

Attachment 2

Aging Management Review

Work Split Assignments

Table 3.1.2-1. Reactor Coolant System - Class 1 Piping/Components System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Bolting for Flanged Piping Joints, RCP and Valve Closure	Mechanical Closure Integrity	Low Alloy Steel	Borated Water Leaks (External)	Loss of Mechanical Closure Integrity due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.C2.3-f, IV.C2.4-f	3.1.1-38	A
			Containment (External)	Loss of Mechanical Closure Integrity due to Stress Relaxation	Bolting Integrity Program	IV.C2.3-g, IV.C2.4-g	3.1.1-26	B, 7
Orifices and Reducers	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, 140°F < T < 480°F (Internal)	Cracking due to SCC	Water Chemistry Control Program	(IV.C2.2-h)	(3.1.1-07)	D, 20
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.2-h)	(3.1.1-07)	H, 5, 21
	Restrict Flow (Throttling)	Stainless Steel	Containment (External)	None	None Required			J

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Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Piping and Fittings < 4 in. NPS	Pressure Boundary	Wrought Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.1-g, IV.C2.2-h	3.1.1-07	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.1-g, IV.C2.2-h	3.1.1-07	B
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.1-g, IV.C2.2-h)	(3.1.1-07)	H, 5, 21
Piping and Fittings > 4 in. NPS	Pressure Boundary	Wrought Stainless Steel	Containment (External)	None	None Required			J

Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Primary, 140×F<T<480×F (Internal)	Erosion	One-Time Inspection Program	(IV.C2.2-h)	(3.1.1-07)	H, 5, 39
			Treated Water - Primary, T>480×F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.1-c, IV.C2.2-f	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.1-c, IV.C2.2-f	3.1.1-36	B
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.1-c, IV.C2.2-f)	(3.1.1-36)	H, 5, 21

Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Piping Welds and Vent Connections (Nickel Alloys)	Pressure Boundary	Alloy 690 and 82/152 Weld Material (Unit 2 only)	Treated Water - Primary, T>480°F (Internal)	Cracking due to SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.C2.1-c)	(3.1.1-36)	F, 5
					Reactor Coolant System Alloy 600 Inspection Program	(IV.A2.7-b)	(3.1.1-35)	D
					Water Chemistry Control Program	(IV.C2.1-c)	(3.1.1-36)	F, 5
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.1-c)	(3.1.1-36)	F, 5, 21
Primary Loop Elbows	Pressure Boundary	Cast Stainless Steel	Containment (External)	None	None Required			J

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Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.1-e	3.1.1-13	4
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.1-e	3.1.1-13	B
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.1-e)	(3.1.1-13)	H, 5, 21
Reactor Coolant Pump Lugs	Structural Support	Stainless Steel	Containment (External)	Cracking due to Flaw Growth	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program			J, 5

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Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Reactor Coolant Pumps (casing and main flange)	Pressure Boundary	Cast Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.3-b	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.3-b	3.1.1-36	B
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.3-b)	(3.1.1-36)	H, 5, 21

Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
				Reduction in Fracture Toughness due to Thermal Embrittlement	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.3-c	3.1.1-23	B
Reactor Coolant Pumps (thermal barrier flange)	Pressure Boundary	Wrought Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.C2.3-b)	(3.1.1-36)	F, 5
				Cracking due to SCC	Water Chemistry Control Program	(IV.C2.3-b)	(3.1.1-36)	F, 5

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Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.3-b)	(3.1.1-36)	H, 5, 21
Thermal Barrier Heat Exchanger Tubing	Pressure Boundary	Stainless Steel	Treated Water - Other	Cracking due to SCC	Closed-Cycle Cooling Water System Surveillance Program			J, 5
				Loss of Material due to Corrosion	Closed-Cycle Cooling Water System Surveillance Program			J, 5
Thermowells	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to SCC	Water Chemistry Control Program	(IV.C2.1-g, IV.C2.2-h)	(3.1.1-07)	B, 20

Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.1-g, IV.C2.2-h)	(3.1.1-07)	H, 5, 21
Valves < 4in. NPS	Pressure Boundary	Cast Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.4-b	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.4-b	3.1.1-36	B
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	H, 5, 21

Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
				Reduction in Fracture Toughness due to Thermal Embrittlement	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.4-c	3.1.1-23	B
Valves < 4in. NPS	Pressure Boundary	Wrought Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.C2.4-b)	(3.1.1-36)	F, 5
				Cracking due to SCC	Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	F, 5

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Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	F, 5, 21
Valves > 4 in. NPS	Pressure Boundary	Carbon Steel (strongback only)	Containment (External)	None	None Required			J
			Borated Water Leaks (External)	Loss of Mechanical Closure Integrity due to Aggressive Chemical Attack	Boric Acid Corrosion Program	(IV.C2.4-f)	(3.1.1-38)	C
		Cast Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.4-b	3.1.1-36	B

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Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.4-b	3.1.1-36	B
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	H, 5, 21
Valves > 4 in. NPS	Pressure Boundary	Cast Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Reduction in Fracture Toughness due to Thermal Embrittlement	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.4-c	3.1.1-23	B
		Wrought Stainless Steel	Containment (External)	None	None Required			J

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Table 3.1.2-1. Reactor Coolant System - Class One Piping/Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.C2.4-b)	(3.1.1-36)	F, 5
				Cracking due to SCC	Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	F, 5
				Loss of Material due to Corrosion	Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	F, 5, 21

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Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
BMI Guide Tubes	Pressure Boundary	Stainless Steel	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to SCC	Water Chemistry Control Program			J, 5
	Support Thimble Tubes	Stainless Steel	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to SCC	Water Chemistry Control Program			J, 5
Bottom Head Dome	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A
			Containment (External)	None	None Required			J

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Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Bottom Head Dome	Pressure Boundary	Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D
	Support RV Internals	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A
			Containment (External)	None	None Required			J
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D
Bottom Head Torus	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Containment (External)	None	None Required			J
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D
Bottom Head Torus	Support RV Internals	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A
			Containment (External)	None	None Required			J
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D

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Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Closure Head Dome	Pressure Boundary	Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D
Closure Head Dome (Including Lifting Lugs)	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.1-a	3.1.1-38	A
			Containment (External)	None	None Required			J
Closure Head Flange	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.1-a	3.1.1-38	A
			Containment (External)	None	None Required			J
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D
Closure Studs, Nuts, and Washers	Mechanical Closure Integrity	Low Alloy Steel	Borated Water Leaks (External)	Cracking due to SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.1-c	3.1.1-22	E, 6
				Loss of Mechanical Closure Integrity due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.A2.1-a	3.1.1-38	A
			Containment (External)	Loss of Material due to Wear	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.1-d	3.1.1-47	E, 6
				Loss of Mechanical Closure Integrity due to Stress Relaxation	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.1-d)	(3.1.1-47)	H, 5

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Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Core Support Pads	Support RV Internals	Alloy 600	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.6-a	3.1.1-12	4
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.6-a	3.1.1-12	4
				Loss of Material due to Wear	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.6-a)	(3.1.1-12) (3.1.1-40)	H, 5
CRDM Housing Tubes (Head Adapters)	Pressure Boundary	Alloy 600	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	Reactor Coolant System Alloy 600 Inspection Program	IV.A2.2-a	3.1.1-35	B
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.2-a	3.1.1-35	B

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CRDM Housings and Flanges (Rod Travel and Latch)	Pressure Boundary	Stainless Steel	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.2-b	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.2-b	3.1.1-36	B
Instrumentation Tubes and Safe Ends	Pressure Boundary	Alloy 600 Stainless Steel	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	Reactor Coolant System Alloy 600 Inspection Program	IV.A2.7-a	3.1.1-12	B
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.7-a	3.1.1-12	B

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
	Support Thimble Tubes	Alloy 600 Stainless Steel	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
Instrumentation Tubes and Safe Ends	Support Thimble Tubes	Alloy 600 Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	Reactor Coolant System Alloy 600 Inspection Program	IV.A2.7-a	3.1.1-12	B
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.7-a	3.1.1-12	B
Intermediate Shell (including circumferential Beltline weld)	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A
			Containment (External)	None	None Required			J
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Reduction in Fracture Toughness due to Irradiation Embrittlement	Reactor Vessel Surveillance Program	IV.A2.5-c	3.1.1-05	B
Lower Shell	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A
			Containment (External)	None	None Required			J
Lower Shell	Pressure Boundary	Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D
				Reduction in Fracture Toughness due to Irradiation Embrittlement	Reactor Vessel Surveillance Program	IV.A2.5-c	3.1.1-05	B

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Nozzle Support Pads and External Support Brackets	Structural Support	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	(IV.A2.5.e)	(3.1.1-38)	C
			Containment (External)	None	None Required			J
Primary Inlet Nozzles	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	(IV.A2.5.e)	(3.1.1-38)	C
			Containment (External)	None	None Required			J
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.4-b	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.4-b	3.1.1-36	B
Primary Nozzle Safe Ends	Pressure Boundary	Stainless Steel Weld Butter	Containment (External)	None	None Required			J

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.4-b	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.4-b	3.1.1-36	B
Primary Outlet Nozzles	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	(IV.A2.5.e)	(3.1.1-38)	C
			Containment (External)	None	None Required			J
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.4-b	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.4-b	3.1.1-36	B
Refueling Seal Ledge	Structural Support	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	(IV.A2.5.e)	(3.1.1-38)	C

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Containment (External)	None	None Required			J
RV Components (in contact with primary water)	Pressure Boundary	Alloy 600 Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Loss of Material due to Corrosion	Water Chemistry Control Program			J, 5, 21
Seal Table Fittings	Pressure Boundary	Stainless Steel	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Treated Water - Primary, T<140°F (Internal)	Cracking due to SCC	Water Chemistry Control Program			J, 5
	Support Thimble Tubes	Stainless Steel	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Treated Water - Primary, T<140°F (Internal)	Cracking due to SCC	Water Chemistry Control Program			J, 5

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Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Upper Shell	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A
			Containment (External)	None	None Required			J
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480×F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D
Vent Pipe	Pressure Boundary	Alloy 600 Stainless Steel	Borated Water Leaks (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Treated Water - Primary, T>480×F (Internal)	Cracking due to Flaw Growth or SCC	Reactor Coolant System Alloy 600 Inspection Program	IV.A2.7-b	3.1.1-35	B
				Cracking due to SCC	Water Chemistry Control Program	IV.A2.7-b	3.1.1-35	B

Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Ventilation Shroud Support Ring	Structural Support	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.1-a	3.1.1-38	A
			Containment (External)	None	None Required			J
Vessel Flange	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A
			Containment (External)	Loss of Material due to Wear	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.5-f	3.1.1-40	B
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D

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Table 3.1.2-2. Reactor Coolant System - Reactor Vessel - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
	Support RV Internals	Low Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Boric Acid Corrosion	Boric Acid Corrosion Program	IV.A2.5.e	3.1.1-38	A
			Containment (External)	Loss of Material due to Wear	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.A2.5-f	3.1.1-40	B
		Low Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480xF (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.A2.4-b)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.A2.4-b)	(3.1.1-36)	D

Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Baffle and Former Plates	Flow Distribution Gamma/ Neutron Shielding Support Core	ASTM A240 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.4-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.4-a	3.1.1-45	B
				Reduction in Fracture Toughness	Reactor Vessel Internals Program	IV.B2.4-e	3.1.1-43	B
RVI Baffle/ Barrel -Former Bolts	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation Support RCCAs	Type 347, 316 or 304 SS	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.4-c	3.1.1-15	4
					Water Chemistry Control Program	IV.B2.4-c	3.1.1-15	4

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Preload	Reactor Vessel Internals Program	IV.B2.4-h	3.1.1-16	4
				Reduction in Fracture Toughness	Reactor Vessel Internals Program	IV.B2.4-f	3.1.1-06	4
2-30 RVI Bottom Mounted Instrumentation Column cruciforms.	Support In-core Instrumentation	ASTM A296, CF-8 - ASTM A743/A744 (castings)	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.5-k)	(3.1.1-45)	D
					Water Chemistry Control Program	(IV.B2.5-k)	(3.1.1-45)	D
				Reduction in Fracture Toughness	Reactor Vessel Internals Program	(IV.B2.5-m)	(3.1.1-37)	E, 6
RVI Bottom Mounted Instrumentation Columns	Support In-core Instrumentation	SS Type 304 flats, ASTM A276 /A269 /A213 /A298 (weld) Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.6-a	3.1.1-45	B

Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	IV.B2.6-a	3.1.1-45	B
RVI Clevis Insert Bolt Locking Mechanisms	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation Support RCCAs	ASTM B166 (Inconel 600)	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.5-e)	(3.1.1-45)	D
					Water Chemistry Control Program	(IV.B2.5-e)	(3.1.1-45)	D
RVI Clevis Insert Bolts	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation Support RCCAs	W PDS-70041-EJ (Inconel X-750)	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.5-e	3.1.1-45	B, 22
					Water Chemistry Control Program	IV.B2.5-e	3.1.1-45	B, 22
				Loss of Preload	Reactor Vessel Internals Program	IV.B2.5-i	3.1.1-42	E, 6, 22

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Clevis Inserts	Support Core	ASTM B166 (Inconel 600) #6 Hayes Stellite coating	Treated Water - Primary, T>480xF (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.5-a)	(3.1.1-45)	F, 5
					Water Chemistry Control Program	(IV.B2.5-a)	(3.1.1-45)	F, 5
				Loss of Material Due to Wear	Reactor Vessel Internals Program	(IV.B2.5-o)	(3.1.1-40)	F, E, 6
RVI Core Barrel - plates	Flow Distribution Gamma/ Neutron Shielding Support Core	ASTM A240 Type 304	Treated Water - Primary, T>480xF (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.3-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.3-a	3.1.1-45	B
				Reduction in fracture toughness	Reactor Vessel Internals Program	IV.B2.3-c	3.1.1-43	B

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Core Barrel Flange – ring forging, Core Barrel (guide key)	Flow Distribution Gamma/ Neutron Shielding Support Core	ASTM A182 F304, Type 304 SS bar – U2	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.3-a	3.1.1-45	B, 22
					Water Chemistry Control Program	IV.B2.3-a	3.1.1-45	B, 22
RVI Core Barrel Outlet Nozzle - Nozzle forgings	Flow Distribution	ASTM A182 F304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.3-a	3.1.1-45	B, 22
					Water Chemistry Control Program	IV.B2.3-a	3.1.1-45	B, 22
RVI Exposed surfaces and crevice locations	NOTE	Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Loss of Material	Water Chemistry Control Program	(IV.B2.3-a)	(3.1.1-45)	H, 21

Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI RCCA Flexures, GT Support pin (split pin)	Support RCCAs	Inconel X-750, and U1 - Inconel X-750, U2- Inconel X-750 original and Rev. B	Treated Water - Primary, T>480°F (Internal)	Cracking	Water Chemistry Control Program	IV.B2.2-d	3.1.1-45	B
					Reactor Vessel Internals Program	IV.B2.2-d	3.1.1-45	B
RVI Flux Thimbles Support In-core Instrumentation	Pressure Boundary	Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.6-a)	(3.1.1-45)	D
					Water Chemistry Control Program	(IV.B2.6-a)	(3.1.1-45)	D
				Loss of Material Due to Wear	Thimble Tube Inspection Program	IV.B2.6-c	3.1.1-40	B
				Reduction in Fracture Toughness	Reactor Vessel Internals Program	(IV.B2.6-c)	(3.1.1-40)	H, 5

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Head and Vessel Alignment Pins	Support RCCAs	Type 304 SS bar	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.1-i)	(3.1.1-45)	D
					Water Chemistry Control Program	(IV.B2.1-i)	(3.1.1-45)	D
RVI High temperature and neutron fluence locations	NOTEa	Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Dimensional Change	Reactor Vessel Internals Program	IV.B2.1-b, IV.B2.1-f, IV.B2.1-j, IV.B2.2-b, IV.B2.2-e, IV.B2.3-b, IV.B2.4-b, IV.B2.4-d, IV.B2.5-b, IV.B2.5-f, IV.B2.5-l, IV.B2.6-b	3.1.1-11	4
RVI Holddown Spring	Support Core	W PS 10725-HA Rev C, AISI 403	Treated Water - (Internal) Primary, T>480°F	Cracking	Reactor Vessel Internals Program	IV.B2.1-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.1-a	3.1.1-45	B
				Loss of Preload	Reactor Vessel Internals Program	IV.B2.1-d	3.1.1-42	E, 6

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Lower Core Plate	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation	ASTM A240 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.5-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.5-a	3.1.1-45	B
				Reduction in fracture toughness	Reactor Vessel Internals Program	IV.B2.5-c	3.1.1-43	B
RVI Lower Core Plate Fuel Alignment Pins	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation	ASTM A276 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.5-e	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.5-e	3.1.1-45	B
				Reduction in fracture toughness	Reactor Vessel Internals Program	IV.B2.5-g	3.1.1-43	B

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Lower Support Columns, Sleeves	Support In-core Instrumentation Secondary Core Support Support Core	ASTM A276 Type 304 ASTM A312 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.5-k	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.5-k	3.1.1-45	B
				Reduction in fracture toughness	Reactor Vessel Internals Program	IV.B2.5-n	3.1.1-43	B
RVI Lower Support Forging	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation	ASTM A182 F304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.5-k	3.1.1-45	B, 22
					Water Chemistry Control Program	IV.B2.5-k	3.1.1-45	B, 22

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Lower Support Plate Column Bolts/Nuts	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation Support RCCAs	Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.5-e	3.1.1-45	B, 22
					Water Chemistry Control Program	IV.B2.5-e	3.1.1-45	B, 22
				Loss of Preload	Reactor Vessel Internals Program	IV.B2.5-h	3.1.1-48	E, 6
RVI Radial Support Keys	Support Core	ASTM A240 Type 304, #6; Hayes Stellite coating	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.5-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.5-a	3.1.1-45	B
				Loss of Material Due to Wear	Reactor Vessel Internals Program	IV.B2.5-o	3.1.1-40	E, 6

Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI RCCA Guide Tube Bolts	Flow Distribution Secondary Core Support Support Core Support Support In-core Instrumentation Support RCCAs	Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.2-d	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.2-d	3.1.1-45	B
RVI RCCA Guide Tubes, Inserts, and Flow Downcomers	Support RCCAs	ASTM A276 and A240 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.2-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.2-a	3.1.1-45	B
RVI Secondary Core Support - base plate, energy absorber, Diffuser Plate (Flow Mixer Plate)	Flow Distribution Secondary Core Support Support Core Support Support In-core Instrumentation	ASTM A276 /A240 /276 /240 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.5-k)	(3.1.1-45)	D, 22

