Application for Renewed Operating License - Palisades Nuclear Plant
Precedent Table for Section 3.2, Engineered Safety Features

Table 3.2.2-1 Engineered Safety Features - Engineering Safeguards System - Summary of Aging Management Evaluation											
Component Type	**Intended Function**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Programs**	**NUREG - 1801 Volume 2 Line Item**	**Table 1 Item**	**Notes**	**Rev 1 NUREG - 1801 Volume 2 Line Item**	**Rev 1 NUREG - 1801 Volume 1 Table Row (Table # - Row #)**	**Rev 1 NUREG - 1801 Notes**
SIRW Tank	Fluid Pressure Boundary	Aluminum	Treated Water (Int)	Cracking	Water Chemistry Program	V.D1.8-a	3.2.1-15	F, 210	V.D2-16	2-10	A
					One-Time Inspection Program	V.D1.8-a	3.2.1-15	F, 210	V.D2-16	2-10	B, 2001
Safety Injection Tank	Fluid Pressure Boundary	Carbon Steel w/SS clad lining	Containment Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.D1.7-a	3.2.1-17	A			
					System Monitoring Program	V.E1-b	3.2.1-10	A			
SDC HX Shell	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.D1.5-b	3.2.1-17	A			
			Treated Water (Int)	Loss of Material	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	B			
SIRWT HX Shell	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.D1.6-d	3.2.1-17	A			
			Steam (Int)	Loss of Material	Water Chemistry Program			G, 211	VIII.J-3	4-2	C
					One-Time Inspection Program			G, 211	VIII.J-3	4-2	D

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SDC, SIRWT HX Shell	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext)	Loss of Material	System Monitoring Program	V.E1-b	3.2.1-10	A			
SDC HX Channel Head	Fluid Pressure Boundary	Carbon Steel w/SS clad lining	Plant Indoor Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.D1.5-b	3.2.1-17	A			
					System Monitoring Program	V.E1-b	3.2.1-10	A			
SDC HX Tube Sheet shell side	Fluid Pressure Boundary	Carbon Steel w/SS clad lining	Treated Water (Ext)	Loss of Material	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	B			
SDC HX Channel Head shell side	Fluid Pressure Boundary	Carbon Steel w/SS clad lining	Treated Water (Int)	Loss of Material	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	B			
Cont. Spray Pump HX shell, LPSI Pump HX shell	Fluid Pressure Boundary	Cast Iron	Plant Indoor Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.E1-a	3.2.1-17	A			
					System Monitoring Program	V.E1-b	3.2.1-10	A			
			Treated Water (Int)	Loss of Material	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	H, 212	V.A-12	2-19	A

Table 3.2.2-1 Engineered Safety Features - Engineering Safeguards System - Summary of Aging Management Evaluation											
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					One-Time Inspection Program	V.D1.5-a	3.2.1-13	H, 212	V.A-12	2-19	B
SIRWT HX Tubes	Fluid Pressure Boundary	Stainless Steel	Steam (Ext)	Cracking Heat Transfer Degradation Loss of Material	Water Chemistry Program	V.D1.6-a	3.2.1-13	G, 211	VIII.B1-2 V.A-10 VIII.B2-2	4-20 2-24 4-29	C C C
					One-Time Inspection Program	V.D1.6-a	3.2.1-13	G, 211	IV.D1-9	1-61	E
Cont. Spray, LPSI Pump coils	Fluid Pressure Boundary	Stainless Steel	Treated Water (Ext)	Cracking	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	H	V.D1-19	2-31	E
PCP Seal Cooler Coils, Cont. Spray Pump coils, LPSI pump Coils, SDC HX Tubes	Fluid Pressure Boundary Heat Transfer	Stainless Steel	Treated Water (Ext)	Heat Transfer Degradation	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	H	VII.C2-2	3-40	A
				Loss of Material	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	B			

Table 3.2.2-1 Engineered Safety Features - Engineering Safeguards System - Summary of Aging Management Evaluation											
Component Type	**Intended Function**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Programs**	**NUREG - 1801 Volume 2 Line Item**	**Table 1 Item**	**Notes**	**Rev 1 NUREG - 1801 Volume 2 Line Item**	**Rev 1 NUREG - 1801 Volume 1 Table Row (Table # - Row #)**	**Rev 1 NUREG - 1801 Notes**
SDC HX Tubes	Fluid Pressure Boundary Heat Transfer	Stainless Steel	Treated Water (Ext)	Loss of Material	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	B			
PCP Seal Cooler Coils, SIRWT HX Tubes	Fluid Pressure Boundary Heat Transfer	Stainless Steel	Treated Water (Int)	Cracking	Water Chemistry Program	V.D1.5-a	3.2.1-13	H	V.D1-19	2-31	C
PCP Seal Cooler Coils	Fluid Pressure Boundary	Stainless Steel	Treated Water (Int)	Cracking	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	H	VIII.E-34	4-9	E
				Loss of Material	Closed Cycle Cooling Water Program	V.D1.5-a	3.2.1-13	B			
SIRWT HX Tubes	Fluid Pressure Boundary Heat Transfer	Stainless Steel	Treated Water (Int)	Cracking	One-Time Inspection Program	V.D1.6-a	3.2.1-13	G	V.D1-19	2-31	D
Cont. Spray Pump Coils, SDC HX Tubes	Fluid Pressure Boundary Heat Transfer	Stainless Steel	Treated Water (Int)	Heat Transfer Degradation	Water Chemistry Program	V.D1.5-a	3.2.1-13	H	V.D2-10	2-24	A
				Loss of Material	Water Chemistry Program	V.D1.5-a	3.2.1-13	A, 204			

Table 3.2.2-1 Engineered Safety Features - Engineering Safeguards System - Summary of Aging Management Evaluation											
Component Type	**Intended Function**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Programs**	**NUREG - 1801 Volume 2 Line Item**	**Table 1 Item**	**Notes**	**Rev 1 NUREG - 1801 Volume 2 Line Item**	**Rev 1 NUREG - 1801 Volume 1 Table Row (Table # - Row #)**	**Rev 1 NUREG - 1801 Notes**
SIRWT HX Tubes, Cont. Spray Pump coils, LPSI Pump coils, SDC HX Tubes	Fluid Pressure Boundary	Stainless Steel	Treated Water (Int)	Heat Transfer Degradation	One-Time Inspection Program	V.D1.5-a	3.2.1-13	H	V.D2-10	2-24	B
				Loss of Material	One-Time Inspection Program	V.D1.6-a	3.2.1-13	G	V.D2-23	2-3	B
Fasteners	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext) Containment Air (Ext)	Loss of Preload	Bolting Integrity Program			206, F	V.E-5	2-25	A
				Loss of Material	Bolting Integrity Program	V.E.2-a	3.2.1-18	A			
		Stainless Steel	Plant Indoor Air (Ext) Containment Air (Ext)	Loss of Preload	Bolting Integrity Program			206, F	IV.C2-9	1-44	A

Table 3.2.2-1 Engineered Safety Features - Engineering Safeguards System - Summary of Aging Management Evaluation											
Component Type	**Intended Function**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Programs**	**NUREG - 1801 Volume 2 Line Item**	**Table 1 Item**	**Notes**	**Rev 1 NUREG - 1801 Volume 2 Line Item**	**Rev 1 NUREG - 1801 Volume 1 Table Row (Table # - Row #)**	**Rev 1 NUREG - 1801 Notes**
Containment Spray System Fasteners	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext) Containment Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.A.1-b	3.2.1-17	A			
Containment Spray Pump Bolting	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.A.3-b	3.2.1-17	A			
Containment Spray System Valves Bolting	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext) Containment Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.A.4-b	3.2.1-17	A			
Containment Spray System Valves Header Bolting	Fluid Pressure Boundary	Carbon Steel	Containment Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.A.5-b	3.2.1-15	A			
HPSI, LPSI Pumps Bolting	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.D1.2-b	3.2.1-17	A			
SIRWT HX Bolting	Fluid Pressure Boundary	Carbon Steel	Plant Indoor Air (Ext)	Loss of Material	Boric Acid Corrosion Program	V.D1.6-d	3.2.1-17	A			

Table 3.2.2-1 Engineered Safety Features - Engineering Safeguards System - Summary of Aging Management Evaluation											
Component Type	**Intended Function**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Programs**	**NUREG - 1801 Volume 2 Line Item**	**Table 1 Item**	**Notes**	**Rev 1 NUREG - 1801 Volume 2 Line Item**	**Rev 1 NUREG - 1801 Volume 1 Table Row (Table # - Row #)**	**Rev 1 NUREG - 1801 Notes**
SIRWT Bolting	Fluid Pressure Boundary	Carbon Steel	Atmosphere/ Weather (Ext)	Loss of Material	Boric Acid Corrosion Program	V.D1.8-b	3.2.1-17	A			
HPSI Check Valves, SDC from PCS MOVs	Fluid Pressure Boundary	Cast Austenitic SS	Treated Water (Int)	Cracking	Water Chemistry Program			G, 207	IV.C2-6	1-68	A
					One-Time Inspection Program			G, 207	IV.C2-6	1-68	E
				Reduction of Fracture Toughness	ASME Section XI IWB, IWC, IWD, IWF Inservice Inspection Program	V.D1.1-b	3.2.1-11	E, 209			
HPSI Check Valves	Fluid Pressure Boundary	Cast Austenitic SS	Treated Water (Int)	Loss of Material	Water Chemistry Program			G, 207	IV.C2-6	1-68	A, 2001
					One-Time Inspection Program			G, 207	IV.C2-6	1-68	E, 2001
Hot Leg Injection Check Valves	Fluid Pressure Boundary	Cast Austenitic SS	Treated Water (Int)	Cracking	Water Chemistry Program			G, 207	IV.C2-6	1-68	E
					One-Time Inspection Program			G, 207	IV.C2-6	1-68	E

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HPSI Check Valves Loops 1A, 2A	Fluid Pressure Boundary	Stainless Steel	Treated Water (Int)	Loss of Material	Water Chemistry Program			G, 207	V.D2-23	2-3	A, 2001
					One-Time Inspection Program			G, 207	V.D2-23	2-3	B, 2001

Note 2001: This material and environment combination is shown in GALL as not having the specified AERM. For the purpose of precedent review, Palisades considered Notes A, B, C, or D to apply to those instances where we are managing items which GALL does not indicate need to be managed.