

## INTERIM STAFF GUIDANCE

### UPDATED AGING MANAGEMENT CRITERIA FOR MECHANICAL PORTIONS OF SUBSEQUENT LICENSE RENEWAL GUIDANCE

#### SLR-ISG-MECHANICAL-2020-XX

#### ERRATA

#### PURPOSE

The U.S. Nuclear Regulatory Commission (NRC) staff is providing these errata to subsequent license renewal (SLR) draft Interim Staff Guidance (ISG) SLR-ISG-Mechanical-2020-XX, which was issued on July 2, 2020 (see *Federal Register* Notice (FRN) 85 FR 39938).

The purpose of issuing these errata is to provide additional information to Appendix H of the draft ISG that was not included in the draft ISG issued on July 2, 2020.

These errata provide additional proposed revisions to the mechanical portions of NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report," issued July 2017, and NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants," issued July 2017 (SRP-SLR).

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## APPENDIX H ERRATA

### Proposed Revisions to AMP XI.M42, “Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks”

#### Additions to “Summary of Proposed Revisions”

This ISG revises AMP XI.M42, “Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks,” to recommend opportunistic inspections, in lieu of periodic inspections, as an acceptable alternative for buried internally coated/lined fire water system piping provided: (a) flow tests and internal piping inspections will occur at intervals specified in NFPA 25, “Standard for the Inspection, Testing, and Maintenance of Water Based Fire Protection Systems,” or as modified by AMP XI.M27, “Fire Water System,” Table XI.M27-1, “Fire Water System Inspection and Testing Recommendations”; (b) through-wall flaws in the piping can be detected through continuous system pressure monitoring; and (c) plant-specific operating experience (OE) is acceptable (i.e., no leaks due to the age related degradation of representative internal coatings/linings used in buried in scope fire water system components).

This ISG also revises AMP XI.M42 environments as follows: (a) adds air and condensation environments to the scope of the program; (b) adds soil, concrete, and underground external environments to the FSAR Supplement; and (c) corrects inconsistencies for the lubricating oil environment. In addition, this ISG includes new GALL-SLR Report AMR items for managing loss of coating/lining integrity and loss of material in piping, piping components, heat exchangers, and tanks with internal coatings/linings exposed to air-dry using AMP XI.M42.

Further, this ISG revises SRP-SLR Table 3.3-1 and GALL-SLR Report Volume 1, Section VII tables to include AMR items for managing recurring internal corrosion of metallic components exposed to raw water that are not covered by Generic Letter (GL) 89-13, using the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components program. Additionally, this ISG corrects other associated AMR items by including the “a,” “b,” or “c” designation after the AMR item number to distinguish between the various AMPs that are acceptable for managing the cited aging effect, and deletes “closed-cycle cooling water” from environments listed in the associated AMR item 3.3-1-127.

#### Additions to “Basis for Revisions”

The staff has accepted opportunistic inspections, in lieu of periodic inspections, as an acceptable alternative for buried internally coated/lined fire water system piping provided: (a) flow tests and internal piping inspections will occur at intervals specified in NFPA 25, or as modified by AMP XI.M27, Table XI.M27-1; and (b) through-wall flaws in the piping can be detected through continuous system pressure monitoring. Examples of the staff’s acceptance of this alternative approach are documented in the Safety Evaluation Report Related to the License Renewal of Fermi 2 Nuclear Power Plant (ADAMS Accession No. ML16190A241) and the Safety Evaluation Report Related to the Subsequent License Renewal of Peach Bottom Atomic Power Station, Units 2 and 3 (ADAMS Accession No. ML20044D902). Based on recent OE involving ruptures of buried fire water system piping due to age-related degradation (ADAMS Accession No. ML19294A044), the staff added a third condition for using this alternative approach related to plant specific operating experience. The staff notes that the subject OE involved degradation of the external surfaces of the piping; however, degradation of

internal coatings/linings could also result in significant degradation of buried fire water system piping.

