

Open Item 3.0-1 Tracking Sheet

Revisions to FCS LRA

TABLE	CHANGE	REASON FOR CHANGE	REVIEWER	IS CHANGE ACCEPTABLE?	COMMENTS
2.2-1	161 KV substation equipment brought into scope	Response to RAI 2.5-1	Chopra Cullison		
2.2-1	345 kv substation equipment brought into scope	Response to RAI 2.5-1	Chopra Cullison		
2.2-1	Revised SG FW blowdown to SG blowdown and brought into scope	Response to POI-1(d)	Burton Cullison		Don't understand the second superscript (OPPD) Superscript (1) is link to endnote of table. Second superscript (2) is link to footnote no.1, which should be renumbered to number 2.

2.2-1	SBO restoration substation equipment brought into scope	Response to RAI 2.5-1 and POI-6(a)	Chopra Cullison		
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2.2-1	Turbine Plant Cooling System brought into scope	Response to POI-1(a)	Cullison		<p>Other systems brought into scope as a result of POI-1(a) aren't identified as being within scope in Table 2.2-1 (e.g., aux steam and condensate return, chemical feed, and potable water/service water)</p> <p>(OPPD) OPPD will revise Table 2.2-1 to include Auxiliary Steam (includes Condensate Return), Secondary Side Chemical Feed, and Potable Water/service water systems in scope by changing "no" to "yes" in "Within Scope of</p>
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2.3.1.1-1	<p>Added link 3.1.1.01 to following components: CSB, core support ring, CSB snubber spacer block, ICI support plate & gusset, instrument tube and support. Deleted 3.1.1.01 from ICI guide tube and supports, thermal shield, and thermal shield-positioning pin and shim</p>	<p>AMR Item 3.1.1.01 was inadvertently omitted for CSB, core support ring, CSB snubber spacer block, ICI support plate & gusset, instrument tube and support. They are included in AMR Groups within the AMR Reports that call for Fatigue to be an AERM.</p> <p>AMR Item 3.1.1.01 was deleted for the ICI guide tube and supports, thermal shield, and thermal shield-positioning pin and shim because the AMR for RVI prepared by CE for the CEOG did not identify Fatigue as an AERM.</p>	Elliot		
2.3.1.1-1	<p>Added links 3.1.1.08 and 3.1.3.01 to thermal shield-positioning pin and shim</p>	<p>AMR Item 3.1.1.08 was inadvertently omitted from these components and was added in for consistency with the AMR of similar components and with the Discussion provided in Item 3.1.1.08.</p> <p>AMR Item 3.1.3.01 was inadvertently omitted from the submittal. 3.1.3.01 and 3.1.3.02 are meant to go together for GALL Report consistency.</p>	Elliot		

2.3.1.2-1	Deleted link 3.1.1.25 from pzs spray and surge nozzle thermal sleeves	AMR Item 3.1.1.25 was removed as a link for these components because it was redundant to AMR Item 3.1.1.11, which specifically addresses Alloy 600 pressurizer sleeves.	Elliot		
2.3.1.2-1	Revised 3.1.2.02 to 3.1.2.15 for pzs vessel welds.	AMR Item 3.1.2.02 was incorrect since it applies to Alloy 600 components. The pressurizer vessel and welds are low alloy steel, which AMR Item 3.1.2.15 addresses.	Elliot		
2.3.1.2-1	Replaced 3.1.1.25 with 3.3.3.01 for RCP seal water cooler tubes	It was determined after LRA submittal that the RCP seal water cooler tubes are not included in the ISI program. Because they are SS HXs in a borated treated water environment, AMR Item 3.3.3.01 applied.	Elliot		
2.3.1.2-1	Replaced 3.1.2.04 with 3.1.1.33 for SG primary head (cladding).	Response to RAI 3.1.2-1	Elliot		
2.3.1.2-1	Deleted 3.1.2.07 from SG tube plugs	Response to RAI B.2.9-2	Elliot Khan		

2.3.1.2-1	Added 3.1.2.06. Deleted 3.4.1.02 and 3.4.1.05 from SG blowdown nozzles	Responses to RAIs 3.1-1 and 2.5-1, and POI-6(a)	Elliot Chopra		(OPPD) Corrected footnote reference to RAI 2.5-1 and POI- 6(a). Footnote '3' should be '7.'
2.3.1.3-1	Replaced 3.1.1.25 with 3.1.1.09 for Keyways and core barrel support ledge	AMR Item 3.1.1.09 is a better fit for these components than AMR Item 3.1.1.25 since it specifically addresses the core barrel support ledge (core support pads) and is specific to Alloy 600. Additionally, these components are included in the Alloy 600 Program.	Elliot		
2.3.1.3-1	Added heat transfer, 3.3.3.13, and 3.3.3.15 to "Pipe & Fittings, CEDM Housing"	Responses to RAI 2.3.3.16-2 and POI-1(a)	Elliot Bailey Li Jones Cullison Razzaq ue		(OPPD) Corrected footnote reference to POI 1(a). Only RAI 2.3.3.16-2 applies. Footnote '4' should be '8.'
2.3.2.1-1	Deleted 3.2.1.01 from "Heat exchanger"	This was an incorrect link for this component. AMR Item 3.2.1.01 applies to fatigue of ESF pipes, valves, and fittings only. It does not include HXs and Fatigue is not identified as an AERM for ESF HXs in the GALL Report.	Lee		

2.3.2.1-1	Deleted 3.3.2.17 and 3.3.2.18 from "Pipes & Fittings"	AMR Items 3.3.2.17 and 3.3.2.18 apply to Brass and Brass, Copper Alloy HXs, respectively. The links were included for these Safety Injection/Core Spray "Pipes & Fittings" in error.	Lee		
2.3.2.1-1	Deleted 3.2.2.07 from "valve bodies"	AMR Item 3.2.2.07 addresses carbon steel valves in a dry air/gas environment. There are no CS valves in Safety Injection/Core Spray. All system valves are SS. The link was made in error.	Lee		
2.3.2.2-1	Added 3.3.2.74 to "heat exchanger"	This link was inadvertently omitted for the demineralized water heat exchangers that have been included under this system. The link addresses cracking of SS heat exchanger components in closed cycle cooling water and provides for aging management with the Chemistry and Cooling Water Corrosion Programs.	Lee Bailey Li		
2.3.2.2-1	Added 3.3.2.78 to "pipes & fittings"	Response to RAI 2.3.3.8-1	Jackson Lee Bailey Li		
2.3.2.2-1	Added 3.2.2.07 to "Primary containment penetrations"	This addition was made to address the inside of sealed carbon steel electrical penetrations enclosures. There are no aging effects.	Lee		

2.3.2.2-1	Added 3.2.2.07 and 3.3.2.78 to “valve bodies”	Response to RAI 2.3.3.8-1. 3.1.2-1 This was added for the drain valves on the Safety Injection penetration enclosures. There are no internal aging effects.	Lee Jackson Bailey Li		(OPPD) Corrected footnote reference. Only RAI 2.3.3.8-1 applies. Footnote ‘5’ should be ‘9.’
2.3.3.1-1	Changed 3.3.2.64 to 3.3.2.75 for “bolting”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	(OPPD) Note: this change is in numerous locations and will be annotated in the reason for change column as a “ Duplicate Clarification ”
2.3.3.1-1	Changed 3.3.1.08 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for “filter/strainers	Response to RAI 3.3.1-15 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		
2.3.3.1-1	Deleted 3.3.1.03. Added 3.3.2.50. Changed 3.3.1.08 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for “flow element/orifice”	Response to RAI B.2.9-2 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li Khan		