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(IV.B2.5-k)	(3.1.1-45)	D, 22
RVI Secondary Core Support Assy - guide post, housing	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation	ACI CF-8 Type 304 – U2	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.5-k)	(3.1.1-45)	D
					Water Chemistry Control Program	(IV.B2.5-k)	(3.1.1-45)	D
				Reduction in Fracture Toughness	Reactor Vessel Internals Program	(IV.B2.5-m)	(3.1.1-37)	E, 6
RVI (Head-Cooling) Spray nozzle bodies, and nozzle tips	Flow Distribution	Type 304 SS bar – U2, ASTM A276 Type 304 – U2	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.1-a)	(3.1.1-45)	D
					Water Chemistry Control Program	(IV.B2.1-a)	(3.1.1-45)	D

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Thermal shield - plate material, flexures, Dowel Pin	Gamma/ Neutron Shielding	ASTM A240/A240/A276 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.3-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.3-a	3.1.1-45	B
				Reduction in Fracture Toughness	Reactor Vessel Internals Program	IV.B2.3-c	3.1.1-43	B
RVI Upper Core Plate	Flow Distribution Support Core	ASTM A240 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.1-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.1-a	3.1.1-45	B
				Reduction in fracture toughness	Reactor Vessel Internals Program	(IV.B2.3-c)	(3.1.1-43)	H, 5
RVI Upper Core Plate Alignment Pin	Support RCCAs	ASTM A276 / 304 SS bar – U2, Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.1-i	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.1-i	3.1.1-45	B

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material Due to Wear	Reactor Vessel Internals Program	IV.B2.1-l	3.1.1-40	E, 6
RVI Upper Core Plate Fuel Alignment Pin	Flow Distribution Support Core	ASTM A276 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.1-i	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.1-i	3.1.1-45	B
				Reduction in fracture toughness	Reactor Vessel Internals Program	(IV.B2.3-c)	(3.1.1-43)	H, 5
RVI Upper Instrumentation Column, Conduit (tubing and supports), Spacers/ Clamps	Support In-core Instrumentation	Stainless steel	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	(IV.B2.1-a)	(3.1.1-45)	D
					Water Chemistry Control Program	(IV.B2.1-a)	(3.1.1-45)	D
RVI Upper Support Column and Bottom Nozzles	Support In-core Instrumentation, Support RCCAs	ASTM A213 /A249 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.1-e	3.1.1-45	B

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	IV.B2.1-e	3.1.1-45	B
RVI Upper Support Column- instr. Fittings- for installation of instrumentation.	Support In-core Instrumentation Support RCCAs	ASTM A276 / A240 / A351 (castings) / A213	Treated Water - Primary, T>480×F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.1-e	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.1-e	3.1.1-45	B
				Reduction in Fracture Toughness	Reactor Vessel Internals Program	IV.B2.1-g	3.1.1-37	E, 6
RVI Upper Support Column- USC Base castings	Support In-core Instrumentation Support RCCAs	ASTM A351 CF-8- U2	Treated Water - Primary, T>480×F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.1-e	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.1-e	3.1.1-45	B
				Reduction in Fracture Toughness	Reactor Vessel Internals Program	IV.B2.1-g	3.1.1-37	E, 6

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Table 3.1.2-3. Reactor Coolant System - Reactor Vessel Internals - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
RVI Upper Support Column Bolts	Flow Distribution Secondary Core Support Support Core Support In-core Instrumentation Support RCCAs	Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Loss of Preload	Reactor Vessel Internals Program	IV.B2.1-k	3.1.1-48	E, 6
				Cracking	Reactor Vessel Internals Program	IV.B2.1-i	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.1-i	3.1.1-45	B
RVI Upper Support Plate, deep beam weldment, top plate, ribs, hollow rounds	Support RCCAs	ASTM A240 Type 304	Treated Water - Primary, T>480°F (Internal)	Cracking	Reactor Vessel Internals Program	IV.B2.1-a	3.1.1-45	B
					Water Chemistry Control Program	IV.B2.1-a	3.1.1-45	B

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
PZR Heater Well and Heater Sheath	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-r	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-r	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-r)	(3.1.1-36)	H, 21
PZR Instrument Nozzles	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-g	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-g	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-g)	(3.1.1-36)	H, 21
PZR Lower Head	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.C2.5-b	3.1.1-38	A
			Containment (External)	None	None Required			J
		Carbon Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-c	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-c	3.1.1-36	B

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-c)	(3.1.1-36)	H, 21
PZR Manway Cover	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.C2.5-o	3.1.1-38	A
			Containment (External)	None	None Required			J
		Carbon Steel w/ Stainless Steel Disc Insert	Treated Water - Primary, T>480°F (Internal)	Cracking due to SCC (disc insert)	Water Chemistry Control Program	IV.C2.5-m	3.1.1-36	B, 20
				Loss of Material (disc insert)	Water Chemistry Control Program	(IV.C2.5-m)	(3.1.1-36)	H, 21
PZR Manway Cover Bolts	Mechanical Closure Integrity	Low Alloy Steel	Borated Water Leaks (External)	Loss of Mechanical Closure Integrity due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.C2.5-o	3.1.1-38	A

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Containment Air (External)	Loss of Mechanical Closure Integrity due to Stress Relaxation	Bolting Integrity Program	IV.C2.5-p	3.1.1-26	B, 7
PZR Relief Nozzle	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive	Boric Acid Corrosion Program	(IV.C2.5-b)	(3.1.1-38)	C
			Containment (External)	None	None Required			J
		Carbon Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.C2.5-g)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.C2.5-g)	(3.1.1-36)	D
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-g)	(3.1.1-36)	H, 21
PZR Relief Nozzle Safe End	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-h	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-h	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-h)	(3.1.1-36)	H, 21
PZR Safety Nozzle	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	(IV.C2.5-b)	(3.1.1-38)	C
			Containment (External)	None	None Required			J
		Carbon Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.C2.5-g)	(3.1.1-36)	D
				Cracking due to SCC	Water Chemistry Control Program	(IV.C2.5-g)	(3.1.1-36)	D

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-g)	(3.1.1-36)	H, 21
PZR Safety Nozzle Safe End	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-h	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-h	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-h)	(3.1.1-36)	H, 21
PZR Shell	Pressure Boundary	Alloy Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.C2.5-b	3.1.1-38	A
			Containment (External)	None	None Required			J

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Alloy Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-c	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-c	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-c)	(3.1.1-36)	H, 21
PZR Spray Nozzle	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	(IV.C2.5-b)	(3.1.1-38)	C
			Containment (External)	None	None Required			J
		Carbon Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-g	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-g	3.1.1-36	B

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-g)	(3.1.1-36)	H, 21
PZR Spray Nozzle Safe End	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-h	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-h	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-h)	(3.1.1-36)	H, 21
PZR Spray Nozzle Thermal Sleeve	Pressure Boundary	Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Cracking due to SCC	Water Chemistry Control Program	(IV.C2.5-h)	(3.1.1-36)	D, 20
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-h)	(3.1.1-36)	H, 21
PZR Support Skirt and Flange	Structural Support	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.C2.5-u	3.1.1-38	A

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Containment (External)	None	None Required			J
PZR Surge Nozzle	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	(IV.C2.5-b)	(3.1.1-38)	C
			Containment (External)	None	None Required			J
		Carbon Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-g	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-g	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-g)	(3.1.1-36)	H, 21
PZR Surge Nozzle Safe End	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-h	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-h	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-h)	(3.1.1-36)	H, 21
PZR Surge Nozzle Thermal Sleeve	Pressure Boundary	Stainless Steel	Treated Water - Primary, T>480°F (Internal)	Cracking due to SCC	Water Chemistry Control Program	(IV.C2.5-h)	(3.1.1-36)	D, 20
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-h)	(3.1.1-36)	H, 21
PZR Upper Head	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.C2.5-b	3.1.1-38	A
			Containment (External)	None	None Required			J

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Table 3.1.2-4. Reactor Coolant System - Pressurizer - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Carbon Steel w/ Stainless Steel Cladding	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.C2.5-c	3.1.1-36	B
				Cracking due to SCC	Water Chemistry Control Program	IV.C2.5-c	3.1.1-36	B
				Loss of Material	Water Chemistry Control Program	(IV.C2.5-c)	(3.1.1-36)	H, 21

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Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
SG Anti-vibration Bars	Provide Support	Chrome-plated Alloy 600 (U1)/SS (U2)	Treated Water - Secondary, T>120×F (Internal)	Cracking due to SCC	Water Chemistry Control Program	(IV.D1.2-h)	(3.1.1-19)	F, H, 4
					Steam Generator Integrity Program	(IV.D1.2-h)	(3.1.1-19)	F, H, 4
SG Blowdown Piping Nozzles and Secondary Side Shell Penetrations	Pressure Boundary	Alloy Steel	Containment (External)	None	None Required			J
			Treated Water - Secondary, T>120×F (Internal)	Loss of Material	Steam Generator Integrity Program	(IV.D1.1-c)	(3.1.1-02)	C, 20
					Water Chemistry Control Program	(IV.D1.1-c)	(3.1.1-02)	D, 20

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Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
SG Components (in contact with primary water)	Pressure Boundary	Stainless Steel Alloy 600/690	Treated Water - Primary, T>480°F (Internal)	Loss of Material	Water Chemistry Control Program	(IV.D1.1-i)	(3.1.1-44)	H, 21
SG Divider Plate	Flow Distribution	Alloy 600/690	Treated Water - Primary, T>480°F (Internal)	Cracking due to SCC	Water Chemistry Control Program	(IV.D1.1-i)	(3.1.1-44)	D, 20
SG Feedwater Nozzle	Pressure Boundary	Alloy Steel	Containment (External)	None	None Required			J
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to Flaw Growth	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.D1.1-c)	(3.1.1-02)	H, 5
				Loss of Material	Steam Generator Integrity Program	(IV.D1.1-c)	(3.1.1-02)	C, 23
					Water Chemistry Control Program	(IV.D1.1-c)	(3.1.1-02)	D, 23
				Loss of Material due to FAC	Flow-Accelerated Corrosion Program	IV.D1.1-d	3.1.1-25	A
					Steam Generator Integrity Program	IV.D1.1-d	3.1.1-25	34

Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
SG Primary Channel Head	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.D1.1-g	3.1.1-38	A
			Containment (External)	None	None Required			J
		Carbon Steel w/ SS Clad	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.D1.1-i	3.1.1-44	B
				Cracking due to SCC	Water Chemistry Control Program	IV.D1.1-i	3.1.1-44	B
SG Primary Inlet and Outlet Nozzle Safe Ends	Pressure Boundary	SS Weld Butter (U1)/SS (U2)	Treated Water - Primary, T>480°F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.D1.1-i	3.1.1-44	B
				Cracking due to SCC	Water Chemistry Control Program	IV.D1.1-i	3.1.1-44	B
			Containment (External)	None	None Required			J

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Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
SG Primary Inlet and Outlet Nozzles	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.D1.1-g	3.1.1-38	A
			Containment (External)	None	None Required			J
		Carbon Steel w/ SS Clad	Treated Water - Primary, T>480×F (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.D1.1-i	3.1.1-44	B
				Cracking due to SCC	Water Chemistry Control Program	IV.D1.1-i	3.1.1-44	B
SG Primary Manway Bolting	Pressure Boundary	Low Alloy Steel	Borated Water Leaks (External)	Loss of Mechanical Closure Integrity due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.D1.1-k	3.1.1-38	A

Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Mechanical Closure Integrity due to Stress Relaxation	Bolting Integrity Program	(IV.D1.1-l)	(3.1.1-26)	B, 7
SG Primary Manways	Pressure Boundary	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.D1.1-k	3.1.1-38	A
			Containment (External)	None	None Required			J
		Carbon Steel with SS Disc Insert	Treated Water - Primary, T>480xF (Internal)	Cracking due to SCC	Water Chemistry Control Program	IV.D1.1-i	3.1.1-44	B, 20
SG Secondary Closures	Pressure Boundary	Carbon Steel	Containment (External)	None	None Required			J
			Treated Water - Secondary, T>120xF (Internal)	Loss of Material	Steam Generator Integrity Program	(IV.D1.1-c)	(3.1.1-02)	C, 20
					Water Chemistry Control Program	(IV.D1.1-c)	(3.1.1-02)	D, 20

Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
SG Secondary Side Closure Bolting	Pressure Boundary	Low Alloy Steel	Containment (External)	Fatigue Cracking	Periodic Surveillance and Preventive Maintenance Program			H, 37
				Loss of Mechanical Closure Integrity due to Stress Relaxation	Bolting Integrity Program	IV.D1.1-f	3.1.1-26	B, 7
SG Seismic Lugs	Provide Support	Alloy Steel	Containment (External)	None	None Required			J
SG Steam Flow Limiter	Restrict Flow (Throttling)	Alloy 600/690	Treated Water - Secondary, T>120°F (Internal)	Loss of Material	Water Chemistry Control Program			J, 5
SG Tube Plugs (mechanical)	Pressure Boundary	Alloy 690 TT	Treated Water - Primary, T>480°F (Internal)	Cracking due to PWSCC	Steam Generator Integrity Program	IV.D1.2-i	3.1.1-18	A
					Water Chemistry Control Program	IV.D1.2-i	3.1.1-18	B
SG Steam Outlet Nozzle	Pressure Boundary	Alloy Steel	Containment (External)	None	None Required			J

Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to Flaw Growth	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.D1.1-c)	(3.1.1-02)	H, 5, 38
				Loss of Material	Steam Generator Integrity Program	(IV.D1.1-c)	(3.1.1-02)	C, 23(U1), 20(U2)
					Water Chemistry Control Program	(IV.D1.1-c)	(3.1.1-02)	D, 23(U1), 20(U2)
SG Support Pads	Provide Support	Carbon Steel	Borated Water Leaks (External)	Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program	(IV.D1.1-g)	(3.1.1-38)	C
			Containment (External)	None	None Required			J
SG Transition Cone Girth Weld	Pressure Boundary	Alloy Steel	Containment (External)	None	None Required			J
			Treated Water - Secondary, T>120°F (Internal)	Loss of Material	Steam Generator Integrity Program	IV.D1.1-c	3.1.1-02	A, 23(U1), 20(U2)

Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	IV.D1.1-c	3.1.1-02	B, 23(U1), 20(U2)
SG Transition Cone Girth Weld (U1 only)	Pressure Boundary	Alloy Steel	Treated Water - Secondary, T>120°F (Internal)	Cracking due to Flaw Growth	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.D1.1-c	3.1.1-02	H, 5, 38
SG Tube Bundle Wrapper and Wrapper Support System	Provide Support	Carbon Steel	Treated Water - Secondary, T>120°F (Internal)	Loss of Material	Steam Generator Integrity Program	(IV.D1.1-c)	(3.1.1-02)	C, 20
					Water Chemistry Control Program	(IV.D1.1-c)	(3.1.1-02)	D, 20
SG Tube Support Plates	Provide Support	Stainless Steel	Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	Steam Generator Integrity Program	(IV.D1.2-k)	(3.1.1-20)	F, 5
					Water Chemistry Control Program	(IV.D1.2-k)	(3.1.1-20)	F, 5

Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
SG Tubesheet	Pressure Boundary	Alloy Steel	Treated Water - Secondary, T>120xF (Internal)	Cracking due to Flaw Growth	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	(IV.D1.1-c)	(3.1.1-02)	H, 5
				Loss of Material	Steam Generator Integrity Program	(IV.D1.1-c)	(3.1.1-02)	C, 23
					Water Chemistry Control Program	(IV.D1.1-c)	(3.1.1-02)	D, 23
		Alloy Steel, Alloy 600/690 clad	Treated Water - Primary, T>480xF (Internal)	Cracking due to Flaw Growth or SCC	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.D1.1-i	3.1.1-44	B
				Cracking due to SCC	Water Chemistry Control Program	IV.D1.1-i	3.1.1-44	B
SG Upper and Lower Shell, Elliptical Head and Transition Cone	Pressure Boundary	Alloy Steel	Containment (External)	None	None Required			J

Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T>120xF (Internal)	Cracking due to Flaw Growth	ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	IV.D1.1-c	3.1.1-02	H, 5
				Loss of Material	Steam Generator Integrity Program	IV.D1.1-c	3.1.1-02	A, 23
					Water Chemistry Control Program	IV.D1.1-c	3.1.1-02	B, 23
SG U-Tubes	Pressure Boundary	Alloy 600/690 TT	Treated Water - Primary, T>480xF (Internal)	Cracking due to PWSCC	Steam Generator Integrity Program	IV.D1.2-a	3.1.1-18	A
					Water Chemistry Control Program	IV.D1.2-a	3.1.1-18	B
			Treated Water - Secondary, T>120xF (Internal)	Cracking due to IGA/IGSCC	Steam Generator Integrity Program	IV.D1.2-b, IV.D1.2-c	3.1.1-18	A
					Water Chemistry Control Program	IV.D1.2-b, IV.D1.2-c	3.1.1-18	B
				Loss of Material due to Pitting	Steam Generator Integrity Program	IV.D1.2-f	3.1.1-18	A

Table 3.1.2-5. Reactor Coolant System - Steam Generators - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	IV.D1.2-f	3.1.1-18	B
				Loss of Material due to Wear	Steam Generator Integrity Program	IV.D1.2-e	3.1.1-18	A

Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	(VII.I.1-a)	(3.3.1-14)	35, A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	(VII.I.2-a)	(3.3.1-24)	35, B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	(VII.I.2-a)	(3.3.1-24)	35, B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Flow Indicators	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	IV.C2.2-f	3.1.1-36	H, 3

Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	IV.C2.2-f	3.1.1-36	H, 3
Flywheel	Flow Control	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.I.1-b)	(3.3.1-05)	35, 4
			N/A (Internal)	None	None Required			2
Heat Exchanger	Pressure Boundary	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	35, 4
			Oil and Fuel Oil (Internal)	Loss Of Material	One-Time Inspection Program	(VII.G.7-b)	(3.3.1-06)	35, C
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C2.1-a)	(3.3.1-15)	35, D
					One-Time Inspection Program	(VII.C2.1-a)	(3.3.1-15)	35, 34
		Copper Alloy (Zn < 15%)	N/A (External)	None	None Required			8

Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil (Internal)	Loss Of Material	One-Time Inspection Program	(VII.G.7-b)	(3.3.1-06)	35, C
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C2.1-a)	(3.3.1-15)	35, F, 5
					One-Time Inspection Program	(VII.C2.1-a)	(3.3.1-15)	35, F, 5
Heat Exchanger	Pressure Boundary	Copper Alloy (Zn > 15%)	N/A (External)	None	None Required			8
			Oil and Fuel Oil (Internal)	Loss Of Material	One-Time Inspection Program	(VII.G.7-b)	(3.3.1-06)	35, C
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C2.1-a)	(3.3.1-15)	35, F, 5
					One-Time Inspection Program	(VII.C2.1-a)	(3.3.1-15)	35, F, 5

Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Borated, T<140×F (Internal)	Loss Of Material	One-Time Inspection Program	IV.C2.2-f	3.1.1-36	H, 3
				Loss Of Material	Water Chemistry Control Program	IV.C2.2-f	3.1.1-36	H, 3
			Treated Water - Primary, T>480×F (Internal)	Cracking due to IGA/IGSCC	One-Time Inspection Program	IV.C2.2-f	3.1.1-36	34, 20
					Water Chemistry Control Program	IV.C2.2-f	3.1.1-36	B, 20
				Cracking due to SCC	One-Time Inspection Program	IV.C2.2-f	3.1.1-36	34, 20
					Water Chemistry Control Program	IV.C2.2-f	3.1.1-36	B, 20
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Treated Water - Primary, T>480×F (Internal)	Loss Of Material	One-Time Inspection Program	IV.C2.2-f	3.1.1-36	H, 3

Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	IV.C2.2-f	3.1.1-36	H, 3
Piping and Fittings	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program			J, 5
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	35, 4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	35, 4
			Treated Water - Primary, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	IV.C2.2-f	3.1.1-36	H, 3
					Water Chemistry Control Program	IV.C2.2-f	3.1.1-36	H, 3

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Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Piping and Fittings	Pressure Boundary	Stainless Steel	Treated Water - Primary, 140×F<T<480×F (Internal)	Cracking due to SCC	One-Time Inspection Program	IV.C2.2-f	3.1.1-36	34, 20
					Water Chemistry Control Program	IV.C2.2-f	3.1.1-36	B, 20
				Loss Of Material	One-Time Inspection Program	IV.C2.2-f	3.1.1-36	H, 3
					Water Chemistry Control Program	IV.C2.2-f	3.1.1-36	H, 3
Seal Table	Support In-Core Instrumentation	Stainless Steel	Containment (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Tanks	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Primary, T<140×F (Internal)	Loss Of Material	One-Time Inspection Program	IV.C2.6-c	3.1.1-36	H, 3
					Water Chemistry Control Program	IV.C2.6-c	3.1.1-36	H, 3

Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Thermowells	Pressure Boundary	Stainless Steel	Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program			J, 5
			Containment (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	35, 36, 4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	35, 36, 4
		Copper Alloy (Zn > 15%)	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J

Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program			J, 5
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Stainless Steel	Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	35, 4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	35, 4
			Treated Water - Primary, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(IV.C2.4-b)	(3.1.1-36)	F, 5, 21, 34
					Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	F, 5, 21

Table 3.1.2-6. Reactor Coolant System - Non-Class 1 RCS Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Primary, T>480°F (Internal)	Cracking due to IGA/IGSCC	One-Time Inspection Program	(IV.C2.4-b)	(3.1.1-36)	F, 5
					Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	F, 5
				Cracking due to SCC	One-Time Inspection Program	(IV.C2.4-b)	(3.1.1-36)	F, 5
					Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	F, 5
				Loss Of Material	One-Time Inspection Program	(IV.C2.4-b)	(3.1.1-36)	F, 5, 21, 34
					Water Chemistry Control Program	(IV.C2.4-b)	(3.1.1-36)	F, 5, 21
Valve Operator	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	35, 4

Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	V.D1.1-d, V.D1.2-b, V.D1.4-c, V.D1.5-b, V.D1.7-a, V.D1.8-b, V.E.1-a	3.2.1-17	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2

Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Flow Elements	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a, (V.A.1-a)	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a, (V.A.1-a)	3.2.1-15	H, 3
Heat Exchanger	Heat Transfer	HX- Stainless Steel	N/A (External)	None	None Required			8
			Treated Water - Borated, T<140°F (Internal)	Loss of Heat Transfer due to Fouling	One-Time Inspection Program	(V.D1.1-a, V.D1.5-a)	(3.2.1-15)	H, 5
					Water Chemistry Control Program	(V.D1.1-a, V.D1.5-a)	(3.2.1-15)	H, 5
			Treated Water - Other (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	H, 5
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	H, 5

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Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	B
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	34
Heat Exchanger	Pressure Boundary	Stainless Steel	N/A (External)	None	None Required			8
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.5-a	3.2.1-13	E, 6
					Water Chemistry Control Program	V.D1.5-a	3.2.1-13	E, 6
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	B

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Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	34
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a, V.D1.4-b	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a, V.D1.4-b	3.2.1-15	H, 3
Level Elements	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a	3.2.1-15	H, 3
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J

Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Containment (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a	3.2.1-15	H, 3
			Treated Water - Borated, T>140xF (Internal)	Cracking due to SCC	One-Time Inspection Program	V.D1.1-a	3.2.1-15	34, 3
					Water Chemistry Control Program	V.D1.1-a	3.2.1-15	B, 3

Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T>140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a	3.2.1-15	H, 3
Pump Casing	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.2-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.2-a	3.2.1-15	H, 3
Restricting Orifices	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.2-c, (V.A.1-a)	3.2.1-08, (3.2.1-15)	H, I, 3
					Water Chemistry Control Program	V.D1.2-c, (V.A.1-a)	3.2.1-08, (3.2.1-15)	H, I, 3

Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
	Restricts Flow	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.2-c, (V.A.1-a)	3.2.1-08, (3.2.1-15)	H, I, 3
					Water Chemistry Control Program	V.D1.2-c, (V.A.1-a)	3.2.1-08, (3.2.1-15)	H, I, 3
Tanks	Pressure Boundary	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			N/A (Internal)	None	None Required			2
		Stainless Steel	Concrete (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (External)	None	None Required			8
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.7-b, V.D1.8-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.7-b, V.D1.8-a	3.2.1-15	H, 3

Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.4-b)	(3.2.1-15)	36, H, 3
					Water Chemistry Control Program	(V.D1.4-b)	(3.2.1-15)	36, H, 3

Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T>140°F (Internal)	Cracking due to SCC	One-Time Inspection Program	(V.D1.4-b)	(3.2.1-15)	36, 5
					Water Chemistry Control Program	(V.D1.4-b)	(3.2.1-15)	36, 5
				Loss Of Material	One-Time Inspection Program	(V.D1.4-b)	(3.2.1-15)	36, H, 3
					Water Chemistry Control Program	(V.D1.4-b)	(3.2.1-15)	36, H, 3
Valve Bodies	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.4-b	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.4-b	3.2.1-15	H, 3

Table 3.2.2-1. Engineered Safety Features - Safety Injection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T>140°F (Internal)	Cracking due to SCC	One-Time Inspection Program	V.D1.4-b	3.2.1-15	34, 3
					Water Chemistry Control Program	V.D1.4-b	3.2.1-15	B, 3
				Loss Of Material	One-Time Inspection Program	V.D1.4-b	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.4-b	3.2.1-15	H, 3

Table 3.2.2-2. Engineered Safety Features - Containment Spray System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	V.A.1-b, V.A.3-b, V.A.4-b, V.A.5-b, V.A.6-d, V.E.1-a	3.2.1-17	A
			N/A (Internal)	None	None Required			1
Educator	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.A.1-c	3.2.1-15	H, 3
					Water Chemistry Control Program	V.A.1-c	3.2.1-15	H, 3
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	B, 7

Table 3.2.2-2. Engineered Safety Features - Containment Spray System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Flow Elements	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.A.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.A.1-a	3.2.1-15	H, 3
Heat Exchanger	Heat Transfer	HX- Stainless Steel	N/A (External)	None	None Required			8
			Treated Water - Borated, T<140xF (Internal)	Loss of Heat Transfer due to Fouling	One-Time Inspection Program	(V.D1.1-a, V.D1.5-a)	(3.2.1-15)	H, 5
					Water Chemistry Control Program	(V.D1.1-a, V.D1.5-a)	(3.2.1-15)	H, 5

Table 3.2.2-2. Engineered Safety Features - Containment Spray System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	(V.D1.5-a)	(3.2.1-13)	H, 5
					One-Time Inspection Program	(V.D1.5-a)	(3.2.1-13)	H, 5
	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	B
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	34
Heat Exchanger	Pressure Boundary	Stainless Steel	N/A (External)	None	None Required			8
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.5-a	3.2.1-13	E, 6

Table 3.2.2-2. Engineered Safety Features - Containment Spray System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	V.D1.5-a	3.2.1-13	E, 6
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	B
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	34
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.A.1-a, V.A.4-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.A.1-a, V.A.4-a	3.2.1-15	H, 3
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	4

Table 3.2.2-2. Engineered Safety Features - Containment Spray System - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Piping and Fittings	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.A.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.A.1-a	3.2.1-15	H, 3
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	4
Pump Casing	Pressure Boundary	Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

Table 3.2.2-2. Engineered Safety Features - Containment Spray System - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.3-a)	(3.2.1-15)	36, H, 3
					Water Chemistry Control Program	(V.A.3-a)	(3.2.1-15)	36, H, 3
Restricting Orifices	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.A.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.A.1-a	3.2.1-15	H, 3
	Restricts Flow	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.A.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.A.1-a	3.2.1-15	H, 3
Spray Nozzle	Flow Control	Stainless Steel	Air and Gas (Internal)	None	None Required			J

Table 3.2.2-2. Engineered Safety Features - Containment Spray System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Containment (External)	None	None Required			J
Tanks	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			N/A (Internal)	None	None Required			2
		Stainless Steel	N/A (External)	None	None Required			8
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	4
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.4-a)	(3.2.1-15)	36, H, 3

Table 3.2.2-2. Engineered Safety Features - Containment Spray System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(V.A.4-a)	(3.2.1-15)	36, H, 3
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	F, 4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	F, 4
Valve Bodies	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	V.A.4-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.A.4-a	3.2.1-15	H, 3
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	4

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Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	V.D1.1-d, V.D1.2-b, V.D1.4-c, V.D1.5-b, V.D1.7-a, V.D1.8-b, V.E.1-a	3.2.1-17	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2

Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Filters/ Strainers	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	H, 3
Filters/ Strainers	Provide Filtration	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	H, 3
Flow Elements	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a, (V.A.1-a)	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a, (V.A.1-a)	3.2.1-15	H, 3

Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Heat Exchanger	Heat Transfer	HX- Stainless Steel	N/A (External)	None	None Required			8
			Treated Water - Borated, T<140xF (Internal)	Loss of Heat Transfer due to Fouling	One-Time Inspection Program	(V.D1.1-a, V.D1.5-a)	(3.2.1-15)	H, 5
					Water Chemistry Control Program	(V.D1.1-a, V.D1.5-a)	(3.2.1-15)	H, 5
			Treated Water - Other (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	H, 5
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	H, 5
Heat Exchanger	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	B

Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	34
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	B
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	34
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (External)	None	None Required			8
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.5-a	3.2.1-13	E, 6
					Water Chemistry Control Program	V.D1.5-a	3.2.1-13	E, 6

Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Heat Exchanger	Pressure Boundary	Stainless Steel	Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	V.D1.5-a	3.2.1-13	B
					One-Time Inspection Program	V.D1.5-a	3.2.1-13	34
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a, V.D1.4-b	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a, V.D1.4-b	3.2.1-15	H, 3
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	35, 4

Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Stainless Steel	Concrete (External)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Piping and Fittings	Pressure Boundary	Stainless Steel	Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	35, 4
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a	3.2.1-15	H, 3
			Treated Water - Borated, T>140°F (Internal)	Cracking due to SCC	One-Time Inspection Program	V.D1.1-a	3.2.1-15	34, 3
					Water Chemistry Control Program	V.D1.1-a	3.2.1-15	B, 3

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Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss Of Material	One-Time Inspection Program	V.D1.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a	3.2.1-15	H, 3
Pump Casing	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	35, 4
Pump Casing	Pressure Boundary	Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.2-a)	(3.2.1-15)	36, H, 3
					Water Chemistry Control Program	(V.D1.2-a)	(3.2.1-15)	36, H, 3

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Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Restricting Orifices	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.2-c, (V.A.1-a)	3.2.1-08, (3.2.1-15)	H, I, 3
					Water Chemistry Control Program	V.D1.2-c, (V.A.1-a)	3.2.1-08, (3.2.1-15)	H, I, 3
	Restricts Flow	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.2-c, (V.A.1-a)	3.2.1-08, (3.2.1-15)	H, I, 3
					Water Chemistry Control Program	V.D1.2-c, (V.A.1-a)	3.2.1-08, (3.2.1-15)	H, I, 3
Sump Screen	Provide Filtration	Stainless Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Containment (External)	None	None Required			J

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Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Tanks	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	35, 4
Thermowells	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.1-a	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.1-a	3.2.1-15	H, 3
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	35, 4

Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Cast Austenitic Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.4-b)	(3.2.1-15)	36, H, 3
					Water Chemistry Control Program	(V.D1.4-b)	(3.2.1-15)	36, H, 3
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	35, 4

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Table 3.2.2-3. Engineered Safety Features - Residual Heat Removal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	V.D1.4-b	3.2.1-15	H, 3
					Water Chemistry Control Program	V.D1.4-b	3.2.1-15	H, 3
Valve Operator	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	35, 4

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Table 3.2.2-4. Engineered Safety Features - Containment Isolation Components System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	V.E.1-a	3.2.1-17	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	B, 7
			N/A (Internal)	None	None Required			2
			Stainless Steel	Containment (External)	None	None Required		
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
			Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4

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Table 3.2.2-4. Engineered Safety Features - Containment Isolation Components System - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	V.E.1-b	3.2.1-10	4
Piping and Fittings	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	V.C.1-b	3.2.1-05	4
					Water Chemistry Control Program	V.C.1-b	3.2.1-05	4
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

Table 3.2.2-4. Engineered Safety Features - Containment Isolation Components System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	F, 4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	F, 4
Valve Bodies	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a, VII.E1.1-b, VII.E1.2-a, VII.E1.3-b, VII.E1.4-a, VII.E1.5-b, VII.E1.7-b, VII.E1.8-d	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Filters/ Strainers	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
	Provide Filtration	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Flow Elements	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Heat Exchanger	Pressure Boundary	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.E1.8-c	3.3.1-15	B
					One-Time Inspection Program	VII.E1.8-c	3.3.1-15	34
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (External)	None	None Required			8
			Treated Water - Borated, T<140×F (Internal)	Loss Of Material	One-Time Inspection Program	VII.E1.8-b	3.3.1-09	H, 3
					Water Chemistry Control Program	VII.E1.8-b	3.3.1-09	H, 3

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.E1.8-b, VII.E1.8-c)	(3.3.1-09, 3.3.1-15)	H, 3
					One-Time Inspection Program	(VII.E1.8-b, VII.E1.8-c)	(3.3.1-09, 3.3.1-15)	H, 3
Heat Exchanger	Pressure Boundary	Stainless Steel	Treated Water - Primary, T<140×F (Internal)	Loss Of Material	One-Time Inspection Program	VII.E1.8-b	3.3.1-09	H, 3
					Water Chemistry Control Program	VII.E1.8-b	3.3.1-09	H, 3
			Treated Water - Primary, 140×F<T<480×F (Internal)	Cracking due to SCC	One-Time Inspection Program	VII.E1.8-b	3.3.1-09	B, 3
					Water Chemistry Control Program	VII.E1.8-b	3.3.1-09	B, 3
				Loss Of Material	One-Time Inspection Program	VII.E1.8-b	3.3.1-09	H, 3
					Water Chemistry Control Program	VII.E1.8-b	3.3.1-09	H, 3

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Piping and Fittings	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T>140×F (Internal)	Cracking due to SCC	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, B, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, B, 3
				Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	35, D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	35, D
Piping and Fittings	Pressure Boundary	Stainless Steel	Treated Water - Primary, 140×F<T<480×F (Internal)	Cracking due to SCC	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, B, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, B, 3
				Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Pump Casing	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.3-a, V.D1.2-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.A.3-a, V.D1.2-a)	(3.2.1-15)	35, H, 3
Tanks	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.7-b, V.D1.8-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.7-b, V.D1.8-a)	(3.2.1-15)	35, H, 3
Thermowells	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140×F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, H, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, H, 3
			Treated Water - Primary, 140×F<T<480× F (Internal)	Cracking due to SCC	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, 34, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, B, 3
				Loss Of Material	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, H, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, H, 3

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, H, 3
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(V.C.1-b)	(3.2.1-05)	35, 4
					Water Chemistry Control Program	(V.C.1-b)	(3.2.1-05)	35, 4
			Treated Water - Primary, 140°F<T<480°F (Internal)	Cracking due to SCC	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 34, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, B, 3
				Loss Of Material	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, H, 3

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Table 3.3.2-1. Auxiliary Systems - Chemical and Volume Control System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, H, 3

Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Flow Elements	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Velocity) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C2.5-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.C2.5-a)	(3.3.1-15)	F, 5
Heat Exchanger	Heat Transfer	HX- Stainless Steel	N/A (External)	None	None Required			8
			Raw Water (Velocity) (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-b)	(3.3.1-17)	F, 5
			Treated Water - Other (Velocity) (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	(VII.C1.3-b)	(3.3.1-17)	F, E, 5
	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Velocity) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C1.3-a	3.3.1-17	E, 5
					One-Time Inspection Program	VII.C1.3-a	3.3.1-17	E, 5
		Stainless Steel	N/A (External)	None	None Required			8
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-a)	(3.3.1-17)	F, 5
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C1.3-a)	(3.3.1-17)	F, E, 5
					One-Time Inspection Program	(VII.C1.3-a)	(3.3.1-17)	F, E, 5

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Heat Exchanger	Pressure Boundary	Stainless Steel	Treated Water - Other (Velocity) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C1.3-a)	(3.3.1-17)	F, E, 5
					One-Time Inspection Program	(VII.C1.3-a)	(3.3.1-17)	F, E, 5
			Treated Water - Primary, T>480°F (Internal)	Cracking due to IGA/IGSCC	Water Chemistry Control Program	(IV.C2.2-f)	(3.1.1-36)	35, D
				Cracking due to SCC	Water Chemistry Control Program	(IV.C2.2-f)	(3.1.1-36)	35, D
				Loss Of Material	Water Chemistry Control Program	(IV.C2.2-f)	(3.1.1-36)	35, H, 5
			Treated Water - Primary, 140°F<T<480°F (Internal)	Cracking due to SCC	Water Chemistry Control Program	(IV.C2.2-f)	(3.1.1-36)	35, D
				Loss Of Material	Water Chemistry Control Program	(IV.C2.2-f)	(3.1.1-36)	35, H, 5
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program	(VIII.F.4-d)	(3.4.1-02)	35, H, 5

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(VIII.F.4-d)	(3.4.1-02)	35, H, 5
				Loss Of Material	One-Time Inspection Program	(VIII.F.4-d)	(3.4.1-02)	35, B
					Water Chemistry Control Program	(VIII.F.4-d)	(3.4.1-02)	35, B
Instrument Valve Assemblies	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program			J, 5
					One-Time Inspection Program			J, 5
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C2.2-a)	(3.3.1-15)	D
					One-Time Inspection Program	(VII.C2.2-a)	(3.3.1-15)	34
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Treated Water - Other (Velocity) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.C2.1-a	3.3.1-15	34
Pump Casing	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Velocity) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C2.3-a	3.3.1-15	B
					One-Time Inspection Program	VII.C2.3-a	3.3.1-15	34
Radiation Monitor	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program			J, 5
					One-Time Inspection Program			J, 5
Tanks	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C2.4-a	3.3.1-15	B
					One-Time Inspection Program	VII.C2.4-a	3.3.1-15	34
Thermowells	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Treated Water - Other (Velocity) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.C2.1-a	3.3.1-15	34
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C2.2-a)	(3.3.1-15)	G, 5

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	(VII.C2.2-a)	(3.3.1-15)	G, 5
			Containment (External)	Loss Of Material	One-Time Inspection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	One-Time Inspection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C2.2-a	3.3.1-15	B
					One-Time Inspection Program	VII.C2.2-a	3.3.1-15	34

Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Carbon/ Low Alloy Steel	Treated Water - Other (Velocity) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C2.2-a	3.3.1-15	B
					One-Time Inspection Program	VII.C2.2-a	3.3.1-15	34
		Copper Alloy (Zn > 15%)	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program			J, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C2.2-a	3.3.1-15	B
					One-Time Inspection Program	VII.C2.2-a	3.3.1-15	34

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Table 3.3.2-2. Auxiliary Systems- Component Cooling Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Velocity) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.C2.2-a	3.3.1-15	B
					One-Time Inspection Program	VII.C2.2-a	3.3.1-15	34

Table 3.3.2-3. Auxiliary Systems - Spent Fuel Cooling System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a, VII.A3.1-a, VII.A3.2-c, VII.A3.3-c, VII.A3.4-b, VII.A3.6-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Flow Elements	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-3. Auxiliary Systems- Spent Fuel Cooling System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Heat Exchanger	Heat Transfer	HX- Stainless Steel	N/A (External)	None	None Required			8
			Raw Water (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D
			Treated Water - Borated, T<140xF (Internal)	Loss of Heat Transfer due to Fouling	One-Time Inspection Program	(VII.E1.8-b)	(3.3.1-09)	H, 5
					Water Chemistry Control Program	(VII.E1.8-b)	(3.3.1-09)	H, 5
	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-3. Auxiliary Systems- Spent Fuel Cooling System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.3-a	3.3.1-17	B
		Stainless Steel	N/A (External)	None	None Required			8
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	(VII.E1.8-b)	(3.3.1-09)	H, 3
					Water Chemistry Control Program	(VII.E1.8-b)	(3.3.1-09)	H, 3
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140xF (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3

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Table 3.3.2-3. Auxiliary Systems- Spent Fuel Cooling System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Piping and Fittings	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Pump Casing	Pressure Boundary	Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.3-a, V.D1.2-a)	(3.2.1-15)	35, 36, H, 3
					Water Chemistry Control Program	(V.A.3-a, V.D1.2-a)	(3.2.1-15)	35, 36, H, 3
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

Table 3.3.2-3. Auxiliary Systems- Spent Fuel Cooling System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, H, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, H, 3
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, H, 3

Table 3.3.2-4. Auxiliary Systems - Waste Disposal System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Flow Indicators	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3

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Table 3.3.2-4. Auxiliary Systems - Waste Disposal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Heat Exchanger	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.C2.4-a)	(3.3.1-15)	D
					One-Time Inspection Program	(VII.C2.4-a)	(3.3.1-15)	34
Heat Exchanger	Pressure Boundary	Copper Alloy (Zn > 15%)	N/A (External)	None	None Required			8
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program			J, 5
					One-Time Inspection Program			J, 5
					Water Chemistry Control Program			J, 5

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Table 3.3.2-4. Auxiliary Systems - Waste Disposal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Instrumentation	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.F1.4-a, VII.F2.4-a, VII.F3.4-a)	(3.3.1-05)	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
		Stainless Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-4. Auxiliary Systems - Waste Disposal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Piping and Fittings	Pressure Boundary	Stainless Steel	Raw Water Drainage (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.D1.1-a)	(3.2.1-15)	35, H, 3
Radiation Monitor	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.1-a, V.D1.1-a)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.A.1-a, V.D1.1-a)	(3.2.1-15)	35, H, 3
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.F1.4-a, VII.F2.4-a, VII.F3.4-a)	(3.3.1-05)	4

Table 3.3.2-4. Auxiliary Systems - Waste Disposal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
		Cast Austenitic Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Raw Water Drainage (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, H, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, 36, H, 3
		Stainless Steel	Indoor - No Air Conditioning (Ext)	None	None Required			J

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Table 3.3.2-4. Auxiliary Systems - Waste Disposal System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Borated, T<140°F (Internal)	Loss Of Material	One-Time Inspection Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, H, 3
					Water Chemistry Control Program	(V.A.4-a, V.D1.4-b)	(3.2.1-15)	35, H, 3

Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Expansion Joints	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	34, 4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D, 15
		Neoprene	Indoor - No Air Conditioning (External)	Change in Material Properties and Cracking	None Required	(VII.F1.1-c)	(3.3.1-02)	I, 16
			Raw Water (Internal)	None	None Required			J, 16

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Filters/ Strainers	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - Air Conditioning (External)	None	None Required			J

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	4, 34
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.6-a	3.3.1-17	B
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.6-a	3.3.1-17	B
Filters/Strainers	Pressure Boundary	Carbon/ Low Alloy Steel	Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.6-a	3.3.1-17	B, 15

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.I.1-b)	(3.3.1-05)	F, 4, 34
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.6-a)	(3.3.1-17)	F, 5
	Provide Filtration	Carbon/ Low Alloy Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	4, 34
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.6-a	3.3.1-17	B
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.6-a	3.3.1-17	B
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.6-a	3.3.1-17	B, 15
Filters/Strainers	Provide Filtration	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.I.1-b)	(3.3.1-05)	F, 4, 34
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.6-a)	(3.3.1-17)	F, 5
Flow Elements	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.4-a	3.3.1-17	B
Flow Indicators	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.4-a)	(3.3.1-17)	D
Heat Exchanger	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (External)	None	None Required			8

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-a)	(3.3.1-17)	F, 5
Heaters/ Coolers	Heat Transfer	Copper Alloy (Zn < 15%)	Indoor - Wetted (External)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program	(VII.F1.2-a)	(3.3.1-05)	H, 5
			Raw Water (Velocity) (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-b)	(3.3.1-17)	H, 5
	Pressure Boundary	Copper Alloy (Zn < 15%)	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Indoor - Wetted (External)	Loss Of Material	Systems Monitoring Program	VII.F1.2-a	3.3.1-05	4

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.3-a	3.3.1-17	B
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.3-a	3.3.1-17	B, 15
Hose Reel	Pressure Boundary	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4, 34
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
Instrument Valve Assemblies	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D, 15
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Buried (External)	Loss Of Material	Buried Services Monitoring Program	VII.C1.1-b	3.3.1-18	A
			Containment (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	34, 4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	34, 4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.1-a	3.3.1-17	B
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.1-a	3.3.1-17	B
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.1-a	3.3.1-17	B, 15
		Stainless Steel	Containment (External)	None	None Required			J

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.1-a	3.3.1-17	B
Pump Casing	Pressure Boundary	Cast Iron	Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.5-a	3.3.1-17	B
			Raw Water (Submerged) (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.I.1-b)	(3.3.1-05)	F, 4
Radiation Monitor	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D
Restricting Orifices	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.4-a	3.3.1-17	B
	Restricts Flow	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.4-a	3.3.1-17	B
Sight Glass	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D
		Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D, 15
Sight Glass	Pressure Boundary	Glass	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	None	None Required			J
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.1-a)	(3.3.1-17)	D

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Thermowells	Pressure Boundary	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	34, 4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	34, 4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.1-a	3.3.1-17	B
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.1-a	3.3.1-17	B, 15

Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Thermowells	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.1-a	3.3.1-17	B
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	34, 4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.I.1-b	3.3.1-05	34, 4

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B, 15
Valve Bodies	Pressure Boundary	Cast Austenitic Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.2-a)	(3.3.1-17)	F, 5, 36
					Periodic Surveillance and Preventive Maintenance Program	(VII.C1.2-a)	(3.3.1-17)	F, 5, 13
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.I.1-b)	(3.3.1-05)	F, 4, 34
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.2-a)	(3.3.1-17)	F, 5

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.2-a)	(3.3.1-17)	F, 5
Valve Bodies	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B
					Periodic Surveillance and Preventive Maintenance Program	VII.C1.2-a	3.3.1-17	13

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B, 15
					Periodic Surveillance and Preventive Maintenance Program	VII.C1.2-a	3.3.1-17	13
		Copper Alloy (Zn > 15%)	Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Copper Alloy (Zn > 15%)	Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B, 15

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Table 3.3.2-5. Auxiliary Systems - Service Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.2-a	3.3.1-17	B

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Accumulators/ Cylinders	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - Air Conditioning (External)	None	None Required			J
Compressor Casing	Pressure Boundary	Cast Iron	Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Fire Protection Program			J, 5
			Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
CS Components	Pressure Boundary	Carbon/ Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a	3.3.1-14	A

Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			N/A (Internal)	None	None Required			1
Expansion Joints	Pressure Boundary	Neoprene	Indoor - No Air Conditioning (External)	Change in Material Properties and Cracking	None Required	(VII.F1.1-c)	(3.3.1-02)	I, 16
			Raw Water (Stagnant) (Internal)	None	None Required			J
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Fasteners/Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Filters/Strainers	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
Filters/Strainers	Provide Filtration	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
Fire Hydrant	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Outdoor (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
Flame Arrestors	Flame Suppression	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Fire Protection Program	(VII.G.8-a)	(3.3.1-22)	D, 19
					One-Time Inspection Program	(VII.G.7-b)	(3.3.1-06)	D
Heat Exchanger	Heat Transfer	HX-Copper Alloy (Zn < 15%)	N/A (External)	None	None required			8
			Raw Water (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Fire Protection Program			J, 5
			Treated Water - Other (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Fire Protection Program			J, 5

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	(VII.G.6-b)	(3.3.1-21)	G, 5
	Pressure Boundary	Copper Alloy (Zn < 15%)	Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	(VII.G.6-b)	(3.3.1-21)	D
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	(VII.G.6-b)	(3.3.1-21)	G, 5
			N/A (External)	None	None required			8
Hose Reel	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
Instrument Valve Assemblies	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	(VII.G.6-b)	(3.3.1-21)	D
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Buried (External)	Loss Of Material	Buried Services Monitoring Program	VII.C1.1-b	3.3.1-18	A
			Concrete (External)	None	None Required			J
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fire Protection Program	VII.G.8-a	3.3.1-22	B
					Fuel Oil Chemistry Control Program	VII.G.8-a	3.3.1-22	B
			Outdoor (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	G, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	G, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-a	3.3.1-21	B
		Cast Iron	Buried (External)	Loss Of Material	Buried Services Monitoring Program	VII.C1.1-c, (VII.C1.1-b)	3.3.1-29, (3.3.1-18)	E, 6
			Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Outdoor (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, G, 4

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, G, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-a	3.3.1-21	B
Pump Casing	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
RCP Oil Collection	Pressure Boundary	Carbon/ Low Alloy Steel	Containment (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil (Internal)	Loss Of Material	One-Time Inspection Program	VII.G.7-a, VII.G.7-b	3.3.1-06	B

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Copper Alloy (Zn > 15%)	Containment (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	Loss Of Material	One-Time Inspection Program	VII.G.7-b	3.3.1-06	B
Sight Glass	Pressure Boundary	Glass	Containment (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	None	None Required			J
Spray Nozzles	Flow Control	Copper Alloy (Zn > 15%)	Air and Gas - W T<140 etted, xF (Internal)	Loss Of Material	Fire Protection Program	(VII.G.6-b)	(3.3.1-21)	G, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
Spray Nozzles	Pressure Boundary	Copper Alloy (Zn > 15%)	Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	Fire Protection Program	(VII.G.6-b)	(3.3.1-21)	G, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
Sprinkler Heads	Flow Control	Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
Tanks	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.G.8-a)	(3.3.1-22)	D, 40
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	(VII.G.8-a)	(3.3.1-22)	D
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	VII.I.1-b	3.3.1-05	4
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fire Protection Program	VII.G.8-a	3.3.1-22	B
					Fuel Oil Chemistry Control Program	VII.G.8-a	3.3.1-22	B
			Outdoor (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	G, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	G, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
		Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil - Pooling (Internal)	Cracking due to SCC	None Required	(VII.G.8-a)	(3.3.1-22)	F, 17
				Loss Of Material	Fuel Oil Chemistry Control Program	(VII.G.8-a)	(3.3.1-22)	F, 5
					Fire Protection Program	(VII.G.8-a)	(3.3.1-22)	F, 5
Valve Bodies	Pressure Boundary	Cast Iron	Buried (External)	Loss Of Material	Buried Services Monitoring Program	VII.C1.1-c, (VII.C1.1-b)	3.3.1-29, (3.3.1-18)	E, 6
			Indoor - No Air Conditioning (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Outdoor (External)	Loss Of Material	Fire Protection Program	(VII.I.1-b)	(3.3.1-05)	F, G, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, G, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Copper Alloy (Zn < 15%)	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Fire Protection Program			J, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
Valve Bodies	Pressure Boundary	Copper Alloy (Zn > 15%)	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Fire Protection Program			J, 5
			Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-6. Auxiliary Systems - Fire Protection System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	VII.G.6-b	3.3.1-21	B
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Fire Protection Program	(VII.G.6-b)	(3.3.1-21)	G, 5

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Table 3.3.2-7. Auxiliary Systems - Emergency Power System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Air Motor	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.H2.2-a	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Drain Trap	Pressure Boundary	Stainless Steel	Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.2-a)	(3.3.1-05)	F, 4
			Indoor - No Air Conditioning (External)	None	None Required			J
Expansion Joints	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.H2.3-a, VII.H2.4-a	3.3.1-05	4

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	VII.H2.5-a	3.3.1-07	B
					One-Time Inspection Program	VII.H2.5-a	3.3.1-07	B
Expansion Joints	Pressure Boundary	Carbon/ Low Alloy Steel	Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.H2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.H2.1-a	3.3.1-15	34
		Elastomer	Air and Gas - Wetted, T<140xF (Internal)	Change in Mat'l Properties due to Elevated Temp.	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
				Cracking due to Elevated Temperature	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Cracking due to Ultraviolet Radiation and Ozone	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
			Indoor - No Air Conditioning (External)	Change in Mat'l Properties due to Elevated Temp.	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
				Cracking due to Elevated Temperature	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
				Cracking due to Ultraviolet Radiation and Ozone	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
Expansion Joints	Pressure Boundary	Neoprene	Air and Gas - Wetted, T<140xF (Internal)	None	None Required			J, 16
			Indoor - No Air Conditioning (External)	Change in Material Properties and Cracking	None Required			J, 16

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.4-a)	(3.3.1-05)	F, 4
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
Fan/blower Housing	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
			Outdoor (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Filters/Strainers	Pressure Boundary	Aluminum	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program			J, 5
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
		Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.H2.2-a, VII.H2.3-a	3.3.1-05	4

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Filters/Strainers	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	VII.H2.5-a	3.3.1-07	B
					One-Time Inspection Program	VII.H2.5-a	3.3.1-07	B
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.H2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.H2.1-a	3.3.1-15	34

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Copper Alloy (Zn < 15%)	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
Filters/Strainers	Provide Filtration	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.H2.2-a, VII.H2.3-a	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J. 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	VII.H2.5-a	3.3.1-07	B
					One-Time Inspection Program	VII.H2.5-a	3.3.1-07	B
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.H2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.H2.1-a	3.3.1-15	34
		Copper Alloy (Zn < 15%)	Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
Flame Arrestors	Flame Suppression	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
Flow Elements	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil - Pooling (Internal)	Cracking due to SCC	None Required			J, 17
				Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Flow Indicators	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	VII.H2.5-a	3.3.1-07	B
					One-Time Inspection Program	VII.H2.5-a	3.3.1-07	B
Heat Exchanger	Heat Transfer	HX- Copper Alloy (Zn < 15%)	Air and Gas - Wetted, T<140xF (Internal)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.2-a)	(3.3.1-05)	F, H, 5
			N/A (External)	None	None Required			8
			Oil and Fuel Oil (Internal)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Outdoor (External)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program			J, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, H, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, H, 5
Heat Exchanger	Heat Transfer	HX-Copper Alloy (Zn > 15%) ^b	N/A (External)	None	None Required			8
			Oil and Fuel Oil (Internal)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Treated Water - Other (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, H, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, H, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		HX- Stainless Steel	N/A (External)	None	None Required			8
			Raw Water (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.H2.1-b)	(3.3.1-17)	F, H, 5
			Treated Water - Other (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, H, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, H, 5
	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			N/A (External)	None	None Required			8
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Heat Exchanger	Pressure Boundary	Carbon/ Low Alloy Steel	Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.H2.1-b	3.3.1-17	B
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.H2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.H2.1-a	3.3.1-15	34
		Copper Alloy (Zn < 15%)	Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.2-a)	(3.3.1-05)	F, 5
			N/A (External)	None	None Required			8
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Outdoor (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	G, 5
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
		Copper Alloy (Zn > 15%)	N/A (External)	None	None Required			8
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
Heat Exchanger	Pressure Boundary	Copper Alloy (Zn > 15%)	Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
		Stainless Steel	N/A (External)	None	None Required			8
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.H2.1-b)	(3.3.1-17)	F, 5
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
Heaters/Coolers	Heat Transfer	HX-Copper Alloy (Zn > 15%) ^b	Indoor - No Air Conditioning (External)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program	(VII.F1.2-a)	(3.3.1-05)	H, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	H, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	H, 5
Heaters/Coolers	Pressure Boundary	Copper Alloy (Zn > 15%)	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
Instrumentation	Pressure Boundary	Glass	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	None	None Required			J

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Instrument Valve Assemblies	Pressure Boundary	Copper Alloy (Zn < 15%)	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
Instrument Valve Assemblies	Pressure Boundary	Copper Alloy (Zn < 15%)	Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
		Stainless Steel	Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.2-a)	(3.3.1-05)	F, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Cracking due to SCC	None Required			J, 17
				Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
Piping and Fittings	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.H2.2-a, VII.H2.3-a, VII.H2.4-a	3.3.1-05	4
			Buried (External)	Loss Of Material	Buried Services Monitoring Program	VII.H1.1-b	3.3.1-18	A
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	VII.H2.5-a	3.3.1-07	B
					One-Time Inspection Program	VII.H2.5-a	3.3.1-07	B
			Outdoor (External)	Loss Of Material	Systems Monitoring Program	VII.H1.1-a	3.3.1-05	4
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.H2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.H2.1-a	3.3.1-15	34
Piping and Fittings	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
		Plastic Pipe	Air and Gas - Wetted, T<140xF (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Cracking due to SCC	None Required			J, 17
				Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
Pump Casing	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	VII.H2.5-a	3.3.1-07	B
					One-Time Inspection Program	VII.H2.5-a	3.3.1-07	B
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.H2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.H2.1-a	3.3.1-15	34

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
Pump Casing	Pressure Boundary	Cast Iron	Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
Restricting Orifices	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Cracking due to SCC	None Required			J, 17
				Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
Restricting Orifices	Restricts Flow	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Cracking due to SCC	None Required			J, 17
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
Sight Glass	Pressure Boundary	Carbon/ Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
Sight Glass	Pressure Boundary	Glass	Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	None	None Required			J
Silencer	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.H2.3-a, VII.H2.4-a	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Tanks	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.H2.2-a	3.3.1-05	4

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Tank Internal Inspection Program	VII.H2.2-a	3.3.1-05	4
			Buried (External)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H1.1-b)	(3.3.1-18)	E, 6
			Concrete (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Tanks	Pressure Boundary	Carbon/ Low Alloy Steel	Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	VII.H1.4-a	3.3.1-07	B
					One-Time Inspection Program	VII.H1.4-a	3.3.1-07	B
			Outdoor (External)	Loss Of Material	Systems Monitoring Program	VII.H1.4-b	3.3.1-23	E, 6
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.H2.1-a	3.3.1-15	B

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	VII.H2.1-a	3.3.1-15	34
Turbine Casing	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Turbo-Charger	Pressure Boundary	Aluminum	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.3-a)	(3.3.1-05)	F, 4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program			J, 5
Turbo-Charger	Pressure Boundary	Cast Iron	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.3-a)	(3.3.1-05)	F, 4

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.H2.2-a, VII.H2.3-a, VII.H2.4-a	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	VII.H2.5-a	3.3.1-07	B
					One-Time Inspection Program	VII.H2.5-a	3.3.1-07	B

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Outdoor (External)	Loss Of Material	Systems Monitoring Program	VII.H1.2-a	3.3.1-05	4
Valve Bodies	Pressure Boundary	Carbon/ Low Alloy Steel	Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.H2.1-a	3.3.1-15	B
					One-Time Inspection Program	VII.H2.1-a	3.3.1-15	34
		Cast Austenitic Stainless Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.2-a, VII.H2.3-a, VII.H2.4-a)	(3.3.1-05)	F, 4
			Indoor - No Air Conditioning (External)	None	None Required			J
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F. 4
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
		Copper Alloy (Zn < 15%)	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.2-a, VII.H2.3-a, VII.H2.4-a)	(3.3.1-05)	F, 4
			Indoor - No Air Conditioning (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Copper Alloy (Zn < 15%)	Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
		Copper Alloy (Zn > 15%)	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.2-a, VII.H2.3-a, VII.H2.4-a)	(3.3.1-05)	F, 4
			Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil - Pooling (Internal)	Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
Valve Bodies	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.H2.2-a, VII.H2.3-a, VII.H2.4-a)	(3.3.1-05)	F, 4
			Indoor - No Air Conditioning (External)	None	None Required			J
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Oil and Fuel Oil - Pooling (Internal)	Cracking due to SCC	None Required			J, 17

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Table 3.3.2-7. Auxiliary Systems- Emergency Power System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss Of Material	Fuel Oil Chemistry Control Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
					One-Time Inspection Program	(VII.H2.5-a)	(3.3.1-07)	F, 5
			Outdoor (External)	None	None Required			J
			Treated Water - Other (Stagnant) (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.H2.1-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.H2.1-a)	(3.3.1-15)	F, 5

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Table 3.3.2-8. Auxiliary Systems - Containment Ventilation System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Accumulators/ Cylinders	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
CS Components	Pressure Boundary	Carbon/Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Damper Housings	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Ductwork	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Fan/blower Housing	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-8. Auxiliary Systems - Containment Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Filters/Strainers	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Heat Exchanger	Heat Transfer	HX-Copper Alloy (Zn < 15%)	Containment (External)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program	(VII.F3.2-a)	(3.3.1-05)	H, 4

Table 3.3.2-8. Auxiliary Systems - Containment Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-b)	(3.3.1-17)	D
	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - Wetted (External)	Loss Of Material	Systems Monitoring Program	VII.F3.2-a	3.3.1-05	4
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-a)	(3.3.1-17)	D
Heaters/Coolers	Heat Transfer	HX-Copper Alloy (Zn < 15%) ^b	Containment (External)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program	(VII.F3.2-a)	(3.3.1-05)	H, 4
			Raw Water (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-b)	(3.3.1-17)	D

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Table 3.3.2-8. Auxiliary Systems - Containment Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - Wetted (External)	Loss Of Material	Systems Monitoring Program	VII.F3.2-a	3.3.1-05	4
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-a)	(3.3.1-17)	D
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Thermowells	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-8. Auxiliary Systems - Containment Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Valve Bodies	Pressure Boundary	Copper Alloy (Zn > 15%)	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
		Elastomer	Air and Gas (Internal)	Change in Mat'l Properties due to Elevated Temp	None Required	VII.F3.1-b	3.3.1-02	I, 16
				Cracking due to Elevated Temperature	None Required	VII.F3.1-b	3.3.1-02	I, 16
				Cracking due to Ultraviolet Radiation and Ozone	None Required	(VII.F3.1-b)	(3.3.1-02)	I, 16

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Table 3.3.2-8. Auxiliary Systems - Containment Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Containment (External)	Change in Mat'l Properties due to Elevated Temp.	Periodic Surveillance and Preventive Maintenance Program	VII.F3.1-b	3.3.1-02	4, 18
				Cracking due to Elevated Temperature	Periodic Surveillance and Preventive Maintenance Program	VII.F3.1-b	3.3.1-02	4, 18
				Cracking due to Ultraviolet Radiation and Ozone	None Required	(VII.F3.1-b)	(3.3.1-02)	I, 16
Valve Bodies	Pressure Boundary	Elastomer	Indoor - No Air Conditioning (External)	Change in Mat'l Properties due to Elevated Temp.	None Required	VII.F3.1-b	3.3.1-02	I, 16
				Cracking due to Elevated Temperature	None Required	VII.F3.1-b	3.3.1-02	I, 16

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Table 3.3.2-8. Auxiliary Systems - Containment Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Cracking due to Ultraviolet Radiation and Ozone	None Required	(VII.F3.1-b)	(3.3.1-02)	I, 16
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Damper Housings	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.F1.1-a, VII.F4.1-a	3.3.1-05	4
			Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Ductwork	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.F1.1-a, VII.F4.1-a	3.3.1-05	4
			Indoor - Air Conditioning (External)	None	None Required			J

Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Ductwork	Pressure Boundary	Elastomer	Air and Gas - Wetted, T<140°F (Internal)	Change in Mat'l Properties due to Elevated Temp.	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
				Cracking due to Elevated Temperature	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
				Cracking due to Ultraviolet Radiation and Ozone	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
			Indoor - No Air Conditioning (External)	Change in Mat'l Properties due to Elevated Temp.	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
				Cracking due to Elevated Temperature	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16

Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Cracking due to Ultraviolet Radiation and Ozone	None Required	(VII.F1.1-b, VII.F4.1-b)	(3.3.1-02)	I, 16
Fan/blower Housing	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.F1.1-a, VII.F4.1-a	3.3.1-05	4
Fan/blower Housing	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Filters/Strainers	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	D
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	34
Filters/Strainers	Provide Filtration	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	D
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	34
Flow Elements	Pressure Boundary	Stainless Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	F, 5

Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Heat Exchanger	Heat Transfer	HX-Copper Alloy (Zn < 15%)	Air and Gas (Internal)	None	None Required			J
			N/A (External)	None	None Required			8
			Raw Water (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.3-b	3.3.1-17	B
			Treated Water - Other (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	H, F, 5
	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			N/A (External)	None	None Required			8
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.3-a	3.3.1-17	B
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	D
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	34
Heat Exchanger	Pressure Boundary	Cast Iron	Air and Gas (Internal)	None	None Required			J

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.I.1-b)	(3.3.1-05)	F, 4
					Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-a)	(3.3.1-17)	F, 5
		Copper Alloy (Zn < 15%)	Air and Gas (Internal)	None	None Required			J
			N/A (External)	None	None Required			8
			Raw Water (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VII.C1.3-a	3.3.1-17	B

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	F, 5
Heaters/Coolers	Heat Transfer	HX-Copper Alloy (Zn < 15%)b	Air and Gas - Wetted, T<140°F (Internal)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program	(VII.F1.2-a)	(3.3.1-05)	H, 5
			N/A (External)	None	None Required			8
			Treated Water - Other (Internal)	Loss of Heat Transfer due to Fouling	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	H, F, 5

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		HX- Stainless Steel	Air and Gas - Wetted, T<140xF (Internal)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program			J, 5
			N/A (External)	None	None Required			8
			Raw Water (Velocity) (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-b)	(3.3.1-17)	F, 5
	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas - Wetted, T<140xF (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.F1.2-a)	(3.3.1-05)	F, 5
			Indoor - Air Conditioning (External)	None	None Required			J

Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Copper Alloy (Zn < 15%)	Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.F1.2-a	3.3.1-05	4
			N/A (External)	None	None Required			8
Heaters/Coolers	Pressure Boundary	Copper Alloy (Zn < 15%)	Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	F, 5
		Stainless Steel	Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.F1.2-a)	(3.3.1-05)	F, 5
			N/A (External)	None	None Required			8

Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Velocity) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	(VII.C1.3-a)	(3.3.1-17)	F, 5
Humidifier	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.F1.1-a	3.3.1-05	4
			Indoor - Air Conditioning (External)	None	None Required			J
Instrument Valve Assemblies	Pressure Boundary	Copper Alloy (Zn < 15%)	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Indoor - No Air Conditioning (External)	None	None Required			J

Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Stainless Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5
			Indoor - No Air Conditioning (External)	None	None Required			J
Instrumentation	Pressure Boundary	Glass	Indoor - Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	None	None Required			J
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	VII.F1.3-a	3.3.1-15	B
					One-Time Inspection Program	VII.F1.3-a	3.3.1-15	34
Piping and Fittings	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - Air Conditioning (External)	None	None Required			J
Pump Casing	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	D
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	34

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Tanks	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	D
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	34
Thermowells	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - Air Conditioning (External)	None	None Required			J
Thermowells	Pressure Boundary	Stainless Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	F, 5

Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	F, 5
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	D
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	34
		Copper Alloy (Zn < 15%)	Indoor - Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	F, 5

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Table 3.3.2-9. Auxiliary Systems - Essential Ventilation System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Stainless Steel	Indoor - Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	Closed-Cycle Cooling Water System Surveillance Program	(VII.F1.3-a)	(3.3.1-15)	F, 5
					One-Time Inspection Program	(VII.F1.3-a)	(3.3.1-15)	F, 5

Table 3.3.2-10. Auxiliary Systems - Plant Sampling System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes	MEAP Code
Plant Sampling System components are addressed in Table 3.1.2-1, Table 3.2.2-3, Table 3.3.2-1, and Table 3.3.2-2.									N/A

Table 3.3.2-11. Auxiliary Systems - Plant Air System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Accumulators/ Cylinders	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Compressor Casing	Pressure Boundary	Cast Iron	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
CS Components	Pressure Boundary	Carbon/Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7

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Table 3.3.2-11. Auxiliary Systems - Plant Air System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.1.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
Fasteners/ Bolting	Mechanical Closure Integrity	Stainless Steel	Containment (External)	None	None Required			J
			Indoor – No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Filters/Strainers	Pressure Boundary	Plastic Pipe	Air and Gas - Wetted, T<140°F (Internal)	None	None Required			J
			Indoor - Air Conditioning (External)	None	None Required			J
	Provide Filtration	Plastic Pipe	Air and Gas - Wetted, T<140°F (Internal)	None	None Required			J

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Table 3.3.2-11. Auxiliary Systems - Plant Air System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - Air Conditioning (External)	None	None Required			J
Flow Indicators	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.D.1-a	3.3.1-19	E, 6
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
		Copper Alloy (Zn < 15%)	Air and Gas (Internal)	None	None Required			J

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Table 3.3.2-11. Auxiliary Systems - Plant Air System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	None	None Required			J
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.D.1-a)	(3.3.1-19)	F, E, 6
			Indoor - No Air Conditioning (External)	None	None Required			J
Tanks	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.D.3-a	3.3.1-19	E, 6
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-11. Auxiliary Systems - Plant Air System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VII.D.2-a	3.3.1-19	E, 6
			Containment (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
		Copper Alloy (Zn < 15%)	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140×F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.D.2-a)	(3.3.1-19)	F, E, 6
			Containment (External)	None	None Required			J

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Table 3.3.2-11. Auxiliary Systems - Plant Air System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
		Copper Alloy (Zn > 15%)	Air and Gas (Internal)	None	None Required			J
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.D.2-a)	(3.3.1-19)	F, E, 6
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
		Stainless Steel	Air and Gas (Internal)	None	None Required			J

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Table 3.3.2-11. Auxiliary Systems - Plant Air System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.D.2-a)	(3.3.1-19)	F, E, 6
Valve Bodies	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - Air Conditioning (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-12. Auxiliary Systems - Containment Hydrogen Detector and Recombiner System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.1.1-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.1.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J

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Table 3.3.2-12. Auxiliary Systems - Containment Hydrogen Detector and Recombiner System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.1.1-b	3.3.1-05	4
Piping and Fittings	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.1.1-b	3.3.1-05	4
		Cast Austenitic Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
		Stainless Steel	Air and Gas (Internal)	None	None Required			J

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Table 3.3.2-12. Auxiliary Systems - Containment Hydrogen Detector and Recombiner System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	None	None Required			J

Table 3.3.2-13. Auxiliary Systems - Circulating Water System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Expansion Joints	Pressure Boundary	Neoprene	Indoor - No Air Conditioning (External)	Change in Material Properties and Cracking	None Required	(VII.F1.1-c)	(3.3.1-02)	I, 16
			Raw Water (Internal)	None	None Required			J, 16
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.C1.1-a)	(3.3.1-17)	E, 6

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Table 3.3.2-13. Auxiliary Systems - Circulating Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Plastic Pipe	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water (Internal)	None	None Required			J
Pump Casing	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.C1.5-a)	(3.3.1-17)	E, 6
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.C1.2-a)	(3.3.1-17)	E, 6

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Table 3.3.2-13. Auxiliary Systems - Circulating Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Raw Water (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VII.C1.2-a)	(3.3.1-17)	E, 6

Table 3.3.2-14. Auxiliary Systems - Treated Water System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Fasteners/Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Raw Water Drainage (Internal)	Loss Of Material	One-Time Inspection Program			J, 5

Table 3.3.2-14. Auxiliary Systems - Treated Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Other (Internal)	Loss Of Material	One-Time Inspection Program			J, 41
		Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	One-Time Inspection Program			J, 41
Piping and Fittings	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Raw Water Drainage (Internal)	Loss Of Material	One-Time Inspection Program			J, 5
			Treated Water - Other (Internal)	Loss Of Material	One-Time Inspection Program			J, 41
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

Table 3.3.2-14. Auxiliary Systems - Treated Water System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water Drainage (Internal)	Loss Of Material	One-Time Inspection Program			J, 5
		Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	One-Time Inspection Program			J, 41
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Other (Internal)	Loss Of Material	One-Time Inspection Program			J, 41

Table 3.3.2-15. Auxiliary Systems - Heating Steam System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VII.I.1-a	3.3.1-14	A
			N/A (Internal)	None	None Required			1
Fasteners/Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VII.I.2-a	3.3.1-24	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Filters/Strainers	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4

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Table 3.3.2-15. Auxiliary Systems - Heating Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.C.1-b)	(3.4.1-02)	F, 5, 35
					Water Chemistry Control Program	(VIII.C.1-b)	(3.4.1-02)	F, 5, 35
Heaters/ Coolers	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program			J, 5
					Water Chemistry Control Program			J, 5
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

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Table 3.3.2-15. Auxiliary Systems - Heating Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T>120xF (Internal)	Loss Of Material	One-Time Inspection Program	VIII.C.1-b, VIII.E.1-b	3.4.1-02	B, 35
					Water Chemistry Control Program	VIII.C.1-b, VIII.E.1-b	3.4.1-02	B, 35
				Loss of Material due to FAC/Erosion-Corrosion	None Required	VIII.C.1-a, VIII.E.1-a	3.4.1-06	I, 12, 35
Pump Casing	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Treated Water - Secondary, T>120xF (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.E.3-a)	(3.4.1-02)	F, 5, 35

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Table 3.3.2-15. Auxiliary Systems - Heating Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(VIII.E.3-a)	(3.4.1-02)	F, 5, 35
Steam Traps	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4
			Treated Water - Secondary, T>120xF (Internal)	Loss Of Material	One-Time Inspection Program	VIII.C.1-b	3.4.1-02	B, 35
					Water Chemistry Control Program	VIII.C.1-b	3.4.1-02	B, 35
Steam Traps	Pressure Boundary	Carbon/Low Alloy Steel	Treated Water - Secondary, T>120xF (Internal)	Loss of Material due to FAC/Erosion-Corrosion	None Required	VIII.C.1-a	3.4.1-06	I, 12, 35
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4

Table 3.3.2-15. Auxiliary Systems - Heating Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T>120xF (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.C.1-b)	(3.4.1-02)	F, 5, 35
					Water Chemistry Control Program	(VIII.C.1-b)	(3.4.1-02)	F, 5, 35
Tanks	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Treated Water - Secondary, T>120xF (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.E.5-a)	(3.4.1-02)	F, 5, 35
					Water Chemistry Control Program	(VIII.E.5-a)	(3.4.1-02)	F, 5, 35
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.3.2-15. Auxiliary Systems - Heating Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program	(VIII.E.5-b)	(3.4.1-02)	H, 5, 35
					Water Chemistry Control Program	(VIII.E.5-b)	(3.4.1-02)	H, 5, 35
Tanks	Pressure Boundary	Stainless Steel	Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.E.5-b)	(3.4.1-02)	D, 35
					Water Chemistry Control Program	(VIII.E.5-b)	(3.4.1-02)	D, 35
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VII.I.1-b	3.3.1-05	4

Table 3.3.2-15. Auxiliary Systems - Heating Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T>120xF (Internal)	Loss Of Material	One-Time Inspection Program	VIII.C.2-b, VIII.E.2-b	3.4.1-02	B, 35
					Water Chemistry Control Program	VIII.C.2-b, VIII.E.2-b	3.4.1-02	B, 35
				Loss of Material due to FAC/Erosion-Corrosion	None Required	VIII.C.2-a, VIII.E.2-a	3.4.1-06	I, 12, 35
		Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VII.I.1-b)	(3.3.1-05)	F, 4
			Treated Water - Secondary, T>120xF (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.E.2-b)	(3.4.1-02)	F, 5, 35

Table 3.3.2-15. Auxiliary Systems - Heating Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(VIII.E.2-b)	(3.4.1-02)	F, 5, 35
Valve Bodies	Pressure Boundary	Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T>120xF (Internal)	Loss Of Material	One-Time Inspection Program			J, 5
					Water Chemistry Control Program			J, 5

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VIII.H.1-a	3.4.1-13	A
			N/A (Internal)	None	None Required			1
Drain Trap	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.C.1-b	3.4.1-02	B
					Water Chemistry Control Program	VIII.C.1-b	3.4.1-02	B
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	VIII.H.2-a	3.4.1-08	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VIII.H.2-a	3.4.1-08	B, 7
			N/A (Internal)	None	None Required			2

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
Flow Elements	Flow Control	Stainless Steel	N/A (External)	None	None Required			8
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5
					Water Chemistry Control Program			H, 5
				Loss Of Material	One-Time Inspection Program	(VIII.E.5-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.E.5-b)	(3.4.1-02)	D

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
	Pressure Boundary	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4, 10
			Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.B1.1-a	3.4.1-07	34, 10
					Water Chemistry Control Program	VIII.B1.1-a	3.4.1-07	B, 10
				Loss of Material due to FAC/Erosion-Corrosion	Flow-Accelerated Corrosion Program	VIII.B1.1-c	3.4.1-06	A, 10
					Water Chemistry Control Program	VIII.B1.1-c	3.4.1-06	34, 10
Flow Elements	Pressure Boundary	Stainless Steel	N/A (External)	None	None Required			8

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5
					Water Chemistry Control Program			H, 5
				Loss Of Material	One-Time Inspection Program	(VIII.E.5-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.E.5-b)	(3.4.1-02)	D
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program			H, 5
				Loss Of Material	One-Time Inspection Program	(VIII.E.5-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.E.5-b)	(3.4.1-02)	D
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.H.1-b)	(3.4.1-05)	4, 11
			Containment (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Outdoor (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.B1.1-a, VIII.C.1-b, VIII.F.1-b	3.4.1-02, 3.4.1-07	B
					Water Chemistry Control Program	VIII.B1.1-a, VIII.C.1-b, VIII.F.1-b	3.4.1-02, 3.4.1-07	B
			Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.B1.1-a, VIII.C.1-b, VIII.F.1-b	3.4.1-02, 3.4.1-07	B
					Water Chemistry Control Program	VIII.B1.1-a, VIII.C.1-b, VIII.F.1-b	3.4.1-02, 3.4.1-07	B
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Treated Water - Secondary, T>120°F (Internal)	Loss of Material due to FAC/Erosion-Corrosion	Water Chemistry Control Program	VIII.B1.1-c, VIII.C.1-a, VIII.F.1-a	3.4.1-06	34

Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Flow-Accelerated Corrosion Program	VIII.B1.1-c, VIII.C.1-a, VIII.F.1-a	3.4.1-06	A
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5
					Water Chemistry Control Program			H, 5

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D
Restricting Orifices	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5
					Water Chemistry Control Program			H, 5
				Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D

Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Steam Traps	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.C.1-b	3.4.1-02	D
					Water Chemistry Control Program	VIII.C.1-b	3.4.1-02	D
				Loss of Material due to FAC/ Erosion-Corrosion	Flow-Accelerated Corrosion Program	VIII.B1.1-c, VIII.C.1-a	3.4.1-06	A
					Water Chemistry Control Program	VIII.B1.1-c, VIII.C.1-a	3.4.1-06	34

Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas - Wetted, T<140°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.H.1-b)	(3.4.1-05)	4, 11
			Containment (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	One-Time Inspection Program	VIII.H.1-b	3.4.1-05	34
					Periodic Surveillance and Preventive Maintenance Program	VIII.H.1-b	3.4.1-05	34, 13
					Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.B1.2-a, VIII.C.2-b, VIII.F.2-b	3.4.1-02, 3.4.1-07	B

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	VIII.B1.2-a, VIII.C.2-b, VIII.F.2-b	3.4.1-02, 3.4.1-07	B
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.B1.2-a, VIII.C.2-b, VIII.F.2-b	3.4.1-02, 3.4.1-07	B
					Periodic Surveillance and Preventive Maintenance Program	VIII.B1.2-a, VIII.C.2-b, VIII.F.2-b	3.4.1-02, 3.4.1-07	34, 13
					Water Chemistry Control Program	VIII.B1.2-a, VIII.C.2-b, VIII.F.2-b	3.4.1-02, 3.4.1-07	B
				Loss of Material due to FAC/Erosion-Corrosion	Flow-Accelerated Corrosion Program	VIII.B1.2-b, VIII.C.2-a, VIII.F.2-a	3.4.1-06	A

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Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					None Required	VIII.B1.2-b, VIII.C.2-a, VIII.F.2-a	3.4.1-06	I, 12
					Water Chemistry Control Program	VIII.B1.2-b, VIII.C.2-a, VIII.F.2-a	3.4.1-06	34
		Copper Alloy (Zn < 15%)	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
Valve Bodies	Pressure Boundary	Copper Alloy (Zn > 15%)	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Containment (External)	None	None Required			J

Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5
					Water Chemistry Control Program			H, 5
				Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D

Table 3.4.2-1. Steam and Power Conversion System - Main and Auxiliary Steam System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D

Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
CS Components	Pressure Boundary	Carbon/Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VIII.H.1-a	3.4.1-13	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	VIII.H.2-a	3.4.1-08	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VIII.H.2-a	3.4.1-08	B, 7
			N/A (Internal)	None	None Required			2
			Stainless Steel	Containment (External)	None	None Required		
Flow Elements	Flow Control	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			N/A (Internal)	None	None Required			2
			N/A (External)	None	None Required			8
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5

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Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Cracking due to SCC	Water Chemistry Control Program			H, 5
Flow Elements	Flow Control	Stainless Steel	Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.E.5-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.E.5-b)	(3.4.1-02)	D
	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4, 10
			Treated Water - Secondary, T>120° F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.D1.1-c	3.4.1-02	B, 10
					Water Chemistry Control Program	VIII.D1.1-c	3.4.1-02	B, 10

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Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to FAC/Erosion-Corrosion	Flow-Accelerated Corrosion Program	VIII.D1.1-a	3.4.1-06	A, 10
					Water Chemistry Control Program	VIII.D1.1-a	3.4.1-06	34, 10
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	Water Chemistry Control Program			H, 5
				Loss Of Material	One-Time Inspection Program	(VIII.E.5-b)	(3.4.1-02)	D

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Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(VIII.E.5-b)	(3.4.1-02)	D
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.D1.1-c	3.4.1-02	B
					Water Chemistry Control Program	VIII.D1.1-c	3.4.1-02	B
			Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.D1.1-c	3.4.1-02	B

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Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	VIII.D1.1-c	3.4.1-02	B
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Treated Water - Secondary, T>120°F (Internal)	Loss of Material due to FAC/Erosion-Corrosion	Flow-Accelerated Corrosion Program	VIII.D1.1-a	3.4.1-06	A
					None Required	VIII.D1.1-a	3.4.1-06	I, 12
					Water Chemistry Control Program	VIII.D1.1-a	3.4.1-06	34
		Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D

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Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	One-Time Inspection Program	VIII.H.1-b	3.4.1-05	34
					Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.D1.2-b	3.4.1-02	B
					Water Chemistry Control Program	VIII.D1.2-b	3.4.1-02	B
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Treated Water - Secondary, T>120° F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.D1.2-b	3.4.1-02	B
					Water Chemistry Control Program	VIII.D1.2-b	3.4.1-02	B

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Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to FAC/Erosion-Corrosion	Flow-Accelerated Corrosion Program	VIII.D1.2-a	3.4.1-06	A
					None Required	VIII.D1.2-a	3.4.1-06	I, 12
					Water Chemistry Control Program	VIII.D1.2-a	3.4.1-06	34
		Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D, 36
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D, 36
Valve Bodies	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J

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Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D
			Treated Water - Secondary, T>120°F (Internal)	Cracking due to SCC	One-Time Inspection Program			H, 5
					Water Chemistry Control Program			H, 5
				Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D

Table 3.4.2-2. Steam and Power Conversion System - Feedwater and Condensate System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D

Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Accumulators/ Cylinders	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
CS Components	Pressure Boundary	Carbon/Low Alloy Steel	Borated Water Leaks (External)	Loss Of Material	Boric Acid Corrosion Program	VIII.H.1-a	3.4.1-13	A
			N/A (Internal)	None	None Required			1
Fasteners/ Bolting	Mechanical Closure Integrity	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Bolting Integrity Program	VIII.H.2-a	3.4.1-08	B, 7
			Indoor - No Air Conditioning (External)	Loss Of Material	Bolting Integrity Program	VIII.H.2-a	3.4.1-08	B, 7
			N/A (Internal)	None	None Required			2
		Stainless Steel	Containment (External)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			N/A (Internal)	None	None Required			2
Flow Elements	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D
Heat Exchanger	Heat Transfer	HX-Stainless Steel	N/A (External)	None	None Required			8
			Oil and Fuel Oil (Internal)	Loss of Heat Transfer due to Fouling	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	H, 5

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Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Raw Water (Stagnant) (Internal)	Loss of Heat Transfer due to Fouling	Open-Cycle Cooling (Service) Water System Surveillance Program	VIII.G.5-b	3.4.1-09	B
	Pressure Boundary	Cast Iron	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	(VIII.H.1-b)	(3.4.1-05)	F, 5
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	(VIII.G.5-d)	(3.4.1-04)	F, 4
			Raw Water (Stagnant) (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.5-a)	(3.4.1-09)	F, 9
Heat Exchanger	Pressure Boundary	Stainless Steel	N/A (External)	None	None Required			8

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Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Oil and Fuel Oil (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program	VIII.G.5-d	3.4.1-04	4
			Raw Water (Stagnant) (Internal)	Loss Of Material	Open-Cycle Cooling (Service) Water System Surveillance Program	VIII.G.5-a	3.4.1-09	B
Instrument Valve Assemblies	Pressure Boundary	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.E.5-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.E.5-b)	(3.4.1-02)	D

Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.G.1-c	3.4.1-02	B
					Water Chemistry Control Program	VIII.G.1-c	3.4.1-02	B
Piping and Fittings	Pressure Boundary	Carbon/Low Alloy Steel	Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.G.1-c	3.4.1-02	B
					Water Chemistry Control Program	VIII.G.1-c	3.4.1-02	B

Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to FAC/Erosion-Corrosion	Flow-Accelerated Corrosion Program	VIII.G.1-a	3.4.1-06	A
					Water Chemistry Control Program	VIII.G.1-a	3.4.1-06	34
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.G.4-b	3.4.1-02	D
					Water Chemistry Control Program	VIII.G.4-b	3.4.1-02	D
Pump Casing	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4

Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.G.2-a	3.4.1-02	B
					Water Chemistry Control Program	VIII.G.2-a	3.4.1-02	B
Restricting Orifices	Pressure Boundary	Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	F, 36, 5
				Loss Of Material	Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	F, 36, 5
	Restricts Flow	Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J

Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	F, 36, 5
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	F, 36, 5
Tanks	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.G.4-a	3.4.1-02	B
					Tank Internal Inspection Program	VIII.G.4-a	3.4.1-02	34
					Water Chemistry Control Program	VIII.G.4-a	3.4.1-02	B
Tanks	Pressure Boundary	Stainless Steel	Air and Gas (Internal)	None	None Required			J

Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	None	None Required			J
Turbine Casing	Pressure Boundary	Carbon/Low Alloy Steel	Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.B1.1-a, VIII.C.1-b)	(3.4.1-02, 3.4.1-07)	D, 14
					Water Chemistry Control Program	(VIII.B1.1-a, VIII.C.1-b)	(3.4.1-02, 3.4.1-07)	D, 14
Valve Bodies	Pressure Boundary	Aluminum	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program			F, 5
		Carbon/Low Alloy Steel	Containment (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4

Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Carbon/Low Alloy Steel	Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.G.3-a	3.4.1-02	B
					Water Chemistry Control Program	VIII.G.3-a	3.4.1-02	B
			Treated Water - Secondary, T>120°F (Internal)	Loss Of Material	One-Time Inspection Program	VIII.G.3-a	3.4.1-02	B
					Water Chemistry Control Program	VIII.G.3-a	3.4.1-02	B
				Loss of Material due to FAC/Erosion-Corrosion	Flow-Accelerated Corrosion Program	(VIII.G.1-a)	(3.4.1-06)	C
					Water Chemistry Control Program	(VIII.G.1-a)	(3.4.1-06)	34

Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
		Cast Austenitic Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	F, 5, 36
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	F, 5, 36
		Copper Alloy (Zn < 15%)	Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	Periodic Surveillance and Preventive Maintenance Program			J, 5, 13
Valve Bodies	Pressure Boundary	Copper Alloy (Zn > 15%)	Air and Gas (Internal)	None	None Required			J

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Table 3.4.2-3. Steam and Power Conversion System - Auxiliary Feedwater System - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Indoor - No Air Conditioning (External)	None	None Required			J
		Stainless Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	None	None Required			J
			Treated Water - Secondary, T<120°F (Internal)	Loss Of Material	One-Time Inspection Program	(VIII.G.4-b)	(3.4.1-02)	D
					Water Chemistry Control Program	(VIII.G.4-b)	(3.4.1-02)	D
Valve Operator	Pressure Boundary	Carbon/Low Alloy Steel	Air and Gas (Internal)	None	None Required			J
			Indoor - No Air Conditioning (External)	Loss Of Material	Systems Monitoring Program	VIII.H.1-b	3.4.1-05	4

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Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - Basemat	Direct Flow Pressure Boundary Shelter SR Support NSR Support SR	Concrete (Reinforced)	Buried (External)	None	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program			26
					Structures Monitoring Program			26
Concrete/Indoor - All: Cylinder walls and buttresses; Dome and ring girder	Direct Flow Fire Barrier Flood Barrier Heat Sink Missile Barrier Pipe Whip Restraint Pressure Boundary Radiation Shielding Shelter SR Support NSR Support SR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program			26

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Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Indoor - All: Internal structure - Columns, beams, slabs, and walls	Direct Flow Fire Barrier Flood Barrier Heat Sink Missile Barrier Pipe Whip Restraint Radiation Shielding Shelter SR Support NSR Support SR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Elastomer/Borated Water - All: RV cavity seal ring	Pressure Boundary	Elastomer	Treated Water - Borated, T<140°F (External)	Change in Mat'l Properties due to Elevated Temp.	Periodic Surveillance and Preventive Maintenance Program	(VII.A3.2-d)	(3.3.1-02)	35, 4
				Cracking due to Elevated Temperature	Periodic Surveillance and Preventive Maintenance Program	(VII.A3.2-d)	(3.3.1-02)	35, 4
				Cracking due to Ultraviolet Radiation and Ozone	Periodic Surveillance and Preventive Maintenance Program	(VII.A3.2-d)	(3.3.1-02)	35, 4

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Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Elastomer/ Indoor - All: Airlock door seals, Penetrations - electrical	Pressure Boundary	Elastomer	Indoor - No Air Conditioning (External)	Change in Mat'l Properties due to Elevated Temp.	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A3.3-a	3.5.1-06	B
				Cracking due to Elevated Temperature	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A3.3-a	3.5.1-06	B
				Cracking due to Ultraviolet Radiation and Ozone	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A3.3-a	3.5.1-06	B
Grout/Indoor - All: Column baseplates; Miscellaneous steel structures	Support NSR Support SR	Grout	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26

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Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
2-296	Structural Carbon Steel Fasteners/Indoor - All: Dome truss; Miscellaneous steel structures; Cast-in place anchor bolts	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B5.1-b	3.5.1-31	A
				Loss of Material due to General Corrosion	Structures Monitoring Program	III.A4.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
	Structural Carbon Steel/Indoor - All: Airlocks and equipment hatches including bolting	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A3.2-a	3.5.1-04	B, 24
				Loss of Material due to Wear	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A3.2-b	3.5.1-05	B

Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Indoor - All: Containment liner & keyway channels	Direct Flow Heat Sink Pipe Whip Restraint Pressure Boundary Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A1.2-a	3.5.1-12	B, 24
					Boric Acid Corrosion Program	II.A1.2-a	3.5.1-12	E, 6, 24
				Loss of Material due to General Corrosion	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A1.2-a	3.5.1-12	B, 24

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Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
2-298 Structural Carbon Steel/Indoor - All: Exposed portions of embedded steel; Framing - Columns, beams, bracing, baseplates, dome truss, and crane supports; Platforms, grating, stairs, ladders, and checkered plates; CRDM missile shield	Direct Flow Heat Sink Missile Barrier Pipe Whip Restraint Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B5.1-b	3.5.1-31	A
				Loss of Material due to General Corrosion	Structures Monitoring Program	III.A4.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
2-299	Structural Carbon Steel/Indoor - All: Penetrations - electrical	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	II.A3.1-a	3.5.1-03	E, 6, 24
				Loss of Material due to General Corrosion	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A3.1-a	3.5.1-03	B, 24
	Structural Carbon Steel/Indoor - All: Penetrations, mechanical, including bolting.	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	II.A3.1-a	3.5.1-03	E, 6, 24
				Loss of Material due to General Corrosion	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A3.1-a	3.5.1-03	B, 24, 32

Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Indoor - All: Post-tensioning tendons	Pressure Boundary Shelter SR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A1.3-a	3.5.1-15	B, 24, 25
Structural Copper Alloy/Indoor - All: Airlock bushings	Fire Barrier Pressure Boundary	Structural Copper Alloy (Zinc<15%)	Indoor - No Air Conditioning (External)	Loss of Material due to Wear	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	II.A3.2-b	3.5.1-05	F, 5
Structural Stainless Steel Fasteners/Indoor - All: Miscellaneous items	Support NSR Support SR	Structural Steel - Stainless	Indoor - No Air Conditioning (External)	None	None Required			J

2-300

Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
2-301 Structural Stainless Steel/Borated Water -All: Refueling cavity liner; Sandbox covers including bolting; Plates, bars, strips, and rods associated with the RC; Fuel Transfer Tube including bolting	Fire Barrier Heat Sink Pressure Boundary Radiation Shielding	Structural Steel - Stainless	Treated Water - Borated, T<140°F (External)	Loss of Material due to Crevice Corrosion	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	III.A5.2-b	3.5.1-23	34, 30, 31
					Water Chemistry Control Program	III.A5.2-b	3.5.1-23	B, 30
				Loss of Material due to MIC	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	III.A5.2-b	3.5.1-23	5, 6, 30, 31
					Water Chemistry Control Program	III.A5.2-b	3.5.1-23	H, 5, 30

Table 3.5.2-1. Structures and Component Supports - Containment Unit 1/2 Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to Pitting Corrosion	ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	III.A5.2-b	3.5.1-23	5, 6, 30, 31
					Water Chemistry Control Program	III.A5.2-b	3.5.1-23	H, 5, 30
Structural Stainless Steel/Indoor - All: Penetrations - electrical	Fire Barrier Pressure Boundary	Structural Steel - Stainless	Indoor - No Air Conditioning (External)	None	None Required			J
Structural Stainless Steel/Indoor - All: Miscellaneous Items, Reactor Cavity Liner	Direct Flow Heat Sink Support SR	Structural Steel - Stainless	Indoor - No Air Conditioning (External)	None	None Required			J
Structural Steel Piles/ Buried - All: Carbon steel H-piles - foundation	Support SR	Carbon Steel Foundation Piles	Buried (External)	None	None Required			J

2-302

Table 3.5.2-2. Structures and Component Supports - Control Building Structure - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - Spread footings	Shelter SR Support NSR Support SR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Walls, ceilings, floors, columns; Equipment pedestals; Spray walls (AFWP Rm)	Fire Barrier Flood Barrier Heat Sink HELB Shielding Missile Barrier Radiation Shielding Shelter SR Support NSR Support SR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Fire Protection Program			26
					Structures Monitoring Program			26

2-303

Table 3.5.2-2. Structures and Component Supports - Control Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/ Outdoor - All: Wall - East	Fire Barrier Flood Barrier Missile Barrier Shelter SR Support SR	Concrete (Reinforced)	Outdoor (External)	None	Fire Protection Program			26
					Structures Monitoring Program			26
Doors/Indoor - All: All doors throughout the building	Fire Barrier Flood Barrier	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Fire Protection Program	(VII.G.2-d)	(3.3.1-20)	H, 28, 29
				Loss of Material due to Wear	Fire Protection Program	(VII.G.2-d)	(3.3.1-20)	B, 28, 29
	HELB Shielding	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A1.2-a	3.5.1-20	B, 29

2-304

Table 3.5.2-2. Structures and Component Supports - Control Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to Wear	Structures Monitoring Program	III.A1.2-a	3.5.1-20	H, 5, 29
Elastomers/ Indoor - All: Rubber flap - DGR louver; Rubber sill, Sweep - Flood doors; Gasket and seals - Control Room doors	Flood Barrier	Elastomer	Indoor - No Air Conditioning (External)	Change in Mat'l Properties due to Elevated Temp.	Fire Protection Program	(VII.F1.1-b)	(3.3.1-02)	E, 4
					Structures Monitoring Program	(VII.F1.1-b)	(3.3.1-02)	35, 4
				Cracking due to Elevated Temperature	Fire Protection Program	(VII.F1.1-b)	(3.3.1-02)	E, 4
					Structures Monitoring Program	(VII.F1.1-b)	(3.3.1-02)	35, 4

2-305

Table 3.5.2-2. Structures and Component Supports - Control Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Cracking due to Ultraviolet Radiation and Ozone	Fire Protection Program	(VII.F1.1-b)	(3.3.1-02)	E, 4
					Structures Monitoring Program	(VII.F1.1-b)	(3.3.1-02)	35, 4
Glass/Indoor - All: Glass windows - Control Room wall (north, south, and east); Glass windows - Computer Rm (east wall)	HELB Shielding Shelter SR	Glass	Indoor - No Air Conditioning (External)	None	None Required			J
Grout/Indoor - All: Miscellaneous steel structures	Support NSR Support SR	Grout	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			2
Masonry Block Wall/Outdoor - All: Diesel Generator Room (DGR) - East wall	Flood Barrier	Block Wall	Outdoor (External)	Cracking due to restraint, shrinkage, etc.	Structures Monitoring Program	III.A1.3-a	3.5.1-24	B

2-306

Table 3.5.2-2. Structures and Component Supports - Control Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Masonry Block Walls/Indoor - All: Battery Room, Non-Vital Switchgear Room (Non-VSR), Control Room - Internal (CR), DGR and AFW Pump (AFWP) Rm tunnel	Fire Barrier	Block Wall	Indoor - No Air Conditioning (External)	Cracking due to restraint, shrinkage, etc.	Fire Protection Program	III.A1.3-a	3.5.1-24	34
					Structures Monitoring Program	III.A1.3-a	3.5.1-24	B
	Flood Barrier Shelter SR	Block Wall	Indoor - No Air Conditioning (External)	Cracking due to restraint, shrinkage, etc.	Structures Monitoring Program	III.A1.3-a	3.5.1-24	B

2-307

Table 3.5.2-2. Structures and Component Supports - Control Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel Fasteners/Indoor - All: Subsoil drain cover; Wall panels and plates, bracing; HELB and flood barriers; Door braces; Platforms, stairs	Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A1.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
Structural Carbon Steel Fasteners/Outdoor - All: Missile shield - DGR; Corner plates - DGR (east wall)	Support NSR Support SR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A1.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

2-308

Table 3.5.2-2. Structures and Component Supports - Control Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Indoor - All: HELB barriers - Cable Spreading Rm (CSR) north and south wall, Non-VSR - South wall and braces, and east wall barriers around cable trays; SW guard pipe - Battery Rm; CST supply guard pipe - 1E Battery Rm (26 EL); Door braces - VSR south and west walls; Wall plates - CSR north and south walls; Wall panels - CR north, south and east walls; Flood	Flood Barrier HELB Shielding Shelter SR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A1.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

2-309

Table 3.5.2-2. Structures and Component Supports - Control Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Outdoor - All: Missile barrier and bracing - DGR air intake	Missile Barrier Support SR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A1.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
Structural Cast Iron/Indoor - All: Floor drain covers and flanges (DGR, Vital Switchgear Room (VSR), AFWP Rm)	Flood Barrier	Structural Cast Iron	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program			J, 5
Wood/Outdoor - All: Missile shield - integral part of Diesel Generator air intake	Missile Barrier	Wood	Outdoor (External)	Change in Mat'l Properties due to Rot and Mildew	Structures Monitoring Program			J, 5
				Loss of Material due to Rot and Mildew	Structures Monitoring Program			J, 5

Table 3.5.2-3. Structures and Component Supports - Circulating Water Pumphouse Structure - Summary of Aging

2-310

Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - basemat	Shelter SR Support SR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Floors; Missile barrier; Non-combustible wall (SW Pumps)	Fire Barrier	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
		Fiber Reinforced Cement	Indoor - No Air Conditioning (External)	None	Fire Protection Program			26
	Flood Barrier Missile Barrier Shelter SR Support SR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26

2-311

Table 3.5.2-3. Structures and Component Supports - Circulating Water Pumphouse Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/ Outdoor - All: Walls, roof	Fire Barrier Flood Barrier Missile Barrier Shelter SR Support SR	Concrete (Reinforced)	Outdoor (External)	None	Structures Monitoring Program			26
Concrete/Raw Water - All: Forebay structure and pump bays	Flood Barrier Shelter SR Support SR Water Source	Concrete (Reinforced)	Raw Water (Submerged) (External)	Loss of Material due to Abrasion/ Cavitation	Structures Monitoring Program	III.A6.1-h	3.5.1-22	E, 6
Doors/Indoor - All: All doors throughout the building	Fire Barrier	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Fire Protection Program	(VII.G.1-d)	(3.3.1-20)	H, 29
				Loss of Material due to Wear	Fire Protection Program	(VII.G.1-d)	(3.3.1-20)	B, 29

2-312

Table 3.5.2-3. Structures and Component Supports - Circulating Water Pumphouse Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Grout/Indoor - All: Column baseplates	Support SR	Grout	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Structural Carbon Steel Fasteners/Indoor - All: Structural steel framing	Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A6.2-a	3.5.1-22	E, 6, 24
Structural Carbon Steel/Indoor - All: Framing - Columns, beams	Missile Barrier Shelter SR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A6.2-a	3.5.1-22	E, 6, 24

2-313

Table 3.5.2-4. Structures and Component Supports - Diesel Generator Building Structure - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - Footings and basemat	Shelter SR Support NSR Support SR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Walls, floors and ceilings	Fire Barrier Missile Barrier Shelter SR Support NSR Support SR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Fire Protection Program			26
					Structures Monitoring Program			26

2-314

Table 3.5.2-4. Structures and Component Supports - Diesel Generator Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/ Outdoor - All: Walls, roof	Fire Barrier Missile Barrier Shelter SR Support NSR Support SR	Concrete (Reinforced)	Outdoor (External)	None	Fire Protection Program			26
					Structures Monitoring Program			26
Doors/Outdoor - All: All doors throughout the building	Fire Barrier Support NSR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Fire Protection Program	(VII.G.4-d)	(3.3.1-20)	H, 29
				Loss of Material due to Wear	Fire Protection Program	(VII.G.4-d)	(3.3.1-20)	B, 29
Doors/Indoor - All: All doors throughout the building	Fire Barrier	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Fire Protection Program	(VII.G.4-d)	(3.3.1-20)	H, 29
				Loss of Material due to Wear	Fire Protection Program	(VII.G.4-d)	(3.3.1-20)	B, 29

Table 3.5.2-4. Structures and Component Supports - Diesel Generator Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Grout/Indoor - All: Platforms, stairs	Support NSR Support SR	Grout	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Structural Carbon Steel Fasteners/Indoor - All: Platforms, stairs; Missile shields	Support NSR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
Structural Carbon Steel Fasteners/Outdoor - All: Missile shields	Support NSR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
Structural Carbon Steel/Indoor - All: Framing - Crane rails supports; Platforms, stairs	Support NSR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

Table 3.5.2-4. Structures and Component Supports - Diesel Generator Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Outdoor - All: Missile shields; Wall plates at missile shields	Missile Barrier Support NSR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

Table 3.5.2-5. Structures and Component Supports - Facade Unit 1/2 Structure - Summary of Aging Management Evaluation

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - Spread footings	Support NSR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Floor	Support NSR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Concrete/ Outdoor - All: Retaining walls	Support NSR	Concrete (Reinforced)	Outdoor (External)	None	Structures Monitoring Program			26
Grout/Indoor - All: Column baseplates	Support NSR	Grout	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Masonry Block Wall/Indoor - All: Elevators and stairs towers	Support NSR	Block Wall	Indoor - No Air Conditioning (External)	Cracking due to restraint, shrinkage, etc.	Structures Monitoring Program	III.A3.3-a	3.5.1-24	B
Structural Carbon Steel Fasteners/Indoor - All: Structural steel framing; Steel framing for elevator and stair towers	Support NSR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

Table 3.5.2-5. Structures and Component Supports - Facade Unit 1/2 Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Indoor - All: Framing - Columns, beams; Roof truss	Support NSR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

Table 3.5.2-6. Structures and Component Supports - Primary Auxiliary Building Structure - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Boraflex/Borate d Water - All: Spent fuel storage racks	Maintain Subcriticality	Boraflex	Treated Water - Borated, T<140°F (External)	Red. of Neutron-Absorb. Cap./Boraflex Degrad.	Boraflex Monitoring Program	(VII.A2.1-a)	(3.3.1-12)	B
Concrete/Buried - All: Foundation - Basemat	Shelter SR Support NSR Support SR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Walls, ceilings, floors; Spent fuel pool	Fire Barrier Flood Barrier Missile Barrier Shelter SR Support NSR Support SR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Fire Protection Program			26
					Structures Monitoring Program			26

2-320

Table 3.5.2-6. Structures and Component Supports - Primary Auxiliary Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/ Outdoor - All: Walls	Fire Barrier Missile Barrier Shelter SR Support NSR Support SR	Concrete (Reinforced)	Outdoor (External)	None	Fire Protection Program			26
					Structures Monitoring Program			26
Doors/Indoor - All: All doors throughout the building	Fire Barrier Flood Barrier	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Fire Protection Program	(VII.G.3-d)	(3.3.1-20)	H, 29
				Loss of Material due to Wear	Fire Protection Program	(VII.G.3-d)	(3.3.1-20)	B, 29
	HELB Shielding	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a	3.5.1-20	B, 29
				Loss of Material due to Wear	Structures Monitoring Program	III.A3.2-a	3.5.1-20	H, 5, 29

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Table 3.5.2-6. Structures and Component Supports - Primary Auxiliary Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Elastomer/ Borated Water - All: SFP gates	Pressure Boundary	Elastomer	Treated Water - Borated, T<140°F (External)	Change in Mat'l Properties due to Elevated Temp.	Periodic Surveillance and Preventive Maintenance Program	(VII.A3.2-d)	(3.3.1-02)	35, 4
				Cracking due to Elevated Temperature	Periodic Surveillance and Preventive Maintenance Program	(VII.A3.2-d)	(3.3.1-02)	35, 4
				Cracking due to Ultraviolet Radiation and Ozone	Periodic Surveillance and Preventive Maintenance Program	(VII.A3.2-d)	(3.3.1-02)	35, 4
Elastomers/ Indoor - All: Rubber sill, Sweep - Flood doors	Flood Barrier	Elastomer	Indoor - No Air Conditioning (External)	Change in Mat'l Properties due to Elevated Temp.	Fire Protection Program	(VII.F1.1-b)	(3.3.1-02)	E, 4

2-322

Table 3.5.2-6. Structures and Component Supports - Primary Auxiliary Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Structures Monitoring Program	(VII.F1.1-b)	(3.3.1-02)	35, 4
				Cracking due to Elevated Temperature	Fire Protection Program	(VII.F1.1-b)	(3.3.1-02)	E, 4
					Structures Monitoring Program	(VII.F1.1-b)	(3.3.1-02)	35, 4
				Cracking due to Ultraviolet Radiation and Ozone	Fire Protection Program	(VII.F1.1-b)	(3.3.1-02)	E, 4
					Structures Monitoring Program	(VII.F1.1-b)	(3.3.1-02)	35, 4
Grout/Indoor - All: Columns baseplates; Miscellaneous steel structures	Support NSR Support SR	Grout	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Masonry Block Wall/Indoor - All: Block walls (8', 26', 46' EL)	Fire Barrier	Block Wall	Indoor - No Air Conditioning (External)	Cracking due to restraint, shrinkage, etc.	Fire Protection Program	III.A3.3-a	3.5.1-24	34

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Table 3.5.2-6. Structures and Component Supports - Primary Auxiliary Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
					Structures Monitoring Program	III.A3.3-a	3.5.1-24	B
	Shelter SR	Block Wall	Indoor - No Air Conditioning (External)	Cracking due to restraint, shrinkage, etc.	Structures Monitoring Program	III.A3.3-a	3.5.1-24	B
Structural Carbon Steel Fasteners/Indoor - All: Structural steel framing	Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B5.1-b	3.5.1-31	G, 5
				Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
Structural Carbon Steel Piles/Buried - All: Spent fuel pool	Support SR	Carbon Steel Foundation Piles	Buried (External)	None	None Required			J

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Table 3.5.2-6. Structures and Component Supports - Primary Auxiliary Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Indoor -All: Crane support girders; Framing - Columns, beams; Roof truss; Platforms, stairs	Direct Flow Shelter SR Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B5.1-b	3.5.1-31	G, 5
				Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
Structural Stainless Steel/Borated Water - All: Spent fuel pool; SFP canal; SFP gates	Pressure Boundary	Structural Steel - Stainless	Treated Water - Borated, T<140°F (External)	Loss of Material due to Crevice Corrosion	Water Chemistry Control Program	III.A5.2-b	3.5.1-23	B
				Loss of Material due to MIC	Water Chemistry Control Program	III.A5.2-b	3.5.1-23	H, 5

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Table 3.5.2-6. Structures and Component Supports - Primary Auxiliary Building Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to Pitting Corrosion	Water Chemistry Control Program	III.A5.2-b	3.5.1-23	H, 5
Structural Stainless Steel/Borated Water - All: Spent fuel storage racks	Support SR	Structural Steel - Stainless	Treated Water - Borated, T<140°F (External)	Loss of Material due to Crevice Corrosion	Water Chemistry Control Program	(VII.A2.1-c)	(3.3.1-13)	H, 5
				Loss of Material due to MIC	Water Chemistry Control Program	(VII.A2.1-c)	(3.3.1-13)	H, 5
				Loss of Material due to Pitting Corrosion	Water Chemistry Control Program	(VII.A2.1-c)	(3.3.1-13)	H, 5
Structural Stainless Steel/Indoor - All: New fuel storage racks	Support NSR	Structural Steel - Stainless	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.5.2-7. Structures and Component Supports - Turbine Building Unit 1/2 Structure - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - Spread footings and basemat; Floor	Support NSR Support SR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Floors and walls (north, 8', 26' EL); Turbine Generator LO reservoir area curbing; LO storage tank area walls	Fire Barrier Support NSR Support SR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Concrete/ Outdoor - All: Foundation Walls	Support NSR Support SR	Concrete (Reinforced)	Outdoor (External)	None	Structures Monitoring Program			26
Grout/Indoor - All: Column baseplates	Support NSR Support SR	Grout	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26

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Table 3.5.2-7.

Structures and Component Supports - Turbine Building Unit 1/2 Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Masonry Block Walls/Indoor - All: LO storage room walls (Unit 2 only)	Fire Barrier	Block Wall	Indoor - No Air Conditioning (External)	Cracking due to restraint, shrinkage, etc.	Structures Monitoring Program	III.A3.3-a	3.5.1-24	B
Structural Carbon Steel Fasteners/Indoor - All: Structural steel framing; HELB barriers; Flood louvers; Rollup door braces	Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

Table 3.5.2-7.

Structures and Component Supports - Turbine Building Unit 1/2 Structure - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Indoor - All: Flood louvers - East wall; Door bracing - East wall; HELB barrier - North wall; Crane rails supports; Framing - columns, beams; Roof truss	Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24

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Table 3.5.2-8. Structures and Component Supports - Yard Structures - Summary of Aging Management Evaluation

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Electrical Duct Banks; Equipment foundations and support pads; Manholes	Shelter SR Support NSR Support SR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Manhole interior	Shelter SR Support NSR Support SR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Concrete/ Outdoor - All: Equipment foundations and support pads; Manholes and covers	Fire Barrier Shelter SR Support NSR Support SR	Concrete (Reinforced)	Outdoor (External)	None	Structures Monitoring Program			26
Earthen Berm/ Outdoor - All: Berm Around FO Storage Tanks	Fire Barrier	Earth	Outdoor (External)	Loss of Material due to surface Runoff and Erosion	Structures Monitoring Program	III.A6.4-a	3.5.1-22	E, 6

Table 3.5.2-8. Structures and Component Supports - Yard Structures - Summary of Aging Management Evaluation (contd)

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Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel Fasteners/ Outdoor - All: Switchyard equipment frames	Support NSR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
Structural Carbon Steel/Outdoor - All: Manhole covers; Framing - 345K VAC distribution system; Bus ducts - HVSATs to circuit breaker cabinets; Bus ducts - LVSATs to 13.8K VAC switchgear cabinet	Support NSR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.A3.2-a, III.B5.1-a	3.5.1-20, 3.5.1-29	B, 24
Structural Cast Iron/Outdoor - All: Manhole frames and covers	Fire Barrier Shelter SR Support NSR	Structural Cast Iron	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program			J, 5

Table 3.5.2-8. Structures and Component Supports - Yard Structures - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to Selective Leaching	Structures Monitoring Program			J, 5

Table 3.5.2-9. Structures and Component Supports - Cranes, Hoists, and Lifting Devices - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel Fasteners/Indoor - All: Rail hardware	Support NSR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	(VII.B.1-b)	(3.3.1-16)	B
Structural Carbon Steel/Indoor - All: Bridge and trolley framing; Crane rails, monorails; Lifting rigs	Support NSR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	(VII.B.1-b)	(3.3.1-16)	E, 6, 33
				Loss of Material due to Wear	Structures Monitoring Program	(VII.B.2-a)	(3.3.1-16)	B
Structural Stainless Steel/Borated Water - All: RV internals lifting rig	Support NSR	Structural Steel - Stainless	Treated Water - Borated, T<140°F (External)	Loss of Material due to Crevice Corrosion	Structures Monitoring Program	(VII.B.1-b)	(3.3.1-16)	F, G, 5
				Loss of Material due to MIC	Structures Monitoring Program	(VII.B.1-b)	(3.3.1-16)	F, G, 5
				Loss of Material due to Pitting Corrosion	Structures Monitoring Program	(VII.B.1-b)	(3.3.1-16)	F, G, 5

Table 3.5.2-10. Structures and Component Supports - Component Supports Commodity Group - Summary of Aging

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Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Elastomer/ Indoor - All: Equipment mount vibration isolators	Support NSR Support SR	Elastomer	Indoor - No Air Conditioning (External)	Change in Mat'l Properties due to Elevated Temp.	Structures Monitoring Program	III.B4.2-a	3.5.1-29	B
				Cracking due to Elevated Temperature	Structures Monitoring Program	III.B4.2-a	3.5.1-29	B
				Cracking due to Ultraviolet Radiation and Ozone	Structures Monitoring Program	III.B4.2-a	3.5.1-29	B
Grout/Indoor - All: Equipment and supports baseplates	Support NSR Support SR	Grout	Indoor - No Air Conditioning (External)	Cracking due to Service Induced Loadings	Structures Monitoring Program	III.B1.1.4-a, III.B1.2.3-a, III.B2.2-a, III.B3.2-a, III.B4.3-a	3.5.1-29	B
Grout/Outdoor - All: Equipment and supports baseplates	Support NSR	Grout	Outdoor (External)	Cracking due to Service Induced Loadings	Structures Monitoring Program	III.B2.2-a, III.B3.2-a, III.B4.3-a	3.5.1-29	B

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Table 3.5.2-10. Structures and Component Supports - Component Supports Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
High Strength Structural Carbon Steel Fasteners/Indoor - All: High strength structural fasteners - RCS component supports	Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B1.1.1-b, III.B1.2.1-b	3.5.1-31	A
				Loss of Material due to General Corrosion	ASME Section XI, Subsection IWF Inservice Inspection Program	III.B1.1.1-a	3.5.1-32	B
Structural Carbon Steel Fasteners/Indoor - All: ASME equipment; ASME pipe supports and restraints	Support NSR Pipe Whip Restraint	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B1.1.1-b, III.B1.2.1-b	3.5.1-31	A

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Table 3.5.2-10. Structures and Component Supports - Component Supports Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to General Corrosion	Structures Monitoring Program	III.B1.1.1-a, III.B1.2.1-a	3.5.1-32	E, 27
	Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B1.1.1-b, III.B1.2.1-b	3.5.1-31	A
				Loss of Material due to General Corrosion	ASME Section XI, Subsection IWF Inservice Inspection Program	III.B1.1.1-a, III.B1.1.3-a, III.B1.2.1-a, III.B1.2.2-a	3.5.1-32	B
					Structures Monitoring Program	III.B1.1.1-a, III.B1.2.1-a	3.5.1-32	E, 27

Table 3.5.2-10. Structures and Component Supports - Component Supports Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel Fasteners/Indoor - All: Equipment supports - Pipe restraints, mechanical equipment, HVAC ducts, panels and cabinets; Raceways; Miscellaneous steel structures	Pipe Whip Restraint Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B2.1-b, III.B3.1-b, III.B4.1-b	3.5.1-31	A
				Loss of Material due to General Corrosion	Structures Monitoring Program	III.B2.1-a, III.B3.1-a, III.B4.1-a	3.5.1-29	B
Structural Carbon Steel Fasteners/ Outdoor - All: G01/02 exhaust stack, Equipment supports - Yard	Support NSR Support SR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.B2.1-a, III.B3.1-a, III.B4.1-a	3.5.1-29	B

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Table 3.5.2-10. Structures and Component Supports - Component Supports Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Indoor - All: ASME pipe supports and restraints; ASME equipment supports	Support NSR Pipe Whip Restraint	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B1.1.1-b, III.B1.2.1-b	3.5.1-31	A
				Loss of Material due to General Corrosion	Structures Monitoring Program	III.B1.1.1-a, III.B1.2.1-a	3.5.1-32	E, 27
	Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B1.1.1-b, III.B1.2.1-b	3.5.1-31	A
				Loss of Material due to General Corrosion	ASME Section XI, Subsection IWF Inservice Inspection Program	III.B1.1.1-a, III.B1.1.3-a, III.B1.2.1-a, III.B1.2.2-a	3.5.1-32	B
					Structures Monitoring Program	III.B1.1.1-a, III.B1.2.1-a	3.5.1-32	E, 27

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Table 3.5.2-10. Structures and Component Supports - Component Supports Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Indoor - All: Framing - Structural shapes; Non-ASME pipe supports and restraints; Non-ASME equipment supports; HVAC duct supports; Raceways - Cable trays, metallic conduit, wireways; Electrical Enclosures - Panels, boxes, cabinets, consoles	Pipe Whip Restraint Support NSR Support SR	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to Boric Acid Wastage	Boric Acid Corrosion Program	III.B2.1-b, III.B3.1-b, III.B4.1-b	3.5.1-31	A
				Loss of Material due to General Corrosion	Structures Monitoring Program	III.B2.1-a, III.B3.1-a, III.B4.1-a	3.5.1-29	B

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Table 3.5.2-10. Structures and Component Supports - Component Supports Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Structural Carbon Steel/Outdoor - All: G01/02 exhaust stack, Equipment supports - Yard	Support NSR Support SR	Structural Steel - Carbon	Outdoor (External)	Loss of Material due to General Corrosion	Structures Monitoring Program	III.B2.1-a, III.B3.1-a, III.B4.1-a	3.5.1-29	B
Structural Stainless Steel Fasteners/Indoor - All: Equipment/component attachments (primarily NSSS)	Support NSR Support SR	Structural Steel - Stainless	Indoor - No Air Conditioning (External)	None	None Required			J
Structural Stainless Steel/Indoor - All: Structural plates (primarily NSSS piping)	Support NSR Support SR	Structural Steel - Stainless	Indoor - No Air Conditioning (External)	None	None Required			J

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Table 3.5.2-11. Structures and Component Supports - Fire Barrier Commodity Group - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Calcium Silicate Board/Indoor - All: Cable trays - Fire stop; Penetration seals	Fire Barrier	Calcium Silicate Board	Indoor - No Air Conditioning (External)	Cracking/ Delamination due to Movement	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Cracking/ Delamination due to Shrinkage	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Cracking/ Delamination due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Loss of Material due to Abrasion	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Separation due to Movement	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5

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Table 3.5.2-11. Structures and Component Supports - Fire Barrier Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Separation due to Shrinkage	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Separation due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
Ceramic Fiber/Indoor - All: Cable trays - Fire stop; Penetration seals	Fire Barrier	Ceramic Fiber	Indoor - No Air Conditioning (External)	Cracking/ Delamination due to Movement	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Cracking/ Delamination due to Shrinkage	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Cracking/ Delamination due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5

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Table 3.5.2-11. Structures and Component Supports - Fire Barrier Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Loss of Material due to Abrasion	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Loss of Material due to Flaking	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Separation due to Movement	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Separation due to Shrinkage	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
Ceramic Fiber/Indoor - All: Cable trays - Fire stop; Penetration seals	Fire Barrier	Ceramic Fiber	Indoor - No Air Conditioning (External)	Separation due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5

Table 3.5.2-11. Structures and Component Supports - Fire Barrier Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Ceramic Fiber-Board/ Indoor - All: Penetration seals	Fire Barrier	Ceramic Fiber Board	Indoor - No Air Conditioning (External)	Cracking/ Delamination due to Movement	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Cracking/ Delamination due to Shrinkage	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Cracking/ Delamination due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Loss of Material due to Abrasion	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Separation due to Movement	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
Ceramic Fiber-Board/ Indoor - All: Penetration seals	Fire Barrier	Ceramic Fiber Board	Indoor - No Air Conditioning (External)	Separation due to Shrinkage	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5

Table 3.5.2-11. Structures and Component Supports - Fire Barrier Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Separation due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
Ceramic Fiber-Mat/Indoor - All: Cable trays - Fire stop	Fire Barrier	Ceramic Fiber Mat	Indoor - No Air Conditioning (External)	Cracking/ Delamination due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Loss of Material due to Abrasion	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Loss of Material due to Flaking	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
Silicone Based Material/Indoor - All: Sprayed on mastic; Cable trays - Fire stop; Penetration seals; structural fireproofing	Fire Barrier	Silicone Based Materials	Indoor - No Air Conditioning (External)	Cracking/ Delamination due to Movement	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5

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Table 3.5.2-11. Structures and Component Supports - Fire Barrier Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
				Cracking/ Delamination due to Shrinkage	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Cracking/ Delamination due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Increased Hardness and Shrinkage due to Weathering	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	B
				Loss of Material due to Abrasion	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Separation due to Movement	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
				Separation due to Shrinkage	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5

Table 3.5.2-11. Structures and Component Supports - Fire Barrier Commodity Group - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Silicone Based Material/Indoor - All: Sprayed on mastic; Cable trays - Fire stop; Penetration seals; structural fireproofing	Fire Barrier	Silicone Based Materials	Indoor - No Air Conditioning (External)	Separation due to Vibration	Fire Protection Program	(VII.G.1-a, VII.G.2-a, VII.G.3-a, VII.G.4-a)	(3.3.1-20)	H, 5
Stainless Steel Appurtenances/ Indoor - All: Tape, banding, banding seals, and wire for fire wraps and penetration seals	Fire Barrier	Stainless Steel	Indoor - No Air Conditioning (External)	None	None Required			J
Structural Carbon Steel/Indoor - All: Fire damper frames; Cable tray covers	Fire Barrier	Structural Steel - Carbon	Indoor - No Air Conditioning (External)	Loss of Material due to General Corrosion	Fire Protection Program	III.A3.2-a	(3.3.1-20)	E, 6

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Table 3.5.2-12. Structures and Component Supports - 13.8 KV Switchgear Building Structure - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - Spread footing and basemat	Support NSR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Floor (integral with basemat)	Support NSR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Concrete/ Outdoor - All: Foundation - Spread footing and basemat	Support NSR	Concrete (Reinforced)	Outdoor (External)	None	Structures Monitoring Program			26

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Table 3.5.2-13. Structures and Component Supports - Fuel Oil Pumphouse Structure - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - Basemat; Walls	Support NSR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Ceiling (25'-6" EL)	Support NSR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Concrete/ Outdoor - All: Foundation - Basemat	Support NSR	Concrete (Reinforced)	Outdoor (External)	None	Structures Monitoring Program			26

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Table 3.5.2-14. Structures and Component Supports - Gas Turbine Building Structure - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Concrete/Buried - All: Foundation - Basemat	Support NSR	Concrete (Reinforced)	Buried (External)	None	Structures Monitoring Program			26
Concrete/Indoor - All: Floor; Equipment pedestals	Support NSR	Concrete (Reinforced)	Indoor - No Air Conditioning (External)	None	Structures Monitoring Program			26
Concrete/ Outdoor - All: Foundation - Basemat	Support NSR	Concrete (Reinforced)	Outdoor (External)	None	Structures Monitoring Program			26

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Table 3.6.2-1. Electrical Components - Electrical Commodity Groups - Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Electrical cables and connections subject to 10 CFR 50.49 EQ requirements (125VDC, 480VAC, Reactor Protection, ESF Actuation, Nuclear Instrumentation, and Radiation Monitoring Systems)	Deliver Voltage, Current, or Signal Electrically Isolate and Support	Insulation Materials - Various Organic Polymers	Containment (External) Indoor - Air Conditioning (External) Indoor - No Air Conditioning (External)	Reduced Insulation Resistance (IR), Electrical Failure	Environmental Qualification Program	VI.B.1-a	3.6.1-01	A
Electrical cables and connections not subject to 10 CFR 50.49 EQ requirements (All Electrical Power and I&C Systems)	Deliver Voltage, Current, or Signal	Insulation Materials - Various Organic Polymers	Containment (External) Indoor - Air Conditioning (External) Indoor - No Air Conditioning (External) Outdoor (External)	Reduced Insulation Resistance (IR), Electrical Failure	Cable Condition Monitoring Program	VI.A.1-a	3.6.1-02	B

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Table 3.6.2-1. Electrical Components - Electrical Commodity Groups - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Electrical cables and connections used in instrumentation circuits not subject to 10 CFR 50.49 EQ requirements that are sensitive to reduction in conductor insulation (Nuclear Instrumentation and Radiation Monitoring Systems)	Deliver Voltage, Current, or Signal	Insulation Materials - Various Organic Polymers	Containment (External) Indoor - Air Conditioning (External) Indoor - No Air Conditioning (External)	Reduced Insulation Resistance (IR), Electrical Failure	Cable Condition Monitoring Program	VI.A.1-b	3.6.1-03	B
Electrical connections not subject to 10 CFR 50.49 EQ requirements that are exposed to borated water leakage (Some Electrical and I&C Systems)	Deliver Voltage, Current, or Signal	Connections and Connector Pins - Various Metals	Borated Water Leaks (External)	Connector Failure	Boric Acid Corrosion Program	VI.A.2-a	3.6.1-05	A

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Table 3.6.2-1. Electrical Components - Electrical Commodity Groups - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
			Containment (External) Indoor - No Air Conditioning (External)	None	None Required			J
Electrical penetration assemblies (Electrical Power Systems 4160 VAC or less, and all I&C Systems)	Deliver Voltage, Current, or Signal	Insulation Materials	Containment (External) Indoor - No Air Conditioning (External)	Reduced Insulation Resistance (IR), Electrical Failure	Cable Condition Monitoring Program	VI.A.1-a	3.6.1-02	B
					Environmental Qualification Program	VI.B.1-a	3.6.1-01	A
High-voltage insulators (Offsite Power System)	Electrically Isolate and Support	Porcelain Metal Cement	Outdoor (External)	None	None Required			J

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Table 3.6.2-1. Electrical Components - Electrical Commodity Groups - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Inaccessible medium-voltage (2K VAC to 15K VAC) cables and connections (e.g., installed in conduit or direct buried) not subject to 10 CFR 50.49 EQ requirements (4160 VAC and 13.8K VAC Power Systems)	Deliver Voltage, Current, or Signal	Insulation Materials - Various Organic Polymers	Indoor - No Air Conditioning (External) Raw Water (Submerged) (External) Indoor - Air Conditioning (External) Outdoor (External)	Formation of Water Trees, Localized Damage	Cable Condition Monitoring Program	VI.A.1-c	3.6.1-04	B
Phase bus (480 VAC, 4160 VAC, and 13.8K VAC Power Systems)	Deliver Voltage, Current, or Signal	Copper	Indoor - No Air Conditioning (External) Indoor - Air Conditioning (External)	None	None Required			J
	Electrically Isolate and Support	Fiberglass Bronze Noryl Stainless Steel Porcelain Silicone Steel Aluminum	Indoor - No Air Conditioning (External) Indoor - Air Conditioning (External)	None	None Required			J

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Table 3.6.2-1. Electrical Components - Electrical Commodity Groups - Summary of Aging Management Evaluation (contd)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes
Switchyard buses and connections (Offsite Power System)	Deliver Voltage, Current, or Signal	Aluminum Galvanized Metal Stainless Steel	Outdoor (External)	Water Ingress Expansion Cracking	Cable Condition Monitoring Program			B
Transmission conductors (Offsite Power System)	Deliver Voltage, Current, or Signal	Aluminum Steel	Outdoor (External)	None	None Required			J

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