The reason for citing specific AMPs to manage recurring internal corrosion rather than a plant-specific AMP is discussed in GALL-SLR Report section, "Explanation of the Use of Multiple Aging Management Programs in Aging Management Review Items." For the associated AMR item in the SRP-SLR (item 3.3-1, 127), the listed environments still include closed-cycle cooling water even though NUREG-2221, Table 2-13, notes that the associated item in Table C2, "Closed-Cycle Cooling Water System," was deleted because recurring internal corrosion is not anticipated in this system. This oversight is being corrected in conjunction with the adjustments above for use of multiple AMPs.

#### Changes to "Proposed AMP Revisions"

### **Program Description**

Proper maintenance of internal coatings/linings is essential to provide reasonable assurance that the intended functions of in-scope components are met. Degradation of coatings/linings can lead to loss of material or cracking of base materials and downstream effects such as reduction in flow, reduction in pressure, or reduction of heat transfer when coatings/linings become debris. The program consists of periodic visual inspections of internal coatings/linings exposed to closed-cycle cooling water (CCCW), raw water, treated water, treated borated water, waste water, fuel oil, ~~and~~ lubricating oil, air, and condensation. Where the visual inspection of the coated/lined surfaces determines that the coating/lining is deficient or degraded, physical tests are performed, where physically possible, in conjunction with the visual inspection. Electric Power Research Institute (EPRI) Report 1019157, "Guideline on Nuclear Safety-Related Coatings," provides information on the American Society for Testing and Materials (ASTM) standard guidelines and coatings. American Concrete Institute (ACI) Standard 201.1R, "Guide for Conducting a Visual Inspection of Concrete in Service," provides guidelines for inspecting concrete. In addition, this program may be used to manage aging effects associated with coatings on external surfaces.

### **Evaluation and Technical Basis**

1. **Scope of Program:** The scope of the program is internal coatings/linings for in-scope piping, piping components, heat exchangers, and tanks exposed to CCCW, raw water, treated water, treated borated water, waste water, fuel oil, ~~and~~ lubricating oil, air, and condensation where loss of coating or lining integrity could prevent satisfactory accomplishment of any of the component's or downstream component's current licensing basis (CLB) intended functions identified under Title 10 of the *Code of Federal Regulations* (10 CFR) 54.4(a)(1), (a)(2), or (a)(3). The aging effects associated with fire water tank internal coatings/linings are managed by Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report aging management program (AMP) XI.M27, "Fire Water System," instead of this AMP. However, where the fire water storage tank internals are coated, the Fire Water System Program and Final Safety Analysis Report (FSAR) Summary Description of the Program should be enhanced to include the recommendations associated with training and qualification of personnel and the "corrective actions" program element. The Fire Water System Program should also be enhanced to include the recommendations from the "acceptance criteria" program element.

If a coating/lining has a qualified life, and it will be replaced prior to the end of its qualified life without consideration of extending the life through condition monitoring, it would not be considered long lived and therefore, it would not be within the scope of this AMP.

Coatings/linings are an integral part of an in-scope component. The CLB-intended function(s) of the component dictates whether the component has an intended function(s) that meets the scoping criteria of 10 CFR 54.4(a). Internal coatings/linings for in-scope piping, piping components, heat exchangers, and tanks are not evaluated as standalone components to determine whether they meet the scoping criteria of 10 CFR 54.4(a). It is immaterial whether the coating/lining has an intended function identified in the CLB because it is the CLB-intended function of the component that dictates whether the component is in-scope and thereby the aging effects of the coating/lining integral to the component must be evaluated for potential impact on the component's and downstream component's intended function(s).

An applicant may elect to manage the aging effects for internal coatings/linings for in-scope piping, piping components, heat exchangers, and tanks in an alternative AMP that is specific to the component or system in which the coatings/linings are installed (e.g., GALL-SLR Report AMP XI.M20, "Open-Cycle Cooling Water System," for service water coatings/linings) as long as the following are met:

- The recommendations of this AMP are incorporated into the alternative program.
- Exceptions or enhancements associated with the recommendations in this AMP are included in the alternative AMP
- The FSAR supplement for this AMