Material		Environment	Aging Effect/ Mechanism	Program
2. Linings	in spe	nt fuel pool cooling and cleanup sy	stem; seals and collars in ventilation systems	
System No	8150	HVAC Containment Building	System (HVAC)	
Elastomers		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Change in Material Properties from Elevated Temperature	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Change in Material Properties from Irradiation Embrittlement	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Cracking from Elevated Temperature	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Cracking from Irradiation Embrittlement	Systems Monitoring Program (Site Specific)
System No	8170	Containment Purge System (	CV PUR)	
Elastomers		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Change in Material Properties from Elevated Temperature	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Change in Material Properties from Irradiation Embrittlement	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Cracking from Elevated Temperature	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Cracking from Irradiation Embrittlement	Systems Monitoring Program (Site Specific)
System No	8180	Rod Drive Cooling System (F	RDSC)	
Elastomers		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Change in Material Properties from Elevated Temperature	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Change in Material Properties from Irradiation Embrittlement	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Cracking from Elevated Temperature	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Cracking from Irradiation Embrittlement	Systems Monitoring Program (Site Specific)
System No	8210	HVAC Auxiliary Building (H	IVAC)	
Elastomers		Indoor - Not Air Conditioned, Borated Water Leakage	Change in Material Properties from Elevated Temperature	Systems Monitoring Program (Site Specific)

<b>Auxiliary Sy</b>	stems
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<u>Material</u>		Environment	Aging Effect/ Mechanism	Program
2. Linings	in spe	ent fuel pool cooling and cleanup s	system; seals and collars in ventilation systems	
Elastomers		Indoor - Not Air Conditioned, Borated Water Leakage	Cracking from Elevated Temperature	Systems Monitoring Program (Site Specific)
System No	8220	HVAC Control Room Area	(HVAC)	
Elastomers		Indoor - Air Conditioned	Change in Material Properties from Elevated Temperature	Systems Monitoring Program (Site Specific)
		Indoor - Air Conditioned	Cracking from Elevated Temperature	Systems Monitoring Program (Site Specific)
System No	8265	HVAC Fuel Handling Build	ing (HVAC)	
Elastomers		Indoor - Not Air Conditioned, Borated Water Leakage	Change in Material Properties from Elevated Temperature	Systems Monitoring Program (Site Specific)
		Indoor - Not Air Conditioned, Borated Water Leakage	Cracking from Elevated Temperature	Systems Monitoring Program (Site Specific)
_		n load handling, chemical and vol tdown cooling systems (older BW)	lume control system (PWR), and reactor water R)	
_		tdown cooling systems (older BW)	R)	
cleanup an	nd shu	tdown cooling systems (older BW)	R)	Fatigue is a TLAA to be evaluated
cleanup an	nd shu	tdown cooling systems (older BW)  Chemical And Volume Cont	R) trol System	
cleanup an System No Carbon Steel	nd shu	Chemical And Volume Control Treated Water (including steam) Treated Water (including steam)	trol System Cracking from Thermal Fatigue Cracking from Thermal Fatigue	Fatigue is a TLAA to be evaluated

System No	4060 Service Water System	ı (SW)	
Carbon Steel	Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
	Outdoor	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
Copper Alloys	Indoor - Not Air Conditioned	Loss of Material from Crevice Corrosion	Systems Monitoring Program (Site Specific)

Auxiliary S	Systems
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Material	Environment	Aging Effect/ Mechanism	Program
_	nents in ventilation systems, diesel f urfaces of carbon steel components	uel oil system, and emergency diesel generator syst	tems;
Copper Alloys	Indoor - Not Air Conditioned	Loss of Material from Pitting Corrosion	Systems Monitoring Program (Site Specific)
System No	4080 Component/Closed Co	oling Water System	
Copper Alloys	Indoor - Not Air Conditioned	Loss of Material from Crevice Corrosion	Preventive Maintenance Program (Site Specific)
	Indoor - Not Air Conditioned	Loss of Material from Pitting Corrosion	Preventive Maintenance Program (Site Specific)
System No	5095 Diesel Generator Syste	m (DIESEL)	
Carbon Steel	Air and Gas	Loss of Material from Crevice Corrosion	One-Time Inspection Program
	Air and Gas	Loss of Material from General Corrosion	One-Time Inspection Program
	Air and Gas	Loss of Material from Pitting Corrosion	One-Time Inspection Program
	Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
	Outdoor	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
System No	5098 Dedicated Shutdown D	viesel Generator (DSD)	
Carbon Steel	Air and Gas	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
	Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
	Indoor - Not Air Conditioned	Loss of Material from MIC	Systems Monitoring Program (Site Specific)
	Outdoor	Loss of Heat Transfer Effectiveness from Fouling of Heat Transfer Surfaces	Systems Monitoring Program (Site Specific)
	Outdoor	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
Copper Alloys	Indoor - Not Air Conditioned	Loss of Material from Crevice Corrosion	Systems Monitoring Program (Site Specific)
	Indoor - Not Air Conditioned	Loss of Material from Pitting Corrosion	Systems Monitoring Program (Site Specific)
	Outdoor	Loss of Material from Crevice Corrosion	Systems Monitoring Program (Site Specific)
	Outdoor	Loss of Material from Pitting Corrosion	Systems Monitoring Program (Site Specific)
System No	5100 Fuel Oil System (FO)		
Carbon Steel	Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)

Material		Environment	Aging Effect/ Mechanism	Program
_		n ventilation systems, diesel fuel oil of carbon steel components	l system, and emergency diesel generator syst	tems;
Carbon Steel		Indoor - Not Air Conditioned, Outdoor	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
		Outdoor	Loss of Material from Crevice Corrosion	Systems Monitoring Program (Site Specific)
		Outdoor	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
		Outdoor	Loss of Material from MIC	Systems Monitoring Program (Site Specific)
		Outdoor	Loss of Material from Pitting Corrosion	Systems Monitoring Program (Site Specific)
Copper Alloys		Outdoor	Loss of Material from Crevice Corrosion	Systems Monitoring Program (Site Specific)
		Outdoor	Loss of Material from Pitting Corrosion	Systems Monitoring Program (Site Specific)
System No	6082	EOF/TSC Security Emergenc	y Diesel Gen. (EOF DG)	
Carbon Steel		Indoor - Not Air Conditioned	Loss of Heat Transfer Effectiveness from Fouling of Heat Transfer Surfaces	Systems Monitoring Program (Site Specific)
		Outdoor	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
System No	6175	Site Fire Protection System (	SFPS)	
Carbon Steel		Outdoor	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
Salvanized Steel	l	Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
System No	6270	Primary And Demineralized V	Water Makeup System (DW)	
Carbon Steel		Outdoor	Loss of Material from General Corrosion	Systems Monitoring Program (Site Specific)
System No	8150	HVAC Containment Building	g System (HVAC)	
Carbon Steel		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from Crevice Corrosion	Preventive Maintenance Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from General Corrosion	Preventive Maintenance Program (Site Specific)
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from Pitting Corrosion	Preventive Maintenance Program (Site Specific)
Copper Alloys		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from Crevice Corrosion	Preventive Maintenance Program (Site Specific)

<b>Auxiliary Systems</b>	
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Material	Environment	Aging Effect/ Mechanism	Program
_	nents in ventilation systems, dies irfaces of carbon steel compone	sel fuel oil system, and emergency diesel generatents	or systems;
Copper Alloys	Indoor - Not Air Conditioned, Conta Borated Water Leakage	ainment Air, Loss of Material from Pitting Corrosion	Preventive Maintenance Program (Site Specific
System No	8210 HVAC Auxiliary B	Building (HVAC)	
Carbon Steel	Indoor - Not Air Conditioned, Borate Leakage	ed Water Loss of Material from General Corrosion	Preventive Maintenance Program (Site Specific
	Indoor - Not Air Conditioned, Borate Leakage	ed Water Loss of Material from MIC	Preventive Maintenance Program (Site Specific
Copper Alloys	Indoor - Not Air Conditioned, Borat Leakage	ed Water Loss of Material from Crevice Corrosion	Preventive Maintenance Program (Site Specific
	Indoor - Not Air Conditioned, Borate Leakage	ed Water Loss of Material from Pitting Corrosion	Preventive Maintenance Program (Site Specific
<b>-</b> D: 10	ual ail tamba in diagal fual ail ava	tone and amongonous discolutions and an areatons	
	·	etem and emergency diesel generator system	
System No	5100 Fuel Oil System (F	O)	Fuel Oil Chemistry Program
System No	·		Fuel Oil Chemistry Program Fuel Oil Chemistry Program
System No	5100 Fuel Oil System (F	CO)  Loss of Material from Crevice Corrosion	Fuel Oil Chemistry Program  Fuel Oil Chemistry Program  Fuel Oil Chemistry Program
System No	5100 Fuel Oil System (F Fuel Oil Fuel Oil	Loss of Material from Crevice Corrosion Loss of Material from General Corrosion	Fuel Oil Chemistry Program
System No Carbon Steel	5100 Fuel Oil System (F Fuel Oil Fuel Oil Fuel Oil	Loss of Material from Crevice Corrosion Loss of Material from General Corrosion Loss of Material from MIC	Fuel Oil Chemistry Program Fuel Oil Chemistry Program
System No Carbon Steel Copper Alloys	Fuel Oil System (Fuel Oil Fuel Oil Fuel Oil Fuel Oil Fuel Oil	Loss of Material from Crevice Corrosion Loss of Material from General Corrosion Loss of Material from MIC Loss of Material from Pitting Corrosion	Fuel Oil Chemistry Program Fuel Oil Chemistry Program Fuel Oil Chemistry Program
System No Carbon Steel Copper Alloys Stainless Steel	Fuel Oil System (Fuel Oil System (Fuel Oil Fuel Oil Fuel Oil Fuel Oil Fuel Oil Fuel Oil	Loss of Material from Crevice Corrosion Loss of Material from General Corrosion Loss of Material from MIC Loss of Material from Pitting Corrosion Loss of Material from MIC Loss of Material from MIC	Fuel Oil Chemistry Program Fuel Oil Chemistry Program Fuel Oil Chemistry Program Fuel Oil Chemistry Program
System No Carbon Steel Copper Alloys Stainless Steel	Fuel Oil System (F Fuel Oil Changers in chemical and volum	Loss of Material from Crevice Corrosion Loss of Material from General Corrosion Loss of Material from MIC Loss of Material from Pitting Corrosion Loss of Material from MIC Loss of Material from MIC	Fuel Oil Chemistry Program Fuel Oil Chemistry Program Fuel Oil Chemistry Program Fuel Oil Chemistry Program
System No Carbon Steel Copper Alloys Stainless Steel  8. Heat ex	Fuel Oil System (F Fuel Oil Changers in chemical and volum	Loss of Material from Crevice Corrosion Loss of Material from General Corrosion Loss of Material from MIC Loss of Material from Pitting Corrosion Loss of Material from MIC Loss of Material from MIC Loss of Material from MIC	Fuel Oil Chemistry Program Fuel Oil Chemistry Program Fuel Oil Chemistry Program Fuel Oil Chemistry Program

Material		Environment	Aging Effect/ Mechanism	Program
13. Closur	e boltii	ng and external surfaces of carbon	steel and low-alloy steel components	
System No	2060	Chemical And Volume Contro	ol System	
Carbon Steel		Indoor - Not Air Conditioned	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	2118	Containment Vapor And Pres	sure Sampling System	
Carbon Steel		Indoor - Not Air Conditioned, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	4060	Service Water System (SW)		
Carbon Steel		Indoor - Not Air Conditioned	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Outdoor, Containment Air, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	4080	Component/Closed Cooling V	Vater System	
Carbon Steel		Indoor - Not Air Conditioned	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	6135	Instrument Air System (IA)		
Carbon Steel		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Outdoor, Containment Air, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	6150	Nitrogen Supply/Blanketing S	System (N2 SUP)	
Carbon Steel		Containment Air, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program

Material		Environment	Aging Effect/ Mechanism	Program
12 Classon	a haldin		ated and law allow steel common ants	
13. Closur	e boitin	ig and external surfaces of carbon	steel and low-alloy steel components	
Carbon Steel		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	6175	Site Fire Protection System (S	SFPS)	
Carbon Steel		Indoor - Not Air Conditioned	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Outdoor, Containment Air, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	6195	Fire Protection CO2 System	(CO2)	
Carbon Steel		Indoor - Not Air Conditioned, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	7110	Spent Fuel Pool Cooling System	em (SFPCS)	
Carbon Steel		Indoor - Not Air Conditioned	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	8010S	Bldg 200: Reactor Containme	nt Building	
Carbon Steel		Borated Water Leaks	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Borated Water Leaks	Loss of Material from General Corrosion	Boric Acid Corrosion Program
System No	8150	HVAC Containment Building	System (HVAC)	
Carbon Steel		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program
System No	8170	Containment Purge System (Containment Purge	CV PUR)	
Carbon Steel		Indoor - Not Air Conditioned, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program

Auxiliar	y Syst	tems					
Material		Environment	Aging Effect/ Mechanism	Program			
13. Closure	13. Closure bolting and external surfaces of carbon steel and low-alloy steel components						
System No	8180	Rod Drive Cooling System (F	RDSC)				
Carbon Steel		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Material from Aggressive Chemical Attack	Boric Acid Corrosion Program			
		Indoor - Not Air Conditioned, Containment Air, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program			
System No	8210	HVAC Auxiliary Building (H	(VAC)				
Carbon Steel		Indoor - Not Air Conditioned, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program			
System No	8265	HVAC Fuel Handling Buildin	g (HVAC)				
Carbon Steel		Indoor - Not Air Conditioned, Borated Water Leakage	Loss of Mechanical Closure Integrity from Loss of Material due to Aggressive Chemical Attack	Boric Acid Corrosion Program			
14. Compo	nents	in or serviced by closed-cycle coolin	ng water system				
System No	2060	Chemical And Volume Contro	ol System				
Carbon Steel		Treated Water (including steam)	Loss of Material from Crevice Corrosion	Closed-Cycle Cooling Water System Program			
		Treated Water (including steam)	Loss of Material from General Corrosion	Closed-Cycle Cooling Water System Program			
		Treated Water (including steam)	Loss of Material from Pitting Corrosion	Closed-Cycle Cooling Water System Program			
Stainless Steel		Treated Water (including steam)	Loss of Material from Crevice Corrosion	Closed-Cycle Cooling Water System Program			
		Treated Water (including steam)	Loss of Material from Pitting Corrosion	Closed-Cycle Cooling Water System Program			
System No	4080	Component/Closed Cooling W	Vater System				
Carbon Steel		Treated Water (including steam)	Loss of Material from Crevice Corrosion	Closed-Cycle Cooling Water System Program			
		Treated Water (including steam)	Loss of Material from General Corrosion	Closed-Cycle Cooling Water System Program			
		Treated Water (including steam)	Loss of Material from Pitting Corrosion	Closed-Cycle Cooling Water System Program			
Stainless Steel		Treated Water (including steam)	Loss of Material from Crevice Corrosion	Closed-Cycle Cooling Water System Program			
		Treated Water (including steam)	Loss of Material from Pitting Corrosion	Closed-Cycle Cooling Water System Program			

Auxiliar	Auxiliary Systems					
Material	Envir	onment	Aging Effect/ Mechanism	Program		
14. Compo	onents in or s	erviced by closed-cycle	cooling water system			
System No	5095	Diesel Generator System	n (DIESEL)			
Carbon Steel	Air and	Gas	Loss of Material from General Corrosion	Closed-Cycle Cooling Water System Program		
	Treated	Water (including steam)	Loss of Material from Crevice Corrosion	Closed-Cycle Cooling Water System Program		
	Treated	Water (including steam)	Loss of Material from General Corrosion	Closed-Cycle Cooling Water System Program		
	Treated	l Water (including steam)	Loss of Material from Pitting Corrosion	Closed-Cycle Cooling Water System Program		
System No	5098	Dedicated Shutdown Di	esel Generator (DSD)			
Carbon Steel	Treated	Water (including steam)	Loss of Material from Crevice Corrosion	Closed-Cycle Cooling Water System Program		
	Treated	Water (including steam)	Loss of Material from General Corrosion	Closed-Cycle Cooling Water System Program		
	Treated	Water (including steam)	Loss of Material from Pitting Corrosion	Closed-Cycle Cooling Water System Program		
System No	6082	EOF/TSC Security Eme	rgency Diesel Gen. (EOF DG)			
Carbon Steel	Treated	Water (including steam)	Loss of Material from Crevice Corrosion	Closed-Cycle Cooling Water System Program		
	Treated	Water (including steam)	Loss of Material from General Corrosion	Closed-Cycle Cooling Water System Program		
	Treated	Water (including steam)	Loss of Material from Pitting Corrosion	Closed-Cycle Cooling Water System Program		
15. Cranes	s including b	ridge and trolleys and r	ail system in load handling system			
System No	8010S01	Bldg 200: Reactor Conta	ainment Building			
Carbon Steel	Contain	nment Air	Loss of Material from General Corrosion	Inspection of Overhead Heavy Load and Light Load H		
System No	8300S36	Bldg 350: Turbine Build	ling			
Carbon Steel	Outdoo	r	Loss of Material from General Corrosion	Inspection of Overhead Heavy Load and Light Load H		
System No	8300S46	Bldgs 215, 220 and 225	: Fuel Handling Building			
Carbon Steel	Indoor -	- Not Air Conditioned	Loss of Material from General Corrosion	Inspection of Overhead Heavy Load and Light Load H		
	Outdoo	r	Loss of Material from General Corrosion	Inspection of Overhead Heavy Load and Light Load H		

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Material	Environment	Aging Effect/ Mechanism	Program
16 Compa	onents in or serviced by open-cy	vela cooling water systems	
10. Compo	ments in or serviced by open-cy	the cooling water systems	
System No	4060 Service Water Sys	stem (SW)	
Aluminum	Raw Water	Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Galvanic Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from MIC	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
Carbon Steel	Raw Water	Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Galvanic Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from General Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from MIC	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
Copper Alloys	Raw Water	Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Galvanic Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from MIC	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
Stainless Steel	Raw Water	Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from MIC	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
System No	4080 Component/Close	d Cooling Water System	
Carbon Steel	Raw Water	Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
	Raw Water	Loss of Material from Galvanic Corrosion	Open-Cycle Cooling Water System Program

Material		Environment	Aging Effect/ Mechanism	Program
16 Compo	nonta	in or serviced by open-cycle co	aling water systems	
•	Hemes		•	
Carbon Steel	Raw Water		Loss of Material from General Corrosion	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from MIC	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
		Treated Water (including steam)	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
		Treated Water (including steam)	Loss of Material from General Corrosion	Open-Cycle Cooling Water System Program
		Treated Water (including steam)	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
Copper Alloys		Raw Water	Loss of Heat Transfer Effectiveness from Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from MIC	Open-Cycle Cooling Water System Program
System No	5095	Diesel Generator System	(DIESEL)	
Carbon Steel		Raw Water	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from Galvanic Corrosion	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from General Corrosion	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from MIC	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
Copper Alloys		Raw Water	Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Heat Transfer Effectiveness from Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from Galvanic Corrosion	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from MIC	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
System No	8150	HVAC Containment Bui	lding System (HVAC)	
Stainless Steel		Raw Water	Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
		Raw Water	Loss of Heat Transfer Effectiveness from Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System Program

Auxiliary	Systems
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Material	Enviro	nment	Aging Effect/ Mechanism	Program
16. Compo	onents in or se	rviced by open-cycle c	ooling water systems	
Stainless Steel	Raw Wa	v 1 v	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
	Raw Wa	ter	Loss of Material from MIC	Open-Cycle Cooling Water System Program
	Raw Wa	ter	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
System No	8210	HVAC Auxiliary Build	ing (HVAC)	
Copper Alloys	Raw Wa	ter	Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
	Raw Wa	ter	Loss of Heat Transfer Effectiveness from Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System Program
	Raw Wa	ter	Loss of Material from MIC	Open-Cycle Cooling Water System Program
System No	8220	HVAC Control Room A	Area (HVAC)	
Stainless Steel	Raw Water		Flow Blockage from Fouling	Open-Cycle Cooling Water System Program
	Raw Wa	ter	Loss of Heat Transfer Effectiveness from Fouling of Heat Transfer Surfaces	Open-Cycle Cooling Water System Program
	Raw Wa	ter	Loss of Material from Crevice Corrosion	Open-Cycle Cooling Water System Program
	Raw Water		Loss of Material from MIC	Open-Cycle Cooling Water System Program
	Raw Wa	ter	Loss of Material from Pitting Corrosion	Open-Cycle Cooling Water System Program
17. Buried	piping and fi	ttings		
System No	4060	Service Water System (	SW)	
Carbon Steel	Buried		Loss of Material from Crevice Corrosion	Buried Piping and Tanks Inspection Program
	Buried		Loss of Material from General Corrosion	Buried Piping and Tanks Inspection Program
	Buried		Loss of Material from MIC	Buried Piping and Tanks Inspection Program
	Buried		Loss of Material from Pitting Corrosion	Buried Piping and Tanks Inspection Program
System No	5098	Dedicated Shutdown D	iesel Generator (DSD)	
Carbon Steel	Buried		Loss of Material from Crevice Corrosion	Buried Piping and Tanks Inspection Program
	Buried		Loss of Material from General Corrosion	Buried Piping and Tanks Inspection Program

Material	Envii	ronment	Aging Effect/ Mechanism	Program
17. Buried	piping and	fittings		
Carbon Steel	Buried		Loss of Material from MIC	Buried Piping and Tanks Inspection Program
	Buried		Loss of Material from Pitting Corrosion	Buried Piping and Tanks Inspection Program
System No	5100	Fuel Oil System (FO)		
Carbon Steel	Buried		Loss of Material from Crevice Corrosion	Buried Piping and Tanks Surveillance Program
	Buried		Loss of Material from General Corrosion	Buried Piping and Tanks Surveillance Program
	Buried		Loss of Material from MIC	Buried Piping and Tanks Surveillance Program
	Buried		Loss of Material from Pitting Corrosion	Buried Piping and Tanks Surveillance Program
System No	6175	Site Fire Protection System	n (SFPS)	
Carbon Steel	Buried		Loss of Material from Crevice Corrosion	Buried Piping and Tanks Inspection Program
	Buried		Loss of Material from General Corrosion	Buried Piping and Tanks Inspection Program
	Buried		Loss of Material from MIC	Buried Piping and Tanks Inspection Program
	Buried		Loss of Material from Pitting Corrosion	Buried Piping and Tanks Inspection Program

#### 18. Components in compressed air system

System No	5095 Diesel Generator	System (DIESEL)	
Carbon Steel	Air and Gas	Loss of Material from General Corrosion	Preventive Maintenance Program (Site Specific)
Copper Alloys	Air and Gas	Cracking from SCC	Preventive Maintenance Program (Site Specific)
	Air and Gas	Loss of Material from Crevice Corrosion	Preventive Maintenance Program (Site Specific)
	Air and Gas	Loss of Material from Pitting Corrosion	Preventive Maintenance Program (Site Specific)
System No	5098 Dedicated Shutde	own Diesel Generator (DSD)	
Carbon Steel	Air and Gas	Loss of Material from Galvanic Corrosion	Preventive Maintenance Program (Site Specific)
	Air and Gas	Loss of Material from General Corrosion	Preventive Maintenance Program (Site Specific)
	Air and Gas	Loss of Material from MIC	Preventive Maintenance Program (Site Specific)

Material	Environment	Aging Effect/ Mechanism	Program
18. Componer	nts in compressed air system		
Copper Alloys	Air and Gas	Loss of Material from Pitting Corrosion	Preventive Maintenance Program (Site Specific)
Stainless Steel	Air and Gas	Cracking from SCC	Preventive Maintenance Program (Site Specific)
	Air and Gas	Loss of Material from Crevice Corrosion	Preventive Maintenance Program (Site Specific)
	Air and Gas	Loss of Material from MIC	Preventive Maintenance Program (Site Specific)
	Air and Gas	Loss of Material from Pitting Corrosion	Preventive Maintenance Program (Site Specific)
19. Componer	nts (doors and barrier penetration	n seals) and concrete structures in fire protection	
System No 6.	Site Fire Protection Syst	em (SFPS)	
Galvanized Steel	Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Fire Protection Program
System No 8.	300S46 Bldgs 215, 220 and 225:	Fuel Handling Building	
Fire Barriers	Indoor - Not Air Conditioned	Cracking from Differential Movement	Fire Protection Program
	Indoor - Not Air Conditioned	Cracking from Vibration	Fire Protection Program
	Indoor - Not Air Conditioned	Delamination and Seperation from Differential Movement	Fire Protection Program
	Indoor - Not Air Conditioned	Delamination and Seperation from Vibration	Fire Protection Program
System No 8.	Bldg 205: Reactor Auxil	iary Building	
Carbon Steel	Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Fire Protection Program
Fire Barriers	Indoor - Not Air Conditioned	Cracking from Differential Movement	Fire Protection Program
	Indoor - Not Air Conditioned	Cracking from Vibration	Fire Protection Program
	Indoor - Not Air Conditioned	Delamination and Seperation from Differential Movement	Fire Protection Program
	Indoor - Not Air Conditioned	Delamination and Seperation from Vibration	Fire Protection Program
	Indoor - Not Air Conditioned	Loss of Material from Abrasion	Fire Protection Program
	Outdoor	Cracking from Differential Movement	Fire Protection Program
		One of the section of Mills and the sec	Fire Ductostica Ducence
	Outdoor	Cracking from Vibration	Fire Protection Program

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Material	Environment	Aging Effect/ Mechanism	Program	
19. Compo	onents (doors and barrier pene	tration seals) and concrete structures in fire protec	ction	
Fire Barriers	Outdoor	Delamination and Seperation from Vibration	Fire Protection Program	
	Outdoor	Loss of Material from Abrasion	Fire Protection Program	
20. Compo	onents in water-based fire prot	ection		
System No	6175 Site Fire Protecti	on System (SFPS)		
Carbon Steel	Raw Water	Flow Blockage from Fouling	Fire Water System Program	
	Raw Water	Loss of Material from Crevice Corrosion	Fire Water System Program	
	Raw Water	Loss of Material from Galvanic Corrosion	Fire Water System Program	
	Raw Water	Loss of Material from General Corrosion	Fire Water System Program	
	Raw Water	Loss of Material from MIC	Fire Water System Program	
	Raw Water	Loss of Material from Pitting Corrosion	Fire Water System Program	
Copper Alloys	Raw Water	Flow Blockage from Fouling	Fire Water System Program	
	Raw Water	Loss of Material from Crevice Corrosion	Fire Water System Program	
	Raw Water	Loss of Material from Galvanic Corrosion	Fire Water System Program	
	Raw Water	Loss of Material from MIC	Fire Water System Program	
	Raw Water	Loss of Material from Pitting Corrosion	Fire Water System Program	
Stainless Steel	Raw Water	Flow Blockage from Fouling	Fire Water System Program	
	Raw Water	Loss of Material from Crevice Corrosion	Fire Water System Program	
	Raw Water	Loss of Material from MIC	Fire Water System Program	
	Raw Water	Loss of Material from Pitting Corrosion	Fire Water System Program	
System No	8010S01 Bldg 200: Reacto	or Containment Building		
Carbon Steel	Containment Air	Loss of Material from General Corrosion	Fire Water System Program	
System No	8320S01 Bldg 205: Reacto	or Auxiliary Building		
Carbon Steel	Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Fire Water System Program	

Auxiliary Systems								
Material		Environment	Aging Effect/ Mechanism	Program				
22. Tanks	22. Tanks in diesel fuel oil system							
System No	5100	Fuel Oil System (FO)						
Carbon Steel		Indoor - Not Air Conditioned	Loss of Material from General Corrosion	Above Ground Carbon Steel Tanks Program				
		Indoor - Not Air Conditioned, Outdoor	Loss of Material from General Corrosion	Above Ground Carbon Steel Tanks Program				
		Outdoor	Loss of Material from General Corrosion	Above Ground Carbon Steel Tanks Program				

#### 23. Closure bolting

System No	2060 Chemical And Volume C	Chemical And Volume Control System			
Carbon Steel	Indoor - Not Air Conditioned	Loss of Mechanical Closure Integrity from SCC	Bolting Integrity Program		

# 24. Components (aluminum bronze, brass, cast iron, cast steel) in open-cycle and closed-cycle cooling water systems, and ultimate heat sink

System No	4060	Service Water System (S	SW)		
Carbon Steel	Raw \	Vater	Loss of Material from Selective Leaching	Selective Leaching of Materials Program	
Copper Alloys	Raw Water		Loss of Material from Selective Leaching	Selective Leaching of Materials Program	
System No	4080 Component/Closed Cooli		ling Water System		
Copper Alloys	Treate	ed Water (including steam)	Loss of Material from Selective Leaching	Closed-Cycle Cooling Water System Program	
System No	5095 Diesel Generator System (DIESEL)				
Carbon Steel	Raw \	Vater	Loss of Material from Selective Leaching	Selective Leaching of Materials Program	
	Treate	ed Water (including steam)	Loss of Material from Selective Leaching	Closed-Cycle Cooling Water System Program	
Copper Alloys	Raw Water		Loss of Material from Selective Leaching	Selective Leaching of Materials Program	
	Treate	ed Water (including steam)	Loss of Material from Selective Leaching	Closed-Cycle Cooling Water System Program	
System No	5098 Dedicated Shutdown Diesel Generator (DSD)				
Copper Alloys	Treate	ed Water (including steam)	Loss of Material from Selective Leaching	Closed-Cycle Cooling Water System Program	

#### Auxiliary Systems

Raw Water

Copper Alloys

Material	En	rironment	Aging Effect/ Mechanism	Program
_	•	minum bronze, brass, cas ltimate heat sink	t iron, cast steel) in open-cycle and closed-cy	ycle cooling
System No	6082	EOF/TSC Security Eme	rgency Diesel Gen. (EOF DG)	
Copper Alloys	Trea	ted Water (including steam)	Loss of Material from Selective Leaching	Closed-Cycle Cooling Water System Program
System No	Site Fire Protection System (SFPS)			
Carbon Steel	Burie	ed	Loss of Material from Selective Leaching	Selective Leaching of Materials Program

Loss of Material from Selective Leaching

Selective Leaching of Materials Program