

**TABLE 3.3.2-1 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR WATER CLEANUP (RWCU) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Lines to Reactor Water Cleanup (RWC) and Standby Liquid Control (SLC) Systems)	M-1	Carbon Steel	Indoor Air (External)	None	None			G, 326
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			F
				Loss of Material due to FAC	Flow-Accelerated Corrosion	IV.C1.1-a	3.1.1-25	D
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-h	3.1.1-01	
		Stainless Steel	Indoor Air (External)	None	None			G, 325
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			H, 314
				Cracking due to SCC	Water Chemistry and BWR Stress Corrosion Cracking	IV.C1.1-f	3.1.1-29	B
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-h	3.1.1-01	

**TABLE 3.3.2-1 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR WATER CLEANUP (RWCU) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Small Bore Piping Less than NPS 4)	M-1	Carbon Steel	Indoor Air (External)	None	None			G, 326
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			H
				Loss of Material due to FAC	Flow-Accelerated Corrosion	IV.C1.1-a	3.1.1-25	D
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-h	3.1.1-01	
				Cracking due to Thermal and Mechanical Loading	Section XI Inservice Inspection and Water Chemistry	IV.C1.1-i	3.1.1-07	I, 348

**TABLE 3.3.2-1 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR WATER CLEANUP (RWCU) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Small Bore Piping Less than NPS 4) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			G, 325
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			H, 314
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-h	3.1.1-01	
				Cracking due to SCC	Section XI Inservice Inspection and Water Chemistry	IV.C1.1-i	3.1.1-07	E, 348
				Cracking due to Thermal and Mechanical Loading	Section XI Inservice Inspection and Water Chemistry	IV.C1.1-i	3.1.1-07	I, 348

**TABLE 3.3.2-1 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR WATER CLEANUP (RWCU) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body)	M-1	Carbon Steel	Indoor Air (External)	None	None			G, 326
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			H
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.3-d	3.1.1-01	
				Stainless Steel	Indoor Air (External)	None	None	
		Stainless Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			H, 314
				Cracking due to SCC	Water Chemistry and BWR Stress Corrosion Cracking	IV.C1.3-c	3.1.1-29	B
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.3-d	3.1.1-01	

**TABLE 3.3.2-1 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR WATER CLEANUP (RWCU) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings (Beyond Second Isolation Valves))	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			F
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VII.E3.1-b	3.3.1-03	
		Stainless Steel	Indoor Air (External)	None	None			G, 325
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			H, 314
	Cracking due to SCC	Section XI Inservice Inspection and Water Chemistry		VII.E3.1-a	3.3.1-26	E, 328		
	Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VII.E3.1-b	3.3.1-03				
	M-4	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			F
				Cracking due to	TLAA, evaluated in	VII.E3.1-b	3.3.1-03	

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
				Thermal Fatigue	accordance with 10 CFR 54.21(c)			

**TABLE 3.3.2-1 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR WATER CLEANUP (RWCU) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Regenerative Heat Exchanger (Shell and Access Cover)	M-4	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			F
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VII.E3.1-b	3.3.1-03	
Reactor Water Cleanup System (BWR) (Valves (Beyond Second Isolation Valves))	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VII.E3.1-b	3.3.1-03	
		Stainless Steel	Indoor Air (External)	None	None			J, 325
		Stainless Steel	Treated Water (Includes Steam) (Internal)	Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VII.E3.1-b	3.3.1-03	

**TABLE 3.3.2-1 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR WATER CLEANUP (RWCU) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Reactor Water Cleanup System (BWR) (Valves (Beyond Second Isolation Valves)) (continued)	M-4	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
			Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VII.E3.1-b	3.3.1-03		
Reactor Water Cleanup System (BWR) (Tanks, Pumps, and Piping Specialties (Beyond Second Isolation Valves))	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
			Glass	Indoor Air (External)	None	None		
		Stainless Steel	Treated Water (Internal)	None	None			J, 329
			Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
			Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10	VII.E3.1-b	3.3.1-03		



Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
					CFR 54.21(c)			

**TABLE 3.3.2-1 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR WATER CLEANUP (RWCU) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Reactor Water Cleanup System (BWR) (Tanks, Pumps, and Piping Specialties (Beyond Second Isolation Valves)) (continued)	M-3	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
			Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VII.E3.1-b	3.3.1-03		
	M-4	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
			Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VII.E3.1-b	3.3.1-03		
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E

**TABLE 3.3.2-2 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Reactor Core Isolation Cooling (RCIC) System)	M-1	Carbon Steel	Indoor Air (External)	None	None			J, 331
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			J
				Loss of Material due to FAC	Flow-Accelerated Corrosion	IV.C1.1-a	3.1.1-25	D
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-e	3.1.1-01	
		Stainless Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			J
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-e	3.1.1-01	
				Cracking due to SCC	Water Chemistry and BWR Stress Corrosion Cracking	IV.C1.1-f	3.1.1-29	D

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Reactor Core Isolation Cooling (RCIC) System) (continued)	M-3	Stainless Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			J
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-e	3.1.1-01	
				Cracking due to SCC	Water Chemistry and BWR Stress Corrosion Cracking	IV.C1.1-f	3.1.1-29	D
Piping and Fittings (Steam Line to HPCI and RCIC Pump Turbine)	M-1	Carbon Steel	Indoor Air (External)	None	None			J, 331
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			J
			Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-e	3.1.1-01		

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Small Bore Piping Less than NPS 4)	M-1	Carbon Steel	Indoor Air (External)	None	None			J, 331
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			H
			Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-h	3.1.1-01		
			Cracking due to Thermal and Mechanical Loading	Section XI Inservice Inspection and Water Chemistry	IV.C1.1-i	3.1.1-07	I, 348	
		Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			H
			Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-h	3.1.1-01		
			Cracking due to SCC	Section XI Inservice Inspection and Water Chemistry	IV.C1.1-i	3.1.1-07	E, 348	
			Cracking due to Thermal and Mechanical Loading	Section XI Inservice Inspection and Water Chemistry	IV.C1.1-i	3.1.1-07	I, 348	

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body)	M-1	Carbon Steel	Indoor Air (External)	None	None			J, 331
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			J
				Loss of Material due to FAC	Flow-Accelerated Corrosion	IV.C1.3-a	3.1.1-25	B
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.3-d	3.1.1-01	
			Stainless Steel	Indoor Air (External)	None	None		
		Treated Water (Includes Steam) (Internal)		Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Section XI Inservice Inspection and Water Chemistry			J
				Cracking due to SCC	Water Chemistry and BWR Stress Corrosion Cracking	IV.C1.3-c	3.1.1-29	B
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.3-d	3.1.1-01	

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Reactor Core Isolation Cooling (RCIC))	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.1-a	3.2.1-02 3.2.1-04	B
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01	
				Loss of Material due to FAC	Flow-Accelerated Corrosion	V.D2.1-f	3.2.1-14	D
		Stainless Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			F
				Cracking due to SCC	Water Chemistry and BWR Stress Corrosion Cracking	V.D2.1-c	3.2.1-16	B
Piping and Fittings (Lines to Suppression Chamber (SC))	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.1-a	3.2.1-02 3.2.1-04	B
Piping and Fittings (Lines to HPCI and RCIC Pump Turbine)	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01	

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Lines from HPCI and RCIC Pump Turbines to Torus or Wetwell)	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			H
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01	
				Loss of Material due to FAC	Flow-Accelerated Corrosion	V.D2.1-f	3.2.1-14	B
Piping and Fittings (Piping specialties)	M-1	Carbon Steel	Indoor Air (External)	None	None			J, 331
			Lube Oil (Internal)	None	None			J, 334
			Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.1-a	3.2.1-02 3.2.1-04	D
			Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01		



**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Piping specialties) (continued)	M-1	Glass	Indoor Air (External)	None	None			J, 319
			Lube Oil (Internal)	None	None			J, 334
			Treated Water (Internal)	None	None			J, 329
		Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
	M-6	Insulation	Indoor Air (External)	None	None			J, 335
Piping and Fittings (Misc. auxiliary and drain piping and valves)	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.1-a	3.2.1-02 3.2.1-04	D
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01	
				Loss of Material due to FAC	Flow-Accelerated Corrosion	V.D2.1-f	3.2.1-14	D

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Misc. auxiliary and drain piping and valves) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection		J	
	M-4	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.1-a	3.2.1-02 3.2.1-04	D
Piping and Fittings (restrictive orifices / flow elements)	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.1-a	3.2.1-02 3.2.1-04	D
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01	
				Loss of Material due to FAC	Flow-Accelerated Corrosion	V.D2.1-f	3.2.1-14	D

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (restrictive orifices / flow elements) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Lube Oil (Internal)	None	None			J, 334
			Treated Water (Includes Steam) (Internal)	Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01	
	M-3	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Lube Oil (Internal)	None	None			J, 334
Treated Water (Internal)			Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J	

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Pumps (HPCS or HPCI Main and Booster, LPCS, LPCI or RHR, and RCIC) (Bowl/Casing)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.2-a	3.2.1-02 3.2.1-04	B
Pumps (HPCS or HPCI Main and Booster, LPCS, LPCI or RHR, and RCIC) (Suction Head)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.2-a	3.2.1-02 3.2.1-04	B
Pumps (HPCS or HPCI Main and Booster, LPCS, LPCI or RHR, and RCIC) (Discharge Head)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.2-a	3.2.1-02 3.2.1-04	B

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes		
Valves (Check, Control, Hand, Motor Operated, and Relief Valves) (Body and Bonnet)	M-1	Carbon Steel	Lube Oil (Internal)	None	None			J, 334		
			Treated Water (Includes Steam) (Internal)	Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01			
				Loss of Material due to FAC	Flow-Accelerated Corrosion	V.D2.3-a	3.2.1-14	B		
				Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.3-b	3.2.1-02 3.2.1-04	B		
		Stainless Steel	Indoor Air (External)	None	None			J, 325		
	M-4	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.3-b	3.2.1-02 3.2.1-04	B		
				Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 318
					Indoor Air	None	None			J, 332

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
			(External)					

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Emergency Core Cooling System (BWR) (Auxiliary Pumps)	M-1	Carbon Steel	Lube Oil (Internal)	None	None			J, 334
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.2-a	3.2.1-02 3.2.1-04	D
		Grey Cast Iron	Treated Water (Internal)	Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
				Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Emergency Core Cooling System (BWR) (Misc. Tanks and Vessels)	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.1-a	3.2.1-02 3.2.1-04	D
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01	
				Loss of Material due to FAC	Flow-Accelerated Corrosion	V.D2.1-f	3.2.1-14	D

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Emergency Core Cooling System (BWR) (Steam Turbines)	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	V.D2.1-a	3.2.1-02 3.2.1-04	D
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	V.D2.1-b	3.2.1-01	
Auxiliary Heat Exchangers (Auxiliary Heat Exchanger tubing)	M-1	Copper Alloys	Lube Oil (External)	None	None			J, 334
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion Loss of Material due to Selective Leaching	Water Chemistry and One-Time Inspection			J
	M-5	Copper Alloys	Lube Oil (External)	None	None			J, 334
			Treated Water (Internal)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Water Chemistry and One-Time Inspection			J
Auxiliary Heat Exchangers (Auxiliary Heat Exchanger shell / housing)	M-1	Carbon Steel	Lube Oil (Internal)	None	None			J, 334





**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Auxiliary Strainers/Filters (Auxiliary Strainer Housing)	M-1	Carbon Steel	Lube Oil (Internal)	None	None			J
Emergency Core Cooling System (BWR) (ECCS Pump Suction Strainers)	M-1	Carbon Steel	Treated Water (Internal)	Flow Blockage due to Fouling	Protective Coating Monitoring and Maintenance			J, 330
				Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Treated Water (Internal)	Flow Blockage due to Fouling	Protective Coating Monitoring and Maintenance			J
				Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J

**TABLE 3.3.2-2 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Emergency Core Cooling System (BWR) (ECCS Pump Suction Strainers) (continued)	M-2	Carbon Steel	Treated Water (Internal)	Flow Blockage due to Fouling	Protective Coating Monitoring and Maintenance			J, 330
				Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Treated Water (Internal)	Flow Blockage due to Fouling	Protective Coating Monitoring and Maintenance			J
				Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	V.E.1-b	3.2.1-10	E
Pressure Regulators (Body and Bonnet)	M-4	Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 318
			Indoor Air (External)	None	None			J, 332

**TABLE 3.3.2-3 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR BUILDING SAMPLING (RXS) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Sample Lines)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and Section XI Inservice Inspection			J, 348
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-h	3.1.1-01	
				Cracking due to Thermal and Mechanical Loading	Water Chemistry and Section XI Inservice Inspection	IV.C1.1-i	3.1.1-07	I, 348
Piping (Piping and Fittings)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)			
				Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J

**TABLE 3.3.2-3 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR BUILDING SAMPLING (RXS) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 301
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection		J	
		Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)			
				Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection		J	
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection		J	
Heat Exchanger (Shell and Access Cover)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection		J, 309	

**TABLE 3.3.2-3 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR BUILDING SAMPLING (RXS) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Flow Orifice (Body)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)			
				Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Pump (Casing)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Filters (Shell and Access Cover)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J

**TABLE 3.3.2-3 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR BUILDING SAMPLING (RXS) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Immersion Element (Pressure Retaining Housing)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Includes Steam) (Internal)	Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)			
				Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Tank (Shell)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J

**TABLE 3.3.2-4 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – POST ACCIDENT SAMPLING SYSTEM (PASS)**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Indoor Air (Internal)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
	M-4	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
	Valves (Body and Bonnet)	M-1	Stainless Steel	Indoor Air (External)	None	None		
Indoor Air (Internal)				None	None			J, 325
Treated Water (Internal)				Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J



**TABLE 3.3.2-4 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – POST ACCIDENT SAMPLING SYSTEM (PASS)**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Heat Exchanger (Shell and Access Cover)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J

**TABLE 3.3.2-5 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – SCREEN WASH WATER (SCW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322
			Raw Water (Internal)	Loss of Material due to Erosion Loss of Material due to MIC	One-Time Inspection			J
		Plastics / Polymers	Indoor Air (External)	Cracking due to Various Degradation Mechanisms	Systems Monitoring			J
			Raw Water (Internal)	Cracking due to Various Degradation Mechanisms	One-Time Inspection			J
		Stainless Steel	Indoor Air (External)	None	None			J, 322
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J

**TABLE 3.3.2-5 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
SCREEN WASH WATER (SCW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
		Copper Alloys	Indoor Air (External)	None	None			J, 322
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Erosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J

**TABLE 3.3.2-5 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
SCREEN WASH WATER (SCW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Pump (Casing)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 322
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
Strainer (Body)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J

**TABLE 3.3.2-6 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT – SERVICE WATER (SW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings)	M-1	Carbon Steel	Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	A
		Copper Alloys	Indoor Air (External)	None	None			J, 332
			Raw Water (Internal)	Loss of Material due to Erosion	Open-Cycle Cooling Water System			H
				Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	A
				Loss of Material due to Selective Leaching	Selective Leaching of Materials	VII.C1.1-a	3.3.1-29	B

**TABLE 3.3.2-6 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT – SERVICE WATER (SW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	A
	M-4	Copper Alloys	Indoor Air (External)	None	None			J, 332
			Raw Water (Internal)	Loss of Material due to Erosion	Open-Cycle Cooling Water System			H
				Loss of Material due to MIC	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	A
	Piping (Underground Piping and Fittings)	M-1	Carbon Steel	Buried (External)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Buried Piping and Tanks Inspection	VII.C1.1-b	3.3.1-18

**TABLE 3.3.2-6 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT – SERVICE WATER (SW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Underground Piping and Fittings) (continued)	M-1	Carbon Steel	Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	A
		Copper Alloys	Indoor Air (External)	None	None			J, 332
			Raw Water (Internal)	Loss of Material due to Erosion	Open-Cycle Cooling Water System			H
				Flow Blockage due to Fouling Loss of Material due to MIC	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	A
Piping (Piping Specialties)	M-1	Plastics / Polymers	Indoor Air (External)	Cracking due to Various Degradation Mechanisms	Systems Monitoring			J
			Raw Water (Internal)	Cracking due to Various Degradation Mechanisms	Open-Cycle Cooling Water System			J

**TABLE 3.3.2-6 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT – SERVICE WATER (SW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping Specialties) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System			J
Valves (Body and Bonnet)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 332
			Raw Water (Internal)	Loss of Material due to Erosion	Open-Cycle Cooling Water System			H
				Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.2-a	3.3.1-17	A
				Loss of Material due to Selective Leaching	Selective Leaching of Materials	VII.C1.2-a	3.3.1-29	B



**TABLE 3.3.2-6 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT – SERVICE WATER (SW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.2-a	3.3.1-17	A
Heat Exchanger (Service Water Pump Motor Cooler Coils)	M-1	Copper Alloys	Lube Oil (External)	None	None			J, 334
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to MIC	Open-Cycle Cooling Water System	VII.C1.3-b	3.3.1-17	C
	M-5	Copper Alloys	Lube Oil (External)	None	None			J, 334
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System	VII.C1.3-b	3.3.1-17	C

**TABLE 3.3.2-6 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT – SERVICE WATER (SW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Flow Orifice (Body)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.4-a	3.3.1-17	A
	M-3	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.4-a	3.3.1-17	A
Pump (Casing)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due	Open-Cycle Cooling Water System			F

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
				to Pitting Corrosion				

**TABLE 3.3.2-6 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT – SERVICE WATER (SW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Basket Strainer (Body)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Galvanic Corrosion	Open-Cycle Cooling Water System			H
				Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.6-a	3.3.1-17	A
	M-2	Carbon Steel	Raw Water (Internal)	Loss of Material due to Galvanic Corrosion	Open-Cycle Cooling Water System			H
				Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.6-a	3.3.1-17	A

**TABLE 3.3.2-6 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT – SERVICE WATER (SW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
CW Strainer (Body Only)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 332
			Raw Water (Internal)	Loss of Material due to Selective Leaching	Selective Leaching of Materials	VII.C1.1-a	3.3.1-29	D
				Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.6-a	3.3.1-17	C

**TABLE 3.3.2-7 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – REACTOR BUILDING CLOSED COOLING WATER (RBCCW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Reactor Building Closed Cooling Water System</b>								
Piping (Pipe, Fittings, and Flanges)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.C2.1-a	3.3.1-15	A
		Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			F, 324
Piping (Piping Specialties)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			F, 324
Valves (Check, Hand, Control, Relief, Solenoid, and Containment Isolation) (Body and Bonnet)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.C2.2-a	3.3.1-15	A

**TABLE 3.3.2-7 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
REACTOR BUILDING CLOSED COOLING WATER (RBCCW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Check, Hand, Control, Relief, Solenoid, and Containment Isolation) (Body and Bonnet) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			F, 324
Pump (Casing)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.C2.3-a	3.3.1-15	A
Tank (Shell)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.C2.4-a	3.3.1-15	A
Flow Orifice (Body)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.C2.5-a	3.3.1-15	A
Closed-Cycle Cooling Water System	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due	Closed-Cycle Cooling Water System	VII.C2.1-a	3.3.1-15	C

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
(Strainers)				to General Corrosion Loss of Material due to Pitting Corrosion				



**TABLE 3.3.2-7 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
REACTOR BUILDING CLOSED COOLING WATER (RBCCW) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Closed-Cycle Cooling Water System (Heat Exchangers)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.C2.1-a	3.3.1-15	C, 309
Closed-Cycle Cooling Water System (Piping Specialties)	M-1	Glass	Indoor Air (External)	None	None			J, 319
			Treated Water (Internal)	None	None			J, 329
Valves (including check valves and containment isolation) (Body and Bonnet)	M-1	Stainless Steel	Dry Air / Gas (Internal)	None	None			J, 318
			Indoor Air (External)	None	None			J, 325
Pressure Regulators (Body and Bonnet)	M-1	Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 318
			Indoor Air (External)	None	None			J, 332
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
<b>Penetration Cooling System</b>								
Piping (Pipe, Fittings, and Flanges)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due	Closed-Cycle Cooling Water System	VII.C2.1-a	3.3.1-15	A

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
				to General Corrosion Loss of Material due to Pitting Corrosion				

**TABLE 3.3.2-7 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
REACTOR BUILDING CLOSED COOLING WATER (RBCCW) SYSTEM**

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Valves (Check, Hand, Control, Relief, Solenoid, and Containment Isolation) (Body and Bonnet)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.C2.2-a	3.3.1-15	A
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
				Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E

**TABLE 3.3.2-8 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Diesel Generator</b>								
Valves, Connected Pipe, Tubing & Fittings	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.2-a	3.3.1-05	E, 323
			Lube Oil (Internal)	None	None			J, 334
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.H2.1-a	3.3.1-15	C
		Copper Alloys	Indoor Air (External)	None	None			J, 301
			Lube Oil (Internal)	None	None			J, 334
		Stainless Steel	Indoor Air (External)	None	None			J, 301
			Lube Oil (Internal)	None	None			J, 334

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Diesel Fuel Oil</b>								
Piping (Aboveground Pipe and Fittings)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring			G, 323
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.2-a	3.3.1-05	E, 323
		Copper Alloys	Indoor Air (External)	None	None			J, 332
			Indoor Air (Internal)	None	None			J, 332
Piping (Underground Pipe and Fittings)	M-1	Carbon Steel	Buried (External)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Buried Piping and Tanks Inspection	VII.H1.1-b	3.3.1-18	B, 310
			Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring			G, 323
		Copper Alloys	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry			J
			Indoor Air (External)	None	None			J, 332
		Stainless Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry			J
				Loss of Material due to MIC	Preventive Maintenance			J
			Indoor Air (External)	None	None			J, 325
Pump (Casing)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring			G, 323
Tank (Internal Surface)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry and One Time Inspection	VII.H1.4-a	3.3.1-07	B, 306
Tank (External Surface)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring			G, 323
Immersion Element (Pressure Retaining)	M-1	Stainless Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry			J
			Indoor Air (External)	None	None			J, 325

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Housing)								

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Strainer (Body)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Tanks (Day and Drip)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry and One Time Inspection	VII.H2.5-a	3.3.1-07	B, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Filters (Shell)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
<b>Diesel Lube Oil System</b>								
Valves, Connected Pipe, Tubing & Fittings	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.2-a	3.3.1-05	E, 323
			Lube Oil (Internal)	None	None			J, 334
		Copper Alloys	Indoor Air (External)	None	None			J, 301
			Lube Oil (Internal)	None	None			J, 334



**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Heaters & Thermowells (Housing)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Lube Oil (Internal)	None	None			J, 334
Filter (Shell)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Lube Oil (Internal)	None	None			J, 334
Pump (Casing)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Lube Oil (Internal)	None	None			J, 334
Gauge Glass	M-1	Glass	Indoor Air (External)	None	None			J, 301
			Lube Oil (Internal)	None	None			J, 334
Heat Exchanger (Tubes)	M-1	Copper Alloys	Lube Oil (External)	None	None			J, 334
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Heat Exchanger (Tubes) (continued)	M-5	Copper Alloys	Lube Oil (External)	None	None			J, 334
			Treated Water (Internal)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Closed-Cycle Cooling Water System			J
Heat Exchanger (Shell)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Lube Oil (Internal)	None	None			J, 334
Heat Exchanger (Tube Sheet & Channel Head)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			J
Strainer (Casing)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Lube Oil (Internal)	None	None			J, 334
Strainer (Screen)	M-2	Strainer Element	Lube Oil (External)	Change in Material Properties due to Various Degradation Mechanisms Flow Blockage due to Fouling	Preventive Maintenance			J

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Diesel Jacket Water System</b>								
Heat Exchanger (Shell)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	<a href="#">Closed-Cycle Cooling Water System</a>	VII.C1.3-a	<a href="#">3.3.1-17</a>	E
Heat Exchanger (Channel)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	<a href="#">Closed-Cycle Cooling Water System</a>	VII.C1.3-a	<a href="#">3.3.1-17</a>	E
Heat Exchanger (Channel Head and Access Cover)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	<a href="#">Closed-Cycle Cooling Water System</a>	VII.C1.3-a	<a href="#">3.3.1-17</a>	E
		Copper Alloys	Raw Water (Internal)	Loss of Material due to MIC	<a href="#">Open-Cycle Cooling Water System</a>	VII.C1.3-a	<a href="#">3.3.1-17</a>	A
Heat Exchanger (Tubesheet)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	<a href="#">Closed-Cycle Cooling Water System</a>	VII.C1.3-a	<a href="#">3.3.1-17</a>	E

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Heat Exchanger (Tubesheet) (continued)	M-1	Copper Alloys	Raw Water (Internal)	Loss of Material due to Erosion	Open-Cycle Cooling Water System			H
				Loss of Material due to Galvanic Corrosion Loss of Material due to MIC	Open-Cycle Cooling Water System	VII.C1.3-a	3.3.1-17	A
	M-5	Copper Alloys	Raw Water (Internal)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System			H
Heat Exchanger (Tubes)	M-1	Copper Alloys	Raw Water (Internal)	Loss of Material due to Erosion	Open-Cycle Cooling Water System			H
				Loss of Material due to MIC	Open-Cycle Cooling Water System	VII.C1.3-a	3.3.1-17	A
				Loss of Material due to Galvanic Corrosion	Open-Cycle Cooling Water System	VII.C1.3-b	3.3.1-17	A
	M-5	Copper Alloys	Raw Water (Internal)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System	VII.C1.3-b	3.3.1-17	A
Piping (Pipe, Fittings, and Flanges)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
	M-4	Stainless Steel	Indoor Air (External)	None	None			J, 325

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Check, Hand, Control, Relief, Solenoid, and Containment Isolation) (Body and Bonnet)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
Closed-Cycle Cooling Water System (Piping Specialties)	M-1	Glass	Indoor Air (External)	None	None			J, 319
			Treated Water (Internal)	None	None			J, 329
		Stainless Steel	Indoor Air (External)	None	None			J, 325
Diesel Engine Cooling Water Subsystem (Pipe and Fittings)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Galvanic Corrosion	Closed-Cycle Cooling Water System			H
				Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.H2.1-a	3.3.1-15	A
		Glass	Indoor Air (External)	None	None			J, 319
			Treated Water (Internal)	None	None			J, 329

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Diesel Engine Cooling Water Subsystem (Pipe and Fittings) (continued)	M-1	Grey Cast Iron	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
		Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			F, 324
	M-3	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			F, 324
	M-4	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			F, 324

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Diesel Engine Cooling Water Subsystem (Tanks and Vessels)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			J
		Stainless Steel	Indoor Air (External)	None	None			J
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			J
Diesel Engine Cooling Water Subsystem (Heat Exchangers)	M-1	Copper Alloys	Indoor Air (External)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			J
			Loss of Material due to Selective Leaching	Selective Leaching of Materials			J	

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Diesel Engine Cooling Water Subsystem (Heat Exchangers) (continued)	M-5	Copper Alloys	Indoor Air (External)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Preventive Maintenance			J
			Treated Water (Internal)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Closed-Cycle Cooling Water System			J
Diesel Engine Cooling Water Subsystem (Pumps)	M-1	Grey Cast Iron	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
Diesel Engine Cooling Water Subsystem (Piping Specialties)	M-1	Glass	Indoor Air (External)	None	None			J, 319
			Treated Water (Internal)	None	None			J, 329
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E



**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes	
<b>DG Service Water System</b>									
Piping (Piping and Fittings)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E	
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	A	
		Copper Alloys	Indoor Air (External)	None	None				J, 332
			Raw Water (Internal)	Loss of Material due to Erosion	Open-Cycle Cooling Water System				H
				Flow Blockage due to Fouling Loss of Material due to MIC	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	A	

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping Specialties)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.1-a	3.3.1-17	C
Valves (Body and Bonnet)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 332
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.2-a	3.3.1-17	A
			Loss of Material due to Selective Leaching	Selective Leaching of Materials	VII.C1.2-a	3.3.1-29	B	

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 325
			Raw Water (Internal)	Flow Blockage due to Fouling Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Open-Cycle Cooling Water System	VII.C1.2-a	3.3.1-17	A
<b>DG Starting Air System</b>								
Pipe and Fittings	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.2-a	3.3.1-05	E, 323
	M-4	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.2-a	3.3.1-05	E, 323
Valves (Hand and Check)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
				Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.2-a	3.3.1-05	E, 323
				Loss of Material due to General Corrosion	Preventive Maintenance	VII.H2.2-a	3.3.1-05	E, 323

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Hand and Check) (continued)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322
			Indoor Air (Internal)	None	None			J, 322
		Stainless Steel	Indoor Air (External)	None	None			J, 322
			Indoor Air (Internal)	None	None			J, 322
Drain Trap	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.H2.2-a	3.3.1-05	E, 323
		Copper Alloys	Indoor Air (External)	None	None			J, 322
			Indoor Air (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Preventive Maintenance			F
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			F
Air Accumulator Vessel	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.2-a	3.3.1-05	E, 323
Filter (Shell)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.H2.2-a	3.3.1-05	E, 323

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Strainer (Shell)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.H2.2-a	3.3.1-05	E, 323
Strainer (Basket)	M-2	Filter Media	Dry Air / Gas (External)	Flow Blockage due to Fouling	Preventive Maintenance			J, 336
		Stainless Steel	Indoor Air (External)	None	None			J, 322
<b>DG Intake/Exhaust System</b>								
Piping and Fittings	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.3-a	3.3.1-05	E, 323
Filter	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.H2.3-a	3.3.1-05	E, 323
Muffler (Intake Silencer)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.3-a	3.3.1-05	E, 323
Turbo Charger (inlet-housing)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.3-a	3.3.1-05	E, 323

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valve (Body), connected piping, tubing and fittings	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.H2.3-a	3.3.1-05	E, 323
Turbo Charger (inlet-bellows)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 322
			Indoor Air (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	One-Time Inspection			J
Filter (media)	M-2	Strainer Element	Lube Oil (External)	Change in Material Properties due to Various Degradation Mechanisms Flow Blockage due to Fouling	Preventive Maintenance			J
Piping and Fittings	M-1	Carbon Steel	Diesel Exhaust Gas (Internal)	Loss of Material due to General, Crevice and Pitting Corrosion	One-Time Inspection	VII.H2.4-a	3.3.1-05	E
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Muffler (Exhaust)	M-4	Carbon Steel	Diesel Exhaust Gas (Internal)	Loss of Material due to General, Crevice and Pitting Corrosion	One-Time Inspection	VII.H2.4-a	3.3.1-05	E
			Outdoor Air (External)	Loss of Material due to Aggressive Chemical Attack Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Systems Monitoring			J
Fans (Housing)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Lube Oil (Internal)	None	None			J, 334
Oil Separator (Housing)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Lube Oil (Internal)	None	None			J, 334

**TABLE 3.3.2-8 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – DIESEL GENERATOR (DG) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valve (body), Connected Pipe & Fittings	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Lube Oil (Internal)	None	None			J, 334
Turbo Charger (exhaust-housing)	M-1	Carbon Steel	Diesel Exhaust Gas (Internal)	Loss of Material due to General, Crevice and Pitting Corrosion	One-Time Inspection	VII.H2.4-a	3.3.1-05	E
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Turbo Charger (exhaust-bellows)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 322
			Indoor Air (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	One-Time Inspection			J



**TABLE 3.3.2-9 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – HEAT TRACING SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Steam Drains)	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	One-Time Inspection	VIII.B2.1-a	3.4.1-07	E
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VIII.B2.1-c	3.4.1-01	
Valves (Check, Control, Hand, Motor Operated, Safety Valves) (Body and Bonnet)	M-1	Carbon Steel	Treated Water (Includes Steam) (Internal)	Loss of Material due to General Corrosion	One-Time Inspection			H
				Cracking due to Thermal Fatigue	TLAA, evaluated in accordance with 10 CFR 54.21(c)	VIII.B2.1-c	3.4.1-01	
				Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	One-Time Inspection	VIII.B2.2-b	3.4.1-07	E
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VIII.H.1-b	3.4.1-05	E

**TABLE 3.3.2-10 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – INSTRUMENT AIR (IA) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings)	M-1	Carbon Steel	Dry Air / Gas (Internal)	None	None			G, 308
		Copper Alloys	Dry Air / Gas (Internal)	None	None			F, 308
		Stainless Steel	Dry Air / Gas (Internal)	None	None			F, 308
	M-4	Carbon Steel	Dry Air / Gas (Internal)	None	None			G, 308
			Indoor Air (Internal)	Loss of Material due to General Corrosion	One-Time Inspection	VII.D.1-a	3.3.1-19	E
		Stainless Steel	Dry Air / Gas (Internal)	None	None			F, 308
Valves (including check valves and containment isolation) (Body and Bonnet)	M-1	Aluminum Alloys	Dry Air / Gas (Internal)	None	None			F, 308
		Carbon Steel	Dry Air / Gas (Internal)	None	None			G, 308
		Carbon Steel - Galvanized	Indoor Air (Internal)	None	None			F, 301
		Copper Alloys	Dry Air / Gas (Internal)	None	None			F, 308
		Stainless Steel	Dry Air / Gas (Internal)	None	None			F, 308
	M-4	Carbon Steel	Dry Air / Gas (Internal)	None	None			G, 308
		Stainless Steel	Dry Air / Gas (Internal)	None	None			F, 308

**TABLE 3.3.2-10 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
INSTRUMENT AIR (IA) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes	
Air Receiver (Shell and Access Cover)	M-1	Carbon Steel	Dry Air / Gas (Internal)	None	None			G, 308	
Pressure Regulators (Body and Bonnet)	M-4	Carbon Steel - Galvanized	Indoor Air (Internal)	None	None			F, 301	
Filter (Shell and Access Cover)	M-1	Stainless Steel	Dry Air / Gas (Internal)	None	None			F, 308	
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E	
	M-4	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E	
Non-Carbon Steel Components (External Surfaces)	M-1	Aluminum Alloys	Indoor Air (External)	None	None			J, 301	
		Carbon Steel - Galvanized	Indoor Air (External)	None	None			J, 301	
		Copper Alloys	Indoor Air (External)	None	None			J, 301	
		Stainless Steel	Indoor Air (External)	None	None			J, 301	
	M-4	Carbon Steel - Galvanized	Indoor Air (External)	None	None	None			J, 301
		Stainless Steel	Indoor Air (External)	None	None	None			J, 301

**TABLE 3.3.2-11 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – PNEUMATIC NITROGEN SYSTEM (PNS)**

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Piping (Piping and Fittings)	M-4	Stainless Steel	Dry Air / Gas (Internal)	None	None			F, 308
Valves (including check valves and containment isolation) (Body and Bonnet)	M-4	Stainless Steel	Dry Air / Gas (Internal)	None	None			F, 308
Filter (Shell and Access Cover)	M-4	Aluminum Alloys	Dry Air / Gas (Internal)	None	None			F, 308
Non-Carbon Steel Components (External Surfaces)	M-4	Aluminum Alloys	Indoor Air (External)	None	None			J, 301
		Stainless Steel	Indoor Air (External)	None	None			J, 301

**TABLE 3.3.2-12 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FIRE PROTECTION (FP) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Fire Protection Water</b>								
Piping and Fittings (Includes Carbon Steel Fire Water Tank)	M-1	Aluminum Alloys	Raw Water (Internal)	Cracking due to SCC Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System			F
		Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-a	3.3.1-21	A, 343
		Glass	Raw Water (Internal)	None	None			F, 320
		Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-a	3.3.1-21	A

**TABLE 3.3.2-12 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FIRE PROTECTION (FP) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (continued)	M-3	Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-a	3.3.1-21	A
Filter, Fire Hydrants, Mulsifier, Pump Casing, Sprinkler, Strainer, and Valve Bodies (including containment isolation valves)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-b	3.3.1-21	A, 342
		Copper Alloys	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-b	3.3.1-21	A, 342, 343
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			H

**TABLE 3.3.2-12 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FIRE PROTECTION (FP) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Filter, Fire Hydrants, Mulsifier, Pump Casing, Sprinkler, Strainer, and Valve Bodies (including containment isolation valves) (continued)	M-1	Grey Cast Iron	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-b	3.3.1-21	A, 342
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			H
	M-1	Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-b	3.3.1-21	A, 342
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			H
	M-8	Copper Alloys	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-b	3.3.1-21	A, 342, 343
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			H

**TABLE 3.3.2-12 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FIRE PROTECTION (FP) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
HTX - Heat Exchanger Shell and Access Cover	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Fire Protection			J
HTX - Heat Exchanger Tubes	M-1	Copper Alloys	Raw Water (Internal)	Loss of Material due to Erosion Loss of Material due to Galvanic Corrosion Loss of Material due to MIC	Fire Water System	VII.G.6-b	3.3.1-21	C
			Treated Water (External)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Fire Protection			J
	M-5	Copper Alloys	Raw Water (Internal)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Fire Water System			J
			Treated Water (External)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Fire Protection			J



**TABLE 3.3.2-12 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FIRE PROTECTION (FP) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Diesel-Driven Fire Pump and Fuel Supply Line	M-1	Grey Cast Iron	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fire Water System	VII.G.6-b	3.3.1-21	C, 344
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			H, 344
Carbon Steel Components (External Surfaces) (Includes Carbon Steel Fire Water Tank)	M-1	Carbon Steel	Buried (External)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Buried Piping and Tanks Inspection			G
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Outdoor Air (External)	Loss of Material due to General Corrosion	Aboveground Carbon Steel Tanks	VII.I.1-b	3.3.1-05	E

**TABLE 3.3.2-12 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FIRE PROTECTION (FP) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Carbon Steel Components (External Surfaces) (continued)	M-1	Carbon Steel - Galvanized	Indoor Air (External)	None	None			J, 322
			Outdoor Air (External)	Loss of Material due to Aggressive Chemical Attack Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E, 345
		Grey Cast Iron	Buried (External)	Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
				Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Buried Piping and Tanks Inspection			G
Non-Carbon Steel Components (External Surfaces)	M-1	Aluminum Alloys	Indoor Air (External)	None	None			J, 322
		Copper Alloys	Indoor Air (External)	None	None			J, 322
		Glass	Indoor Air (External)	None	None			J, 319
		Stainless Steel	Indoor Air (External)	None	None			J, 322

**TABLE 3.3.2-12 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FIRE PROTECTION (FP) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Fire Protection CO<sub>2</sub></b>								
CO2 Fire Suppression (HPCI)	M-1	Carbon Steel	Dry Air / Gas (Internal)	None	None			J, 318
		Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 318
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
		Carbon Steel - Galvanized	Indoor Air (External)	None	None			J, 322
Non-Carbon Steel Components (External Surfaces)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322
<b>Halon System</b>								
Halon Fire Suppression (DGB)	M-1	Aluminum Alloys	Dry Air / Gas (Internal)	None	None			J, 318
		Carbon Steel	Dry Air / Gas (Internal)	None	None			J, 318
		Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 318
		Stainless Steel	Dry Air / Gas (Internal)	None	None			J, 318

**TABLE 3.3.2-12 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FIRE PROTECTION (FP) SYSTEM**

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Non-Carbon Steel Components (External Surfaces)	M-1	Aluminum Alloys	Indoor Air (External)	None	None			J, 322
		Copper Alloys	Indoor Air (External)	None	None			J, 322
		Stainless Steel	Indoor Air (External)	None	None			J, 322

**TABLE 3.3.2-13 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
FUEL OIL (FO) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Diesel-Driven Fire Pump and Fuel Supply Line	M-1	Carbon Steel	Buried (External)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Buried Piping and Tanks Inspection			J, 310
			Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Valves Body and Tubing	M-1	Copper Alloys	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry and Fire Protection			J, 347
			Indoor Air (External)	None	None			J, 332
Diesel Fuel Tank	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry and One Time Inspection	VII.H1.4-a	3.3.1-07	D, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E

**TABLE 3.3.2-13 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FUEL OIL (FO) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Aboveground Pipe and Fittings)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306
			Outdoor Air (External)	Loss of Material due to Aggressive Chemical Attack Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Systems Monitoring	VII.H1.1-a	3.3.1-05	E, 346
Valves (Body and Bonnet)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to MIC	Fuel Oil Chemistry	VII.H2.5-a	3.3.1-07	E, 306
			Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Outdoor Air (External)	Loss of Material due to Aggressive Chemical Attack Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Systems Monitoring	VII.H1.2-a	3.3.1-05	E, 346

**TABLE 3.3.2-13 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FUEL OIL (FO) SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Tank (Internal Surface)	M-1	Carbon Steel	Fuel Oil (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Fuel Oil Chemistry and One Time Inspection	VII.H1.4-a	3.3.1-07	B
Tank (External Surface)	M-1	Carbon Steel	Outdoor Air (External)	Loss of Material due to Aggressive Chemical Attack Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Aboveground Carbon Steel Tanks	VII.H1.4-b	3.3.1-23	A, 346

**TABLE 3.3.2-14 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – RADIOACTIVE FLOOR DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
	M-4	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Drain System Sump Pumps	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
		Grey Cast Iron	Raw Water (External)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J



**TABLE 3.3.2-14 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
RADIOACTIVE FLOOR DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Drain System Sump Pumps (continued)	M-1	Grey Cast Iron	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
Piping (Piping and Fittings)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J

**TABLE 3.3.2-14 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
RADIOACTIVE FLOOR DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings) (continued)	M-1	Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
	M-4	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
Valves (Body and Bonnet)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J

**TABLE 3.3.2-14 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
RADIOACTIVE FLOOR DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet) (continued)	M-1	Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 318
		Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
	M-4	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J

**TABLE 3.3.2-14 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
RADIOACTIVE FLOOR DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Flow Orifice (Body)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J, 340
		Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J, 340
	M-4	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J, 340
		Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J, 340

**TABLE 3.3.2-14 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
RADIOACTIVE FLOOR DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Pump (Casing)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
		Grey Cast Iron	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
		Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J

**TABLE 3.3.2-14 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
RADIOACTIVE FLOOR DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Tank (Shell)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
Non-Carbon Steel Components (External Surfaces)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322
		Stainless Steel	Indoor Air (External)	None	None			J, 322
	M-4	Stainless Steel	Indoor Air (External)	None	None			J, 322

**TABLE 3.3.2-15 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – RADIOACTIVE EQUIPMENT DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
	M-4	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Piping (Piping and Fittings)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Valves (Body and Bonnet)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 318
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J

**TABLE 3.3.2-15 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
RADIOACTIVE EQUIPMENT DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Heat Exchanger (Shell and Access Cover)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J, 309
Flow Orifice (Body)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
	M-3	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J



**TABLE 3.3.2-15 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
RADIOACTIVE EQUIPMENT DRAINS SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Pump (Casing)	M-1	Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Tank (Shell)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Non-Carbon Steel Components (External Surfaces)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322
		Stainless Steel	Indoor Air (External)	None	None			J, 322

**TABLE 3.3.2-16 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – MAKEUP WATER TREATMENT SYSTEM (MWTS)**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Water Treatment System</b>								
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Piping (Piping and Fittings)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
Valves (Body and Bonnet)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
		Stainless Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J

**TABLE 3.3.2-16 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
MAKEUP WATER TREATMENT SYSTEM (MWTS)**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Non-Carbon Steel Components (External Surfaces)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 322
<b>Demineralized Water System</b>								
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Piping (Piping and Fittings)	M-1	Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Valves (Body and Bonnet)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Grey Cast Iron	Treated Water (Internal)	Loss of Material due to Selective Leaching	Selective Leaching of Materials			J

**TABLE 3.3.2-16 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
MAKEUP WATER TREATMENT SYSTEM (MWTS)**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet) (continued)	M-1	Grey Cast Iron	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Tank (Shell)	M-1	Aluminum Alloys	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Galvanic Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Non-Carbon Steel Components (External Surfaces)	M-1	Aluminum Alloys	Outdoor Air (External)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Systems Monitoring			J
		Stainless Steel	Indoor Air (External)	None	None			J, 322

**TABLE 3.3.2-17 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – POTABLE WATER SYSTEM (PWS)**

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Piping (Piping and Fittings)	M-1	Copper Alloys	Raw Water (Internal)	Loss of Material due to MIC	One-Time Inspection			J
Valves (Body and Bonnet)	M-1	Copper Alloys	Raw Water (Internal)	Loss of Material due to MIC	One-Time Inspection			J
Tank (Shell)	M-1	Copper Alloys	Raw Water (Internal)	Loss of Material due to MIC	One-Time Inspection			J
Non-Carbon Steel Components (External Surfaces)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322

**TABLE 3.3.2-18 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – PROCESS RADIATION MONITORING (PRM) SYSTEM**

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Closed-Cycle Cooling Water System (Piping Specialties)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.C2.1-a	3.3.1-15	C
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	None	None			J, 341

**TABLE 3.3.2-19 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – LIQUID WASTE PROCESSING SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
	M-4	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Piping (Piping and Fittings)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
	M-4	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J

**TABLE 3.3.2-19 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION –  
LIQUID WASTE PROCESSING SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet)	M-1	Carbon Steel	Dry Air / Gas (Internal)	None	None			J, 318
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Immersion Element (Pressure Retaining Housing)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Tank (Shell)	M-1	Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Non-Carbon Steel Components (External Surfaces)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 322



**TABLE 3.3.2-20 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FUEL POOL COOLING AND CLEANUP SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping, Fittings, and Flanges)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			F
		Glass	Treated Water (Internal)	None	None			F, 329
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	VII.A4.1-a	3.3.1-01	B
	M-3	Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	VII.A4.1-a	3.3.1-01	B
Valves (Check and Hand Valves) (Body and Bonnet)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			F
		Stainless Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	VII.A4.3-a	3.3.1-01	B

**TABLE 3.3.2-20 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FUEL POOL COOLING AND CLEANUP SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Heat Exchanger (Shell and Access Cover)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Closed-Cycle Cooling Water System	VII.A4.4-a	3.3.1-15	A. 309
Heat Exchanger (Channel Head and Access Cover)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	VII.A4.4-b	3.3.1-01	B, 309
Pump (Casing)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			F
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E

**TABLE 3.3.2-20 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – FUEL POOL COOLING AND CLEANUP SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Non-Carbon Steel Components (External Surfaces)	M-1	Glass	Indoor Air (External)	None	None			J, 319
		Stainless Steel	Indoor Air (External)	None	None			J, 322
			Treated Water (External)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection	VII.A4.1-a	3.3.1-01	D, 339

**TABLE 3.3.2-21 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – HVAC DIESEL GENERATOR BUILDING**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings)	M-1	Copper Alloys	Dry Air / Gas (Internal)	None	None			G, 308
		Plastics / Polymers	Indoor Air (Internal)	Cracking due to Various Degradation Mechanisms	Preventive Maintenance			F
	M-4	Copper Alloys	Dry Air / Gas (Internal)	None	None			G, 308
Valves (including check valves and containment isolation) (Body and Bonnet)	M-1	Aluminum Alloys	Dry Air / Gas (Internal)	None	None			F, 308
	M-4	Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 308
Air Receiver (Shell and Access Cover)	M-4	Carbon Steel	Dry Air / Gas (Internal)	None	None			G, 304
		Copper Alloys	Dry Air / Gas (Internal)	None	None			G, 304
Duct (Duct, Fittings, Fan Housings, Damper Housings, Access Doors, and Closure Bolts)	M-1	Carbon Steel	Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.F4.1-a	3.3.1-05	E, 302
		Carbon Steel - Galvanized	Indoor Air (Internal)	None	None	VII.F4.1-a	3.3.1-05	I, 303
		Plastics / Polymers	Indoor Air (Internal)	None	None			F, 305
		Stainless Steel	Outdoor Air (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Preventive Maintenance			F
	M-4	Carbon	Indoor Air	Loss of Material due	Preventive	VII.F4.1-a	3.3.1-05	E, 302

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
		Steel	(Internal)	to General Corrosion	Maintenance			

**TABLE 3.3.2-21 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – HVAC  
DIESEL GENERATOR BUILDING**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes	
Duct (Equipment Frames and Housing)	M-1	Carbon Steel - Galvanized	Outdoor Air (Internal)	Loss of Material due to Aggressive Chemical Attack Loss of Material due to General Corrosion	Preventive Maintenance			G, 302	
Duct (Seals in Dampers and Doors)	M-1	Elastomers	Indoor Air (Internal)	Cracking due to Various Degradation Mechanisms	Preventive Maintenance	VII.F4.1-b	3.3.1-02	E	
				Loss of Material due to Wear	Preventive Maintenance	VII.F4.1-c	3.3.1-02	E	
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E	
			Outdoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring			J	
	M-4	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E	
Non-Carbon Steel Components (External Surfaces)	M-1	Aluminum Alloys	Indoor Air (External)	None	None			J, 301	
		Carbon Steel - Galvanized	Indoor Air (External)	None	None			J, 303	
		Copper Alloys	Indoor Air (External)	None	None	None			J, 313
		Elastomers	Indoor Air (External)	Cracking due to Various Degradation Mechanisms Loss of Material due to Wear	Systems Monitoring			J	



**TABLE 3.3.2-21 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – HVAC  
DIESEL GENERATOR BUILDING**

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Non-Carbon Steel Components (External Surfaces) (continued)	M-1	Plastics / Polymers	Indoor Air (External)	Cracking due to Various Degradation Mechanisms	Systems Monitoring			J
	M-4	Copper Alloys	Indoor Air (External)	None	None			J, 313



**TABLE 3.3.2-22 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – HVAC REACTOR BUILDING**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping (Piping and Fittings)	M-1	Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 308
Valves (including check valves and containment isolation) (Body and Bonnet)	M-1	Aluminum Alloys	Dry Air / Gas (Internal)	None	None			F, 308
		Copper Alloys	Dry Air / Gas (Internal)	None	None			J, 308
	M-4	Aluminum Alloys	Dry Air / Gas (Internal)	None	None			F, 308
Air Receiver (Shell and Access Cover)	M-1	Carbon Steel	Dry Air / Gas (Internal)	None	None			G, 308
Duct (Duct Fittings, Access Doors, Damper Housings and Closure Bolts)	M-1	Carbon Steel	Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.F3.1-a	3.3.1-05	E, 302
		Carbon Steel - Galvanized	Indoor Air (Internal)	None	None			J, 303
		Plastics / Polymers	Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance			E, 302
	M-4	Carbon Steel - Galvanized	Indoor Air (Internal)	None	None			F, 305
								J, 303
Duct (Equipment Frames and Housing, including Fan Housings)	M-1	Carbon Steel	Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.F3.1-a	3.3.1-05	E, 302

**TABLE 3.3.2-22 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – HVAC REACTOR BUILDING**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Duct (Flexible Collars between Ducts and Fans)	M-1	Elastomers	Indoor Air (Internal)	Cracking due to Various Degradation Mechanisms	Preventive Maintenance	VII.F3.1-b	3.3.1-02	E
				Loss of Material due to Wear	Preventive Maintenance	VII.F3.1-c	3.3.1-02	E
		Stainless Steel	Indoor Air (Internal)	None	None			F, 301
Duct (Seals in Dampers and Doors)	M-1	Elastomers	Indoor Air (Internal)	Cracking due to Various Degradation Mechanisms	Preventive Maintenance	VII.F3.1-b	3.3.1-02	E
				Loss of Material due to Wear	Preventive Maintenance	VII.F3.1-c	3.3.1-02	E
Air Handler Heating/Cooling (Heating/Cooling Coils)	M-1	Copper Alloys	Raw Water (Internal)	Loss of Material due to Erosion Loss of Material due to Galvanic Corrosion Loss of Material due to MIC	Open-Cycle Cooling Water System			G
	M-5	Copper Alloys	Raw Water (Internal)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System			G
Piping (Piping and Fittings)	M-4	Carbon Steel	Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance			G
Filters (Housing and Supports)	M-1	Carbon Steel	Indoor Air (Internal)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.F3.4-a	3.3.1-05	E, 315

**TABLE 3.3.2-22 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – HVAC REACTOR BUILDING**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Filters (Elastomer Seals)	M-1	Elastomers	Indoor Air (Internal)	Loss of Material due to Wear	Preventive Maintenance			J
				Cracking due to Various Degradation Mechanisms	Preventive Maintenance	VII.F3.4-b	3.3.1-02	E
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
			Outdoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring			G
	M-4	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E
Non-Carbon Steel Components (External Surfaces)	M-1	Aluminum Alloys	Indoor Air (External)	None	None			J, 301
		Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring			J, 312
		Carbon Steel - Galvanized	Indoor Air (External)	None	None			J, 301
		Copper Alloys	Indoor Air (External)	None	None			J, 313
		Elastomers	Indoor Air (External)	Cracking due to Various Degradation Mechanisms Loss of Material due to Wear	Systems Monitoring			J
		Plastics / Polymers	Indoor Air (External)	None	None			J, 301

**TABLE 3.3.2-22 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – HVAC REACTOR BUILDING**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Non-Carbon Steel Components (External Surfaces) (continued)	M-1	Stainless Steel	Indoor Air (External)	None	None			J, 301
			Outdoor Air (External)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Systems Monitoring			J
	M-4	Aluminum Alloys	Indoor Air (External)	None	None			J, 301
		Carbon Steel - Galvanized	Indoor Air (External)	None	None			J, 303
Non-Carbon Steel Components (External Surfaces) (Heat Exchanger)	M-1	Copper Alloys	Indoor Air (External)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
	M-5	Copper Alloys	Indoor Air (External)	Loss of Heat Transfer Effectiveness due to Fouling of Heat Transfer Surfaces	Preventive Maintenance			J

**TABLE 3.3.2-23 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – TORUS DRAIN SYSTEM**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Piping and Fittings (Misc. auxiliary and drain piping and valves)	M-1	Carbon Steel	Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
		Stainless Steel	Indoor Air (External)	None	None			J, 325
			Treated Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to Pitting Corrosion	Water Chemistry and One-Time Inspection			J
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	V.E.1-b	3.2.1-10	E

**TABLE 3.3.2-24 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – CIVIL STRUCTURE  
AUXILIARY SYSTEMS**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Primary Containment Auxiliary Systems</b>								
Piping (Piping and Fittings)	M-1	Stainless Steel	Indoor Air (External)	None	None	V.C.1-b	3.2.1-05 3.2.1-06	I, 322, 338
			Indoor Air (Internal)	None	None	V.C.1-b	3.2.1-05 3.2.1-06	I, 322, 338
Valves (Body and Bonnet)	M-1	Stainless Steel	Indoor Air (External)	None	None	V.C.1-b	3.2.1-05 3.2.1-06	I, 322, 338
			Indoor Air (Internal)	None	None	V.C.1-b	3.2.1-05 3.2.1-06	I, 322, 338
<b>Service Water Intake Structure Auxiliary Systems</b>								
Piping (Piping and Fittings)	M-1	Plastics / Polymers	Indoor Air (External)	None	None			J, 322
			Raw Water (Internal)	None	None			J, 320
Valves (Body and Bonnet)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
			Raw Water (Internal)	Loss of Material due to Selective Leaching	Selective Leaching of Materials			J

**TABLE 3.3.2-24 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – CIVIL STRUCTURE AUXILIARY SYSTEMS**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Pump (Casing)	M-1	Grey Cast Iron	Raw Water (External)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J

**TABLE 3.3.2-24 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – CIVIL STRUCTURE AUXILIARY SYSTEMS**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Gauge Glasses (Pressure Retaining Housing)	M-1	Copper Alloys	Indoor Air (External)	None	None			J, 322
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
		Glass	Indoor Air (External)	None	None			J, 322
			Raw Water (Internal)	None	None			J, 320



**TABLE 3.3.2-24 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – CIVIL STRUCTURE AUXILIARY SYSTEMS**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
<b>Diesel Generator Building Auxiliary Systems</b>								
Piping (Piping and Fittings)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
Valves (Body and Bonnet)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
Pump (Casing)	M-1	Grey Cast Iron	Raw Water (External)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J



**TABLE 3.3.2-24 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – CIVIL STRUCTURE AUXILIARY SYSTEMS**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Pump (Casing) (continued)	M-1	Grey Cast Iron	Raw Water (External)	Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
<b>Control Building Auxiliary Systems</b>								
Piping (Piping and Fittings)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J

**TABLE 3.3.2-24 (continued) AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – CIVIL STRUCTURE AUXILIARY SYSTEMS**

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Valves (Body and Bonnet)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Preventive Maintenance	VII.I.1-b	3.3.1-05	E
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
Pump (Casing)	M-1	Grey Cast Iron	Raw Water (External)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
				Loss of Material due to Selective Leaching	Selective Leaching of Materials			J
			Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	Preventive Maintenance			J
				Loss of Material due to	Selective Leaching of			J

Component Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
				Selective Leaching	Materials			

**TABLE 3.3.2-25 AUXILIARY SYSTEMS – SUMMARY OF AGING MANAGEMENT EVALUATION – NON-CONTAMINATED WATER DRAINAGE SYSTEM (NCWDS)**

<b>Component Commodity</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Program</b>	<b>NUREG-1801 Volume 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Piping (Piping and Fittings)	M-1	Carbon Steel	Raw Water (Internal)	Loss of Material due to Crevice Corrosion Loss of Material due to General Corrosion Loss of Material due to MIC Loss of Material due to Pitting Corrosion	One-Time Inspection			J
Carbon Steel Components (External Surfaces)	M-1	Carbon Steel	Indoor Air (External)	Loss of Material due to General Corrosion	Systems Monitoring	VII.I.1-b	3.3.1-05	E

Notes for Tables 3.3.2-1 through 3.3.2-26:

Generic Notes:

- A. Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- B. Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- C. Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- D. Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- E. Consistent with NUREG-1801 for material, environment, and aging effect, but a different AMP is credited.
- F. Material not in NUREG-1801 for this component.
- G. Environment not in NUREG-1801 for this component and material.
- H. Aging effect not in NUREG 1801 for this component, material, and environment combination.
- I. Aging effect in NUREG-1801 for this component, material, and environment combination is not applicable.
- J. Neither the component nor the material and environment combination is evaluated in NUREG-1801.

Plant-specific Notes:

- 301. The BSEP AMR methodology concluded that the subject material in an Indoor Air environment and the absence of moisture has no aging effects.
- 302. NUREG-1801 identified potential aging effects/mechanisms that were not predicted by BSEP AMR methodology. Crevice and pitting corrosion are not applicable due to the lack of sustained wetting and aggressive chemical species required to produce these aging mechanisms. MIC has not been observed in BSEP HVAC environments.
- 303. NUREG-1801 identified potential aging effects/mechanisms that were not predicted by BSEP AMR methodology. General, crevice, and pitting corrosion are not applicable due to the lack of sustained wetting and aggressive chemical species required to produce these aging mechanisms. MIC has not been observed in BSEP HVAC environments.
- 304. Components in this item contain dry compressed nitrogen supplied from bottles. The BSEP AMR methodology concluded that the subject material and environment combination has no aging effects.
- 305. The BSEP AMR methodology concluded that the subject non-metallic material in an Indoor Air environment has no aging effects/aging mechanisms.

306. The BSEP AMR methodology does not predict general, pitting, or crevice corrosion or biofouling in fuel oil without the possibility of water pooling. The BSEP fuel oil storage system has no history of water intrusion or particulate contamination. The Fuel Oil Chemistry Program is confirmed using one-time inspections of fuel storage tanks.
307. The component environment is Indoor Air in piping.
308. The commodity identifies compressed air/gas components used for pneumatic controls. The BSEP design includes air dryers to ensure that moisture does not cause corrosion for the components in this item (Ref. NUREG-1801, VII.D). The BSEP AMR methodology predicts no aging effects for the subject material in a dry air/gas environment.
309. The heat exchanger(s) in question are only in-scope for potential spatial interactions with safety-related components. As such, only the heat exchanger shell requires an aging management review. The heat exchanger tubes do not have an intended function requiring aging management.
310. The BSEP AMR methodology does not predict galvanic corrosion for coated underground piping.
311. Not used.
312. Components on this line are constructed of cast iron.
313. NUREG-1801 (VII.F) identified potential aging effects/mechanisms. The BSEP AMR methodology predicts no aging effects for the subject material and environment. Crevice and pitting corrosion are not applicable due to the lack of sustained wetting and aggressive chemical species required to produce these aging mechanisms.
314. Loss of material due to crevice and pitting corrosion is predicted by the BSEP AMR methodology but not by NUREG-1801.
315. NUREG-1801 identified potential aging effects/mechanisms. Crevice and pitting corrosion are not applicable due to the lack of sustained wetting and aggressive chemical species required to produce these aging mechanisms.
316. NUREG-1801 (VII.D) identified potential aging effects/mechanisms. The BSEP AMR methodology predicted that pitting corrosion is not applicable due to the lack of sustained wetting and aggressive chemical species required to produce this aging mechanism.
317. The BSEP AMR methodology concluded that aluminum in an Indoor Air environment has no aging effects.
318. The BSEP AMR methodology concluded that the subject material exposed to dry air or gas exhibits no aging effects.
319. The BSEP AMR methodology concluded that glass in an Indoor Air environment exhibits no aging effects.
320. The BSEP AMR methodology concluded that glass or PVC in a raw water environment exhibits no aging effects.
321. The fire protection program provides further confirmation that diesel fire pump fuel supply line is free of obstructions.
322. The BSEP AMR methodology concluded that the subject material in an Indoor Air environment exhibits no aging effects.
323. NUREG-1801 identified potential aging effects/mechanisms that were not predicted by the BSEP AMR methodology. Crevice and pitting corrosion are not applicable due to the lack of sustained wetting and aggressive chemical species required to produce these aging mechanisms.
324. Stainless steel is not evaluated by NUREG-1801 in this situation.
325. The BSEP AMR methodology concluded that stainless steel in an Indoor Air environment has no aging effects.
326. The BSEP AMR methodology does not predict loss of material due to general corrosion on the external surfaces of carbon steel structures and components exposed to operating temperatures greater than 212 °F.



327. The BSEP AMR methodology concluded that carbon steel exposed to dry air or gas exhibits no aging effects.
328. The two listed programs are substituted for AMP XI.M25. The water chemistry requirements are captured in the Water Chemistry Program and the NUREG-0313 and Generic Letter 88-01 inspection requirements are captured as augmented inspections in the ASME Section XI Inservice Inspection, IWB, IWC, and IWD Program.
329. The BSEP AMR methodology concluded that glass in a treated water environment has no aging effects.
330. Potential for fouling associated with failed coatings is managed by the Protective Coating Monitoring and Maintenance Program.
331. These components operate at temperatures substantially above ambient, such that moisture-related external corrosion is not expected.
332. The BSEP AMR methodology concluded that copper alloys in an indoor environment have no aging effects in the absence of sustained wetting.
333. Components in this group operate below the threshold temperature at which the SCC is predicted.
334. The BSEP AMR methodology concluded that the subject material in a lubricating oil environment has no aging effects.
335. Thermal insulation is credited in room cooler evaluations. Applicable insulation classes are glass fiber or calcium silicate, depending on temperature. No aging effects are predicted for these materials in an indoor environment.
336. Periodically inspected by the Preventive Maintenance Program.
337. Plant evaluation states that erosion/FAC not predicted on turbine supply piping based on high quality of steam.
338. Pertains to tubing and valves connected to pressure indicator instrumentation used on the Drywell personnel lock.
339. This line item represents the submerged components.
340. These components are in scope for spatial interaction/seismic support only. Flow restriction (M-3) function does not require aging management.
341. This line item pertains to instrument wells protected from the external environment and not susceptible to external corrosion.
342. The raw water internal environment for these components is relatively clean and, therefore, not expected to result in corrosion build-up sufficient to cause biofouling.
343. Since these components are not in contact with materials higher in the galvanic series, the BSEP AMR methodology does not predict galvanic corrosion for them.
344. This entry includes only the Diesel-Driven Fire Pump casing; the fuel supply line is addressed in the Fuel Oil System.
345. The BSEP AMR methodology does not predict crevice or pitting corrosion for galvanized carbon steel in an outdoor environment, but does predict loss of material due to aggressive chemical attack from the salt laden (sea-borne) air.
346. The BSEP AMR methodology predicts loss of material due to aggressive chemical attack on the external surfaces of unprotected carbon steel structures and components exposed to an outdoor environment.
347. Periodic testing of the diesel-driven fire pump ensures that the fuel supply line and associated components can perform their intended function.

348. BSEP requested and received approval to implement Risk-Informed ISI. In support of the submittal, evaluations of degradation mechanisms were performed; and cracking due to thermal and mechanical loadings was evaluated and dispositioned as not applicable. The risk associated with cracking due to SCC is bounded by those components selected for inservice inspection as part of the Risk-Informed ISI Program. Therefore, the current inspection methods as detailed in the ASME Section XI Inservice Inspection, Subsections IWB, IWC and IWD Program, supplemented by the Water Chemistry Program will manage cracking of small bore piping.
349. Applies to portion of drains system in proximity to safety related components.