2.3.3.1-1	Deleted 3.4.1.10. Changed 3.3.2.64 to 3.3.2.75 for "heat exchanger"	Response to RAI 3.3-1 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		
2.3.3.1-1	Deleted 3.3.1.03. Changed 3.3.1.08 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for "ion exchangers"	AMR Item 3.3.1.03 was incorrectly included since this component will not experience cumulative fatigue; therefore, this AMR Link was deleted. Response to RAI B.2.9-2 3.3.1-15 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3.1-15. Footnote '6' should be '10.'
2.3.3.1-1	Added 3.3.2.70. Deleted 3.3.3.04. Changed 3.3.1.08 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for "pipe, fittings, & tubing"	Link to 3.3.2.70 was inadvertently omitted in the April 2002 LRA. This link correctly associates SS pipe with H ₂ environment to AMR Item 3.3.2.70. Responses to RAIs 3.3.3-3 and 3.3.1-15 B.2.9-2 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3.1-15. Footnote '6' should be '10.'
2.3.3.1-1	Change 3.3.2.64 to 3.3.2.75 for "pump casings"	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	

2.3.3.1-1	Added 3.3.3.01. Deleted 3.3.1.08. Changed 3.3.2.64 to 3.3.2.75 for “tanks”	Response to RAI B-2.9-2 3.3.1-15 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3.1-15. Footnote ‘6’ should be ‘10.’
2.3.3.1-1	Added new line item “transmitter/element ”	Flow element was originally screened as active; however, it is passive and has a pressure boundary function. Therefore; it was added to scope with the appropriate AMR links.	Bailey Li		
2.3.3.1-1	Added 3.3.3.07 and 3.3.3.09. Deleted 3.3.3.04. Changed 3.3.1.08 to 3.3.3.01, 3.4.1.02 to 3.3.3.03, and 3.3.2.64 to 3.3.2.75 for “valve bodies”	Added 3.3.3.07 because the material types for these valves is not included in GALL AMR Item 3.3.1.05.; however, they are managed by the same AMP. Added 3.3.3.09 because the material types for these valves is not included in GALL AMR Item 3.3.1.13.; however, they are managed by the same AMP. Response to RAIs 3.3.1-15, 3.3-1 and 3.3.3-3 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		(OPPD) Footnote ‘6’ should be ‘10,’ footnote ‘7’ should be ‘11,’ and footnote ‘8’ should be ‘12.’

2.3.3.2-1	Changed 3.3.2.64 to 3.3.2.75 for "bolting"	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.2-1	Changed 3.2.1.10 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for "filter/strainer"	Response to RAI 3.3-1 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		
2.3.3.2-1	Added 3.3.1.05 and 3.3.2.74. Deleted 3.3.1.08 and 3.3.1.14. Changed 3.2.1.10 to 3.3.3.01, 3.4.1.10 to 3.2.1.09, and 3.3.2.64 to 3.3.2.75 for "heat exchanger"	Added ARM Item 3.3.1.05 which was inadvertently omitted from the April 2002 submittal. Added 3.3.2.74 to manage "Cracking" as an AERM for this material and environment. AMR Item 3.3.1.08 is CVCS HX specific and was incorrectly referenced here; therefore, it was deleted. AMR Item 3.3.1.14 was deleted and the link to AMR Item 3.2.1.09 (per the RAI response) was chosen because it matches GALL Item VII.3A.4 for stainless steel. Response to RAI 3.3-1 2.3.3.8-4 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3-1. Footnote '9' should be '13.'

2.3.3.2-1	Changed 3.2.1.10 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for "ion exchanger"	Response to RAI 2.3.3.8-1 3.3-1 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3-1. Footnote '9' should be '13.'
2.3.3.2-1	Changed 3.2.1.10 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for "pipes & fittings"	Response to RAI 2.3.3.8-1 3.3-1 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3-1. Footnote '9' should be '13.'
2.3.3.2-1	Changed 3.2.1.10 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for "pump casings"	Response to RAI 2.3.3.8-1 3.3-1 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3-1. Footnote '9' should be '13.'
2.3.3.2-1	Changed 3.2.1.10 to 3.3.3.01 and 3.3.2.64 to 3.3.2.75 for "valve bodies"	Response to RAI 2.3.3.8-1 3.3-1 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li Jackson		(OPPD) Corrected footnote reference to RAI 3.3-1. Footnote '9' should be '13.'

2.3.3.3-1	Changed 3.3.2.64 to 3.3.2.75 for “pipes & fittings”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.3-1	Added new component “mechanical function unit”	This component was inadvertently omitted from the April 2002 submittal.	Bailey Li		
2.3.3.4-1	Changed 3.3.2.64 to 3.3.2.75 for “bolting”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.4-1	Deleted 3.3.3.05 and 3.3.1.05. Added explanation on use of PS/PMP for “hose”	These components were inadvertently linked to AMR tables when in fact they are replaced based on condition.	Bailey Li		
2.3.3.4-1	Deleted 3.3.3.05 and 3.3.1.05. Added explanation on use of PS/PMP for “hose coupling”	These components were inadvertently linked to AMR tables when in fact they are replaced based on condition.	Bailey Li		
2.3.3.4-1	Added 3.3.3.07 for “pump casings”	Added Item 3.3.3.07 because the material type for these pump casings is not included in the linked GALL AMR Item 3.3.1.05.; however, they are managed by the same AMP.	Bailey Li		
2.3.3.4-1	Added 3.3.2.32 for “tanks”	3.3.2.32 was inadvertently omitted as a link for coated carbon steel tanks with a fuel oil environment.	Bailey Li		

2.3.3.4-1	Changed 3.3.2.64 to 3.3.2.75 for “tubing”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.4-1	Changed 3.3.2.64 to 3.3.2.75 for “valve bodies”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.5-1	Added 3.3.2.87. Deleted 3.3.3.06 for “pump casings”	Pump casing are cast iron, not carbon steel; therefore, AMR link to 3.3.3.06 was incorrect. Correct AMR Link is to 3.3.2.87.	Bailey Li		
2.3.3.5-1	Added 3.3.2.86. Deleted 3.3.3.06 for “tanks”	Tanks are coated carbon steel, not carbon steel; therefore, AMR link to 3.3.3.06 was incorrect. Correct AMR Link is to 3.3.2.86.	Bailey Li		
2.3.3.5-1	Changed 3.3.2.64 to 3.3.2.75 for “valve bodies”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.6-1	Added 3.3.2.30. Changed 3.3.2.64 to 3.3.2.75 for “pipes & fittings”	Some components in this Component Type are subject to selective leaching; therefore, this AMR link was added. 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		
2.3.3.6-1	Changed 3.3.1.05 to 3.3.3.07 for “pump casings”	Added 3.3.3.07 because the material types for these pump casings is not included in GALL AMR Item 3.3.1.05.; however, they are managed by the same AMP.	Bailey Li		

2.3.3.7-1	Changed 3.3.2.64 to 3.3.2.75 for "bolting"	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.8-1	Changed 3.3.1.07 to 3.3.1.05 for "accumulators"	3.3.1.07 was an incorrect AMR item for these components in this environment. Corrected AMR Link to 3.3.1.05	Bailey Li		
2.3.3.8-1	Changed 3.3.2.71 to 3.3.2.75 for "tubing"	AMR Item 3.3.2.71 was inadvertently duplicated for the "Tubing" Component Type. Item 3.3.2.71 is for the internal aging management of instrument air in SS tubing. The second entry was meant to be for external aging management of SS tubing. It was, therefore, changed to AMR Item 3.3.2.75.	Bailey Li		
2.3.3.8-1	Changed 3.3.2.71 to 3.3.2.75 for "valve body"	AMR Item 3.3.2.71 was inadvertently duplicated for the "Valve Body" Component Type. Item 3.3.2.71 is for the internal aging management of instrument air in SS valves. The second entry was meant to be for external aging management of SS valves. It was, therefore, changed to AMR Item 3.3.2.75.	Bailey Li		
2.3.3.10-1	Added 3.3.3.09 for "bolting"	Added 3.3.3.09 to include galvanized steel bolting material which is not included in the linked GALL AMR Item 3.3.1.13.	Bailey Li		

2.3.3.10-1	Changed 3.1.3.13 to 3.3.3.09 for "duct"	Added 3.3.3.09 to include galvanized steel ducting material which is not included in the linked GALL AMR Item 3.3.1.13.	Bailey Li		(OPPD) Note: 3.1.3.13 should actually be 3.3.1.13 as per April 2002 submittal
2.3.3.10-1	Changed 3.1.3.13 to 3.3.3.09 for "damper"	Added 3.3.3.09 to include galvanized steel damper material which is not included in the linked GALL AMR Item 3.3.1.13.	Bailey Li		(OPPD) Note: 3.1.3.13 should actually be 3.3.1.13 as per April 2002 submittal
2.3.3.10-1	Added 3.3.2.01 and 3.3.2.17. Deleted 3.3.3.09 for "heat exchangers"	<p>Response to RAI 2.3.3.10-1</p> <p>Added 3.3.2.17 to include AERM of cracking. This AMR Item was inadvertently omitted from the April 2002 submittal.</p> <p>Added 3.3.2.84 to include AERM of selective leaching. This AMR Item was inadvertently omitted from the April 2002 submittal.</p> <p>The deletion of 3.3.3.09 is incorrect. This AMR Link is correct and should remain in the table.</p> <p>The heat exchangers contain galvanized steel which is subject to boric acid corrosion.</p>	Bailey Li Forrest		

2.3.3.10-1	Added 3.3.3.10 for "valve bodies"	Added 3.3.3.10 to include AERM for the cast iron valve bodies. Cast iron is not in the linked GALL AMR Item 3.3.1.05, but it has the same aging effects; therefore, this link was added.	Bailey Li		
2.3.3.10-1	Changed 3.1.3.13 to 3.3.1.13 for "pipes & fittings"	Response to RAI 3.3-4 2.3.3.10-1	Bailey Li Forrest		(OPPD) Corrected footnote reference to RAI 2.3.3.10-1 for footnote 14.
2.3.3.10-1	Deleted valve operators	Response to RAI 3.3-1-15 3.3-1	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3-1. Footnote '10' should be '15.'
2.3.3.11-1	Added 3.3.3.09 to "blower and fan housings"	Added 3.3.3.09 to include galvanized steel fan housing material which is not included in the linked GALL AMR Item 3.3.1.13.	Bailey Li		
2.3.3.11-1	Added 3.3.3.09 to "bolting"	Added 3.3.3.09 to include galvanized steel bolting material which is not included in the linked GALL AMR Item 3.3.1.13.	Bailey Li		

2.3.3.11-1	Added 3.3.3.09 to “filter/strainer housings”	Added 3.3.3.09 to include galvanized steel filter/strainer housing material which is not included in the linked GALL AMR Item 3.3.1.13.	Bailey Li		
2.3.3.11-1	New component “flow element housing”	This component type was inadvertently omitted from the April 2002 submittal.	Bailey Li		
2.3.3.11-1	Added 3.3.1.05. Deleted 3.3.2.48 and 3.3.3.10 for “duct”	Added 3.3.1.05 because this AMR Link replaces redundant AMR links 3.3.2.48 and 3.3.3.10. Deleted 3.3.2.48 and 3.3.3.10 because the AERMs and AMP are a duplicate of 3.3.1.05.	Bailey Li		
2.3.3.11-1	Added 3.3.1.05 for “valve bodies”	Added 3.3.1.05 since this AMR Link was inadvertently omitted from the April 2002 submittal.	Bailey Li		
2.3.3.12-1	Added new component “fire blocking damper”	This component type was inadvertently omitted from the April 2002 submittal.	Bailey Li		
2.3.3.12-1	Added 3.3.2.30 and 3.3.3.10 to “heat exchanger”	Added AMR Links to 3.3.2.30 and 3.3.3.10 for the cast iron heat exchanger components subject to selective leaching and LOM. These AMR Links were inadvertently omitted from the April 2002 submittal.	Bailey Li		

2.3.3.12-1	Deleted 3.3.2.91 from “pipes & fittings”	Deleted 3.3.2.91 because it was determined that this AERM does not apply to this component type and environment.	Bailey Li		
2.3.3.12-1	Added 3.3.2.30 and 3.3.2.40 to “valve bodies”	Added AMR Links to 3.3.2.30 and 3.3.2.40 since these AMR Links were inadvertently omitted from the April 2002 submittal.	Bailey Li		
2.3.3.14-1	Added 3.3.1.13 to “bolting”	Boric acid corrosion is a potential AERM because these components are in the Auxiliary Building in the vicinity of systems containing boric acid; therefore, added AMR Link to 3.3.1.13.	Bailey Li		
2.3.3.14-1	Added 3.3.1.05, 3.3.1.11, 3.3.1.13, and 3.3.3.11 to “filters/strainers”	Responses to RAIs 2.3.3.14-2 and 3.3.3-3 Boric acid corrosion is a potential AERM because these components are in the Auxiliary Building in the vicinity of systems containing boric acid; therefore, added AMR Link to 3.3.1.13.	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote ‘12’ should be ‘16.’
2.3.3.14-1	Added 3.3.3.11 to “flow element/orifice”	Response to RAI 3.3.3-3 2.3.3.14-2	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote ‘12’ should be ‘16.’

2.3.3.14-1	Added 3.3.3.11 to "FP sprinkler/spray nozzle"	Response to RAI 3-3-3-3 2.3.3.14-2	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote '12' should be '16.'
2.3.3.14-1	Added 3.3.1.13, 3.3.2.27, 3.3.2.47, and 3.3.3.11. Deleted 3.3.1.06. Changed 3.3.2.64 to 3.3.2.75 for "pipes & fittings"	Boric acid corrosion is a potential AERM because these components are in the Auxiliary Building in the vicinity of systems containing boric acid; therefore, added AMR Link to 3.3.1.13. Response to RAI 3-3-3-3 2.3.3.14-2 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote '12' should be '16.'
2.3.3.14-1	Deleted 3.3.2.73 and 3.3.2.75 from "pressure vessels"	Deleted these two AMR Items from Component Type "Pressure Vessel" because they were associated with the RCP Lube Oil Collection Tanks. These tanks were relocated to new Component Type "Tanks"	Bailey Li		

2.3.3.14-1	Added 3.3.1.05, 3.3.2.27, 3.3.2.30, 3.3.2.93, and 3.3.3.11 for “pump casings”	3.3.1.05 was inadvertently omitted from the April 2002 submittal. Response to RAI 3.3.3-3 2.3.3.14-2	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote ‘12’ should be ‘16.’
2.3.3.14-1	Added 3.3.3.11. Changed 3.3.2.10 to 3.3.2.40 for “switch/bistable housing”	Response to RAI 3.3.3-3 2.3.3.14-2	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote ‘12’ should be ‘16.’
2.3.3.14-1	Added new component “tanks”	Response to RAI 3.3.3-3 2.3.3.14-2	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote ‘12’ should be ‘16.’
2.3.3.14-1	Added 3.3.2.03, 3.3.2.30, 3.3.2.95, and 3.3.3.11. Deleted 3.3.2.10 from “valve bodies”	Response to RAI 3.3.3-3 2.3.3.14-2	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote ‘12’ should be ‘16.’

2.3.3.15-1	Deleted 3.3.2.77. Changed 3.3.1.05 to 3.3.3.07 for “filters/strainers”	Response to RAI 3.3.2-1 Change from AMR Item 3.3.1.05 to 3.3.3.07 provides clarification of material/component type that is not in GALL AMR Item 3.3.1.05, but has the same AERMs and AMPs.	Bailey Li		
2.3.3.15-1	Changed 3.3.2.64 to 3.3.2.75 for “indicator/recorder (sight glass)”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.15-1	Changed 3.3.2.64 to 3.3.2.75 for “orifice plate”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.15-1	Changed 3.3.2.64 to 3.3.2.75 for “pipes & fittings”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.15-1	Deleted 3.3.2.95 from “traveling screen frame”	AMR Item 3.3.2.95 was redundant to AMR Item 3.3.3.14 with the exception of the AMP. Item 3.3.2.95 credited the PS/PM Program and Item 3.3.3.14 credited the Cooling Water Corrosion Program. Item 3.3.3.14 is the correct link so Item 3.3.2.95 was deleted from this table. Additionally, Item 3.3.2.95 in Table 3.3-2 was replaced with a new AMR Item. See that discussion below.	Bailey Li		

2.3.3.15-1	Added 3.3.1.05, 3.3.1.13, 3.3.3.07, 3.3.3.09. Deleted 3.3.3.10 from “valve bodies”	<p>The links to AMR Items 3.3.1.05, 3.3.1.13, 3.3.3.07, and 3.3.3.09 were inadvertently excluded from this component type.</p> <p>The link to GALL AMR Item 3.3.1.05 ensures AERMs for CS material in an ambient air environment are managed.</p> <p>The link to AMR Item 3.3.3.07 ensures AERMs for other similar materials in an ambient air environment not listed in GALL AMR Item 3.3.1.05 are also managed.</p> <p>The link to GALL AMR Item 3.3.1.13 ensures boric acid corrosion is managed for CS valve material potentially susceptible to borated water leakage and the link to AMR Item 3.3.3.09 includes other similar valve body materials not included in GALL AMR Item 3.3.1.13.</p> <p>Deleted 3.3.3.10 because the PS/PM Program is not used for valves in this system and ambient air environment.</p>	Bailey Li		
2.3.3.16-1	Changed 3.3.2.64 to 3.3.2.75 for “bolting”	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	

2.3.3.16-1	Changed 3.3.2.64 to 3.3.2.75 for "flow element/orifice"	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.16-1	Deleted 3.3.2.41 from "heat exchanger"	Deleted AMR Item 3.3.2.41 since it duplicated AMR Item 3.3.2.17 following the addition of "copper alloy" in the Item 3.3.2.17 Material column. The AMPs are the same for both AMR Items.	Bailey Li		
2.3.3.16-1	Changed 3.3.2.64 to 3.3.2.75 for "pipes & fittings"	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.16-1	Added 3.3.2.25. Changed 3.3.2.64 to 3.3.2.75 for "valve bodies"	This link was inadvertently omitted from the April 2002 submittal. There are no AERMs associated with this material and environment. 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		
2.3.3.17-1	Deleted water suppression support function for bolting	Response to POI-10(d) and RAs 2.3.3.10-1 and 3.3.1-12	Bailey Li		(OPPD) Corrected footnote reference to POI-10(d) only. Footnote '14' should be '18.'

2.3.3.17-1	Changed 3.3.2.64 to 3.3.2.75. Deleted water suppression support function and 3.3.2.22 for pipes and fittings	Response to POI-10(d) Deleted link to AMR Item 3.3.2.22 since the component type in this environment is inaccessible (see response to POI-10(d). 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		
2.3.3.17-1	Deleted water suppression support function and 3.3.2.64 for valve bodies	Response to POI-10(d) 3.3.2.64 is redundant to 3.3.2.75.	Bailey Li		
2.3.3.17-1	Removed component "pump casing"	RAIs 2.3.3.10-1 and 3.3.1-12	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.3.1-12.
2.3.3.18-1	Changed 3.3.2.64 to 3.3.2.75 for bolting.	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.18-1	Changed 3.3.2.64 to 3.3.2.75 for pipes & fittings	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.18-1	Changed 3.3.2.64 to 3.3.2.75 for valve bodies	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	

2.3.3.19-1	Added 3.2.1.09 and 3.3.2.39. Deleted heat transfer, 3.3.1.03, 3.3.2.18, 3.3.2.41, and 3.3.3.08 from "heat exchanger"	<p>Added AMR Link to 3.2.1.09 which was inadvertently omitted from the April 2002 submittal.</p> <p>Replaced link 3.3.2.18 with duplicate link 3.3.2.39 and deleted the link to 3.3.2.18.</p> <p>RAI 2.3.3.19-1</p> <p>Deleted 3.3.1.03 since this AMR link was in error.</p> <p>Deleted 3.3.2.41 because the HX tubes are copper, not copper alloy; therefore, cracking is not an AERM.</p> <p>Deleted 3.3.3.08 because it was a duplicate entry to AMR Item 3.2.1.09 for carbon steel HX components.</p>	Bailey Li		<p>(OPPD) Added AMR link 3.2.1.09 and 3.3.2.39 in "Change" column. These changes were not included in this matrix table as provided by the NRC.</p> <p>(OPPD) Added "RAI 2.3.3.19-1" in "Reason for Change" column. This change was not included in this matrix table as provided by the NRC.</p>
2.3.3.19-1	Changed 3.3.2.64 to 3.3.2.75 for pipes & fittings	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.19-1	Changed 3.3.2.64 to 3.3.2.75 for valve bodies	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.20-1	Changed 3.3.2.64 to 3.3.2.75 for bolting	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	

2.3.3.20-1	Changed 3.3.2.64 to 3.3.2.75 for filters/strainers	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.20-1	Changed 3.3.2.64 to 3.3.2.75 for pipes & fittings	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.20-1	Added 3.3.2.75 for pressure vessel	Response to RAI 2.3.3.20-1 and POI-3(c)	Bailey Li Cullison		
2.3.3.20-1	Changed 3.3.2.64 to 3.3.2.75 for pump casings	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	
2.3.3.20-1	Added new component "transmitter/element"	This component type was inadvertently omitted from the April 2002 submittal. The reason for only one AMR Link is because the AMR Item includes both internal and external environment for aluminum in ambient air.	Bailey Li		
2.3.3.20-1	Changed 3.3.2.64 to 3.3.2.75 for valve bodies	3.3.2.64 is redundant to 3.3.2.75.	Bailey Li	YES	

2.3.4.1-1	Deleted 3.4.1.05 from bolting	The AERM identified in AMR Item 3.4.1.05 is included in AMR Item 3.4.1.08 and this bolting is included in the Bolting Integrity Program; therefore, credit did not have to be taken for the General Corrosion of External Surfaces Program that applies to AMR Item 3.4.1.05.	Rajan		
2.3.4.2-1	Deleted 3.4.1.13 from pump casings	This link was removed because there are no borated water systems in the space where the AFW pumps are located.	Rajan		
2.3.4.2-1	Added new component "transmitter/element"	This was added for the thermowell on the Emergency Feedwater Storage Tank. It is a SS thermowell; therefore the link provided to AMR Item 3.4.1.02 is in error. AMR Item 3.4.2.09 is the correct link and should be the only link.	Rajan		
2.3.4.2-1	Deleted 3.4.1.13 from turbine casing	This link was removed because there are no borated water systems in the space where the AFW pumps are located.	Rajan		

2.3.4.2-1	Added 3.4.2.04 to valve bodies	Selective leaching of these two copper alloy valves (the steam driven AFW pump lube oil cooler outlet line check valve and the steam driven AFW pump gland relief valve) was inadvertently overlooked in the LRA submittal. This AMR Item was added to address selective leaching of these valves. It is performed in conjunction with AMR Item 3.4.2.03, which provides for a One-Time Inspection.	Rajan		
2.3.4.3-1	Changed 3.4.3.02 to 3.4.3.03	AMR Item 3.4.3.02 applies to an environment of deoxygenated treated water and was inadvertently linked to the steam supply strainer for the steam-driven AFW pump. AMR Item 3.4.3.03 addresses the correct material and environment for the steam supply strainer.	Rajan		
2.3.4.3-1	Added the Intended Function of Flow Restriction to "Pipes & Fittings"	Response to RAI 2.3.1.2-3	Razzaque Elliot		(OPPD) Added this line item. This change was not included in the original matrix from the NRC.

2.4.1-1	<p>Added 3.5.1.08. Deleted 3.5.1.16 and 3.5.1.23 from "Interior containment concrete in ambient air"</p>	<p>AMR Item 3.5.1.08, which applies to the Containment foundation, was inadvertently omitted from the original LRA submittal. It applies to settling which is not a plausible AERM at FCS due to the foundation being supported by steel pipe piles driven to bedrock; however, the foundation is still included in the Structures Monitoring Program.</p> <p>AMR Item 3.5.1.16 is redundant to AMR Items 3.5.1.08, 3.5.1.09, and 3.5.1.10 relative to Containment concrete and provision of aging management via the Structures Monitoring Program.</p> <p>Response to RAI 3.5.1-2</p>	Munson		
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2.4.1-1	Added 3.5.1.08. Deleted 3.5.1.23 from "Containment grout in ambient air"	AMR Item 3.5.1.08, which applies to the Containment foundation, was inadvertently omitted from the April 2002 LRA submittal. It applies to settling which is not a plausible AERM at FCS due to the foundation being supported by steel pipe piles driven to bedrock; however, the foundation is still included in the Structures Monitoring Program. AMR Item 3.5.1.23 was removed because it is a duplication of AMR item 3.5.1.10 for structures other than containment.	Munson		
2.4.1-1	Added 3.5.1.02 to "Containment mechanical and electrical penetrations"	AMR Item 3.5.1.02 was inadvertently omitted from the April 2002 submittal. It applies to the penetrations having SS bellows.	Munson		
2.4.1-1	Deleted 3.5.1.01 from "Containment mechanical penetrations with bellows"	AMR Item 3.5.1.01 does not apply to FCS because the operating experience shows that Fatigue has never occurred in these components.	Munson		
2.4.1-1	Deleted 3.5.1.11 from "Containment prestressing/post- tensioning tendons"	AMR Item 3.5.1.11 was removed because the full discussion regarding containment tendon TLAA is addressed in Section 4.5 of the LRA.	Ashar		

2.4.1-1	Added 3.5.1.02 to "Fuel transfer penetration"	AMR Item 3.5.1.02 was inadvertently omitted from the April 2002 submittal. It applies to the penetrations having SS bellows.	Munson		
2.4.1-1	Added 3.5.1.10. Deleted 3.5.1.23 from "RV missile shields"	AMR Item 3.5.1.10 was added since it addresses the one AERM, reduction of strength and modulus due to elevated temperature, not addressed by AMR Item 3.5.1.16. AMR Item 3.5.1.23 was removed because it is a duplication of AMR item 3.5.1.10 for structures other than containment.	Munson		
2.4.1-1	Added 3.5.1.25 and 3.5.1.27 to "Trisodium phosphate baskets"	AMR Items 3.5.1.25 and 3.5.1.27 were added to apply to the basket support structure, which is CS. The baskets themselves are SS and are addressed by the other table entry.	Munson		
2.4.2.1-1	Deleted 3.5.1.23 from Aux bldg interior concrete in ambient air	AMR Item 3.5.1.23 was removed because plant operating experience has shown that the elevated temperatures do not apply to the Aux. Building.	Munson		
2.4.2.1-1	Added 3.5.1.16 to aux bldg grout in ambient air	AMR Item 3.5.1.16 conservatively added for this component. Even though 3.5.1.25 addressed grout degradation, Item 3.5.1.16 specifically applies to the concrete.	Munson		

2.4.2.1-1	Added 3.5.2.07 to aux bldg structural steel	AMR Item 3.5.2.07 was added to specifically address the flood gates in the Aux. Building that are managed for aging by the PS/PM Program.	Munson		
2.4.2.1-1	Deleted 3.5.1.23 from DG missile shield enclosure concrete in ambient air	AMR Item 3.5.1.23 was removed because plant operating experience has shown that the elevated temperatures do not apply to the Aux. Building and this component specifically.	Munson		
2.4.2.1-1	New component "Stainless steel pipe penetrations - SIRWT	This component was added to specifically address the SS Safety Injection piping penetrations of the CS SIRWT Liner. It was added here since the SIRWT is part of the Aux. Building Structure.	Munson		
2.4.2.3-1	Added 3.5.3.01 to Cast iron stuffing box floor penetration	AMR Item 3.5.3.01 was added for this cast iron component to specifically address the possibility of selective leaching since the mechanism was not included with Item 3.5.2.09.	Munson		
2.4.2.3-1	Deleted 3.5.2.32 from Concrete exposed to raw water	Response to RAI 3.5.1-17	Munson		

2.4.2.3-1	Changed 3.3.1.16 to 3.5.2.25 for SS strainer backwash piping floor penetration	Response to RAI 3.5-2	Munson		
2.4.2.5-1	Added new component "crane expansion anchors"	This item was added to specifically address the expansion anchors for all of the cranes and fuel handling devices included in this Commodity group. It was initially inadvertently overlooked.	Hatchett		
2.4.2.6-1	Changed 3.5.2.29 to 3.5.1.28 for Component support high-strength steel threaded fasteners in ambient air	This change was made to correct a typo in the April 2002 submittal since AMR Item 3.5.2.29 was not used in the application.	Munson		
2.4.2.7-1	Added "to non-CQE" to intended function of manhole MH-5 cover and flange	This change was not needed and will not be made.	Munson		(OPPD) Is this a docketing problem?
2.5.2-1	Added new component "instrumentation cable pigtailed"	Response to POI-12	Chopra		

3.1-1	Link 3.1.1.15 - Discussion column changed B1.7 to B.2.9	Response to RAI 3.1.1-1	Elliot Khan?		
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3.1-1	Link 3.1.1.32 - remove water chemistry as an AMP	<p>AMP is not cited in Gall Report Volume 1 Table 1</p> <p>Later Comment: Since the change is to text that is taken directly from Table 1 of Volume 1 of the GALL Report, the change is withdrawn; however, the reason for proposing the change follows.</p> <p>In GALL Report Volume 1, Table 1, page 13, row 1, the Water Chemistry Program is cited in only one of the GALL Report Item Numbers included in the Column "Item Number in GALL" That was Item IV.B3.3-a. In the other 14 GALL Report Items, Water Chemistry was not included. This is a situation where it is apparent that the authors of GALL Report Section XI meant for this Program, XI.M16, to encompass the requirement for water chemistry control per TR-105714. When you read Item 2, Preventive Actions, of XI.M16 on page XI M-55, it states that, "Reactor coolant water chemistry is monitored and maintained in accordance with the EPRI guidelines in TR-105714." It then refers the reader to the details provided in Section XI.M2, Water Chemistry. It seems, therefore,</p>	Elliot Burton	No. Do not remove AMP. It is identified in GALL Report Item IV.B3.3-a	(OPPD) This is a change that is being retracted. This whole issue is academic at FCS because primary water chemistry is controlled per TR-105714 as required by both of these programs. Because of the wording in Item 2 of XI.M16, and since all but one of the applicable 15 GALL Item Numbers do not require Water Chemistry, it is obvious that it was meant for Water Chemistry not to appear with any of the GALL Item Numbers referenced in the Table 1 row in question. It is, therefore,
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3.1-2	Link 3.1.2.02 - Add OTI	Response to RAI 3.1.2-5	Elliot		
3.1-2	Link 3.1.2.04 - Add OTI	Response to RAI 3.1.2-1	Elliot		
3.1-2	Link 3.1.2.06 - Added blowdown nozzles and deleted the ISI program	As a result of AMP review and development post-submittal, it was determined that for the components covered by this AMR Item, the ISI Program did not apply. The components are included in the SG Program. The SG blowdown nozzles were added as a component type to this Item and were included in the SG Program when it was determined that they, too, were not addressed by the ISI Program.	Elliot		
3.1-2	Link 3.1.2.07 - Removed it	Response to RAI B.2.9-2	Khan		

3.1-2	Link 3.1.2.14 - Added steam generator shell, deleted pitting corrosion, added crevice corrosion, and deleted ISI	<p>The SG shell was added as a component to this Item and was included in the SG Program when it was determined that it was not addressed by the ISI Program.</p> <p>The change in the 1st bullet in the "AERMs" column was to correct a typo since pitting is addressed in the 2nd bullet.</p> <p>As a result of AMP review and development post-submittal, it was determined that for the components covered by this AMR Item, the ISI Program did not apply.</p>	Khan		
3.1-3	Link 3.1.3.05 - Deleted thermal shield positioning pin and bolt	These components were inadvertently included with the April 2002 submittal. This item is meant to address the thermal shield only.	Elliot		
3.1-3	Link 3.1.3.11 - Deleted pressurizer shell	This change was made in error and is retracted.	Elliot		(OPPD) This is a change that is being retracted.
3.2-1	Link 3.2.1.04 - Deleted "not" from discussion column	Response to RAI 3.2.1-1	Lee		

3.2-1	Link 3.2.1.09 - Added program and AERM information in discussion column	This information was added to 1) clarify that the Closed Cycle Cooling Water System Program as defined in the GALL Report consists of the Cooling Water Corrosion Program and the Water Chemistry Program at FCS and 2) indicate that for CCW at FCS, galvanic corrosion, where applicable, and MIC also apply. Relative to the additional mechanisms, they are similar LOM mechanisms, that have been identified as being plausible at FCS, that will be managed in the same manner as general, pitting, and crevice corrosion by the credited program activities.	Lee		
3.2-2	Link 3.2.2.04 - Deleted component surface information	This change was made so that the AMR item could also be made to apply to internal SS surfaces in air as well. The AMR results are the same.	Lee		
3.3-1	Link 3.3.1.02 - Added PS/PMP	Response to RAI 3.3.1-1	Bailey Li		

3.3-1	Link 3.3.1.05 - Added Cooling Water Corrosion Program	This AMR Item corresponds to GALL Report Volume I, Table 3, row 1 on page 20 of Volume 1. It is seen that there are many applicable GALL Item numbers in Volume 2 and that the AMP is plant specific. It was determined post-submittal that some of the plant activities credited for aging management of components were actually associated with the Cooling Water Corrosion Program instead of the PSPM Program so the addition of that program was made.	Bailey Li		
3.3-1	Link 3.3.1.08 - Deleted OTI and PS/PMP and added ISI	This AMR Item corresponds to GALL Report Volume I, Table 3, row 5 on page 20 of Volume 1. It calls for AMPs of Water Chemistry and a plant specific program. It was determined post-submittal that the OTI and PSPM Programs were not needed since the AMP inspection functions are performed under the ISI Program for the covered components (Letdown and Regenerative HXs) at FCS.	Bailey Li		

3.3-1	Link 3.3.1.14 - added cast iron and clarifying info crediting the chemistry program	<p>This AMR Item corresponds to GALL Report Volume I, Table 3, last row on page 21 of Volume 1. The addition of cast iron for this AMR Item is consistent with GALL Item Number VII.C2.3-a for the CCW pumps.</p> <p>The program information added just provides clarification again that the Closed Cycle Cooling Water System Program as defined by the GALL report consists of both The Chemistry Program and the Closed Cycle Cooling Water Program at FCS.</p>	Bailey Li		
3.3-1	Link 3.3.1.20 - added potable water	Response to RAI 2.3.3.14-2	Bailey Li Mensah		
3.3-1	Link 3.3.1.24 - Deleted comment on cast iron and raw water	This full deletion should not have been made. The deletion should have only included the words "and bronze." This AMR Item is only credited for the cast iron CCW pumps.	Bailey Li		(OPPD) This response modifies the proposed change.
3.3-2	Link 3.3.2.01 - added internal surfaces of aluminum components	This change was made so that the AMR Item could be used for aluminum with internal air environments as well since the AMR results are the same.	Bailey Li		

3.3-2	Link 3.3.2.03 - Added aging management info about valve bodies	Response to RAI 2.3.3.14-2	Bailey Li Mensah		
3.3-2	Link 3.3.2.10 - Deleted external surface language	This change was made so that the AMR Item could be used for brass/bronze with internal air environments as well since the AMR results are the same.	Bailey Li		
3.3-2	Link 3.3.2.16 - Add pitting/crevice corrosion, delete cooling water corrosion AMP, and add PS/PMP	It was determined post-LRA submittal that the for the charging pump lube oil cooler tubes, the only component to which this AMR Item applies, that pitting and crevice corrosion were possible and that the credited aging management activity was associated with the PSPM Program instead of the Cooling Water Corrosion Program.	Bailey Li		
3.3-2	Link 3.3.2.17 - Add pipes and fittings	Response to RAI 3.2-1	Bailey Li Lee		
3.3-2	Link 3.3.2.18 - Add pipes and fittings	Response to RAI 3.2.1-4 3.2-1	Bailey Li		(OPPD) Corrected footnote reference to RAI 3.2 -1. Footnote '31' should be '35.'

3.3-2	Link 3.3.2.21 - Add tanks and coated carbon steel	<p>Response to RAI 3.3.2-7</p> <p>This AMR Item was utilized for the Diesel Fire Pump Fuel Oil Tank, FO-27, which is coated; however, from an AERM determination standpoint, the coating is not credited.</p>	Bailey Li		
3.3-2	Link 3.3.2.23 - Add bus duct	<p>This component was added post-submittal for the SBO analysis changes that were documented in the response to RAI 2.5-1. It applies to the 22kv Bus Duct.</p> <p>The added SBO work scope was actually in progress before the RAI was sent to OPPD so this change was originally identified in red as a change by OPPD; however, as stated above, the change was provided to the NRC in response to the above RAI.</p>	Bailey Li		
3.3-2	Link 3.3.2.26- Delete carbon steel	<p>This AMR Item only applies to cast iron components in a concrete environment in the Liquid Waste Disposal System; therefore, the identification of carbon steel as an applicable material was removed.</p>	Bailey Li		

3.3-2	Link 3.3.2.27 - Add pipes and fittings and pump casings, cast iron, and FPP	Response to RAI 2.3.3.14-2	Bailey Li Mensah		
3.3-2	Link 3.3.2.30 - Add heat exchanger channel and channel head, bronze, and oxygenated treated water <200 F	Response to RAI 2.3.3.14-2 This AMR Item applies to the Control Room A/C Unit condenser channel heads and header so these components were added for selective leaching aging management. It is performed in conjunction with AMR Item 3.3.2.29.	Bailey Li Mensah		
3.3-2	Link 3.3.2.37 - Add valve bodies	This AMR Item was credited for Diesel Starting air copper and copper alloy valve bodies in the April 2002 LRA submittal but the component type was not included in the Component Type description at the time so it was added.	Bailey Li		
3.3-2	Link 3.3.2.38 - Add liquid	This clarification was added to indicate that this AMR Item also applies to the components in the liquid portion of the refrigeration cycle.	Bailey Li		

3.3-2	Link 3.3.2.45 - Add copper alloy	This clarification was added to show that this AMR Item applied to copper alloy tubing not identified as containing zinc as well. There is no difference in the AMR results for the slightly different materials in the fuel oil environment	Bailey Li		
3.3-2	Link 3.3.2.47 - Add below grade and FPP	Response to RAI 2.3.3.14-2	Bailey Li Mensah		
3.3-2	Link 3.3.2.50 - Added Tank	This AMR Item was credited for aging management of the Boric Acid Storage Tanks (in CVCS, Table 2.3.3.1-1) in the April 2002 LRA submittal; however, "tanks" were not identified in the Component Type column.			(OPPD) This was missing from the original matrix from the NRC Project Manager.
3.3-2	Link 3.3.2.56 - Delete OTI	Since elements of the credited Cooling Water Corrosion Program verify the adequacy of the Chemistry Program, for the Primary Sampling cooler tubes that link to this AMR Item, crediting the One Time Inspection Program was determined to be unnecessary.	Bailey Li		
3.3-2	Link 3.3.2.64 - Removed this link	This item was identical to AMR Item 3.3.2.75 so this item was eliminated and all links to it were changed to 3.3.2.75.	Bailey Li		

3.3-2	Link 3.3.2.70 - Add pipes and fittings	After the April 2002 LRA submittal, it was determined that the hydrogen lines connecting the valves, for which a hydrogen environment was identified, had not been included in the LRA so they were added and the Component Type "Pipes & Fittings" was added to this AMR Item.	Bailey Li		
3.3-2	Link 3.3.2.73 - Add tanks and OTI. Deleted general corrosion and FPP	Response to RAIs 2.3.1.2-3 and 3-2-4	Bailey Li Razzaque		(OPPD) Corrected footnote reference to RAI 2.3.1.2-3. Footnote '35' should be '39.'
3.3-2	Link 3.3.2.74 - Add RCP pump cover, RCP seal water cooler tubes. Removed "tubes" from heat exchanger	Response to RAI 3.1-1 This AMR Item applied to applicable HX subcomponents other than the tubes alone so the differentiation for tubes only was removed.	Bailey Li Elliot		(OPPD) The removal of HX tubes was not identified in the original matrix from the NRC Project Manager.
3.3-2	Link 3.3.2.76 - Add valve bodies and pipes and fittings	Responses to RAI 3.3.2-7 and POI-1(a)	Bailey Li Cullison		
3.3-2	Link 3.3.2.77 - Removed this link	Response to RAI 3.3.2-1	Bailey Li		

3.3-2	Link 3.3.2.78 - Added this link	Response to RAI 2.3.3.8-1	Bailey Li Jackson Patnaik		
3.3-2	Link 3.3.2.84 - Added Brass	Even though brass is a copper alloy, this clarification identified the type of copper alloy. There is no effect on the applicable AMR results.			(OPPD) This addition was not identified in the original matrix from the NRC Project Manager.
3.3-2	Link 3.3.2.85 - Added filter/strainers	Response to RAI 3.3.2-7	Bailey Li		
3.3-2	Link 3.3.2.89 - Added pipes and valves	This change is not required since there are no Section 2 tables that utilize this AMR link for pipes and fittings.	Bailey Li		(OPPD) The identified pipes and valves should actually be Pipes and Fittings.
3.3-2	Link 3.3.2.91 - Added heat exchangers and copper alloy	This AMR Item was deleted since it is not used in the application and there is no longer a link in any Section 2 table.	Bailey Li		(OPPD) The proposed change is modified to remove the AMR Item from the table as not being used in the application.

3.3-2	Link 3.3.2.93 - Added pump casings and ductile iron	Responses to RAI 2.3.3.14-2 and POI-1(a)	Bailey Li Mensah		OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote '42' should be '46.'
3.3-2	Link 3.3.2.95 - Added valve bodies, stainless steel, deoxygenated treated water <200 F, cracking and loss of material due to pitting and crevice corrosion, and FPP	Response to 2.3.3.14-2 POI-1(a) [Refer to discussion above for Table 2.3.3.15-1 relative to Item 3.3.2.95]	Bailey Li Mensah		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote '42' should be '46.'
3.3-2	Link 3.3.2.96 - Add valves	The component Type Valves in the Liquid Waste Disposal System had a link to this AMR Item in the April 2002 LRA submittal; however, the Component Type "Valve" was not included in this AMR Item.	Bailey Li		

3.3-3	Link 3.3.3.01 - Add flow element/orifice, transmitter/element, and V.A.1-a, V.A.3-a, and V.a.4-a, and change 3.3.1.10 to 3.2.1.10	<p>Response to RAIs 3.3-1 and 3.3.2-1</p> <p>These Component Types were added to this AMR Item to address the inlet flow element to the boric acid blending tee, the Ion Exchanger loop letdown flow element, and charging pump discharge header flow element when it replaced AMR Item 3.3.1.08 for these components. AMR Item 3.3.1.08 addressed HXs only so AMR Item 3.3.3.01 became a better match with the addition of these component types</p>	Bailey Li Lee		(OPPD) Corrected footnote reference to RAI 2.3.3.14-2. Footnote '43' should be '47.'
3.3-3	Link 3.3.3.03 - Added valve bodies and OTI	<p>This AMR Item was included for CVCS valve bodies in the April 2002 LRA submittal; however, the Component Type "valve bodies" was not included in the AMR Item so it was added.</p> <p>Response to RAI 3.3.3-2</p>	Bailey Li		
3.3-3	Link 3.3.3.04 - Deleted Link	Response to RAI 3.3.3-3	Bailey Li		

3.3-3	Link 3.3.3.05 - Added heat exchangers	This AMR Item was included for Diesel Lube Oil and Fuel Oil heat exchangers in the April 2002 LRA submittal; however, the Component Type "heat exchangers" was not included in the AMR Item so it was added.	Bailey Li		
3.3-3	Link 3.3.3.06 - Deleted tanks	This AMR Item was deleted from 3.3.3.06 because the Type 1 table item to which it is linked, 3.3.1.07, specifically addresses tanks and was also included in the Table 2.3.3.5-1, Aux. Boiler Fuel Oil and Fire Protection Fuel Oil, row for Tanks. The link to 3.3.3.06 was removed from Table 2.3.3.5-1, as addressed above, so the Component Type "Tanks" is not needed.	Bailey Li		
3.3-3	Link 3.3.3.07 - Added filters/strainers and ductile iron	Filters/strainers were added as a Component Type in this AMR Item after it was determined that Item 3.3.3.07 was a better fit for the cast iron Raw Water filters/strainers than the original link of 3.3.1.05. Ductile iron was added as a material due to ductile iron valves present in CVCS.	Bailey Li		

3.3-3	Link 3.3.3.08 - Added indicator/recorder and stainless steel	Response to RAI 3.3.3-4 The stainless steel indicators/recorders in the CCW System had a link to this AMR Item in the April 2002 submittal; however, the component type and material for these were not identified in the AMR Item. This change adds these component types and material.	Bailey Li		
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3.3-3	Link 3.3.3.09 - Added filter/strainers, fan housings, pumps, transmitter/element, ductile iron, and boric acid corrosion	<p>This AMR Item was a link for filter housings in the Containment ventilation system in the April 2002 LRA submittal; however, the component type was not included in the Item. This change adds it.</p> <p>This AMR Item was added post-LRA submittal as a link for fan housings and for filters/strainers in the Aux. Building HVAC Table 2.3.3.11-1.</p> <p>Flow element housings were added as a new Component Type to the Aux. Building Table 2.3.3.11-1 post-LRA submittal. That new component type included a link to this AMR Item.</p> <p>This AMR Item was a link for pump casings in the CCW system in the April 2002 LRA submittal; however, the component type was not included in the Item. This change adds it.</p> <p>This AMR Item was added as a link for the ductile iron valve bodies in CVCS as a more appropriate link for aging management than AMR Item 3.3.1.13; therefore, ductile iron was added as a material for Item 3.3.3.09.</p>	Bailey Li		
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3.3-3	Link 3.3.3.10 - Delete fire blocking and "made of same material." Added heat exchangers	<p>Deleted "fire blocking" to just "Dampers" to allow encompassing of all dampers, not just fire dampers.</p> <p>Added heat exchangers since these component types were inadvertently omitted from this AMR Item in the April 2002 submittal.</p> <p>The referenced GALL Item Number (equivalent to AMR Item 3.3.1.05) does not contain cast iron; therefore, the "Justification for applying NUREG-1801 Aging Management Review Results" column for Item 3.3.3.10 was revised to read as follows: "This material is subject to the same environment and aging effect, and managed by the same aging management program as the components evaluated in NUREG-1801, Volume 2, VII.F2.1-a."</p>	Bailey Li		(OPPD) The 3 rd change discussed differs from what was proposed so that the AMR Item Discussion wording is consistent with other Table 3.3-3 AMR Items.
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3.3-3	Link 3.3.3.11 - Add flow element/orifice, FP sprinkler/spray nozzle, pipes and fittings, pump casings, switch/bistable housing, brass, bronze, copper alloy, and FPP. Deleted "for externally exposed components"	Response to RAI 2.3.3.14-2	Bailey Li Mensah		
3.3-3	Link 3.3.3.13 - Added chemistry AMP	The Chemistry Program is required as a mitigative program in conjunction with the Cooling Water Corrosion Program to adequately manage this AERM. It was inadvertently omitted from the April 2002 submittal.	Bailey Li		
3.4-1	Link 3.4.1.02 - Added stainless steel	Response to RAI 3.3.3-6	Bailey Li Rajan		

3.4-1	Link 3.4.1.10 - Added clarifying language regarding chemistry and cooling water corrosion AMPs and additional LOM mechanisms	Both the Chemistry Program (B.1.2) and the Cooling Water Corrosion Program (B.2.2) manage the aging of the “Closed-cycle cooling water system” at FCS. Relative to the additional mechanisms, they are similar LOM mechanisms, that have been identified as being plausible at FCS, that will be managed in the same manner as general, pitting, and crevice corrosion by the credited program activities..	Rajan		(OPPD) The NRC provided matrix did not address the addition of Note 4 in the Item 3.4.1.10 Discussion column
3.4-1	Link 3.4.1.12 - Added “3.4.2.2.5.2”	Annotation in parenthesis “(see subsection 3.4.2.2.5.2)” should be removed. It is an erroneous entry.	Burton		
3.4-2	Link 3.4.2.03 - Added water chemistry AMP	Water Chemistry is the mitigative program and OTI is the inspection program for aging management of these components.	Rajan		
3.4-2	Link 3.4.2.04 - Added OTI	The Selective Leaching Program utilizes the OTI for aging management of these components.	Rajan		

3.4-3	Link 3.4.3.01 - Added stainless steel. Changed from B.2.8 to B.2.7	Adding stainless steel makes this AMR Item consistent with GALL AMR Item 3.4.1.04. Corrected program reference to B.2.8 which was entered in error.	Rajan		
3.4-3	Link 3.4.3.03 - Added low-alloy steel	This material is also found in this system/environment. The AERMs are the same and are managed by the same AMPs.	Rajan		
3.4-3	Link 3.4.3.04 - Added low-alloy steel	This material is also found in this system/environment. The AERMs are the same and are managed by the same AMPs.	Rajan		
3.5-1	Link 3.5.1.23 - Revised link from 3.5.1.22 to 3.5.1.23	Response to RAI 3.5.1-5	Munson		
3.5-1	Link 3.5.1.24 - Revised link from 3.5.1.23 to 3.5.1.24	Response to RAI 3.5.1-5	Munson		
3.5-2	Link 3.5.2.28 - Added cracking	Cracking was inadvertently omitted from the April 2002 submittal. Cracking is another plausible AERM for this material/environment and is managed by the same AMPs.	Munson		

3.5-2	Link 3.5.2.32 - Removed link	Deleted AERM of Cracking and SCC for stainless steel bolting in ambient air since they are not plausible.	Munson		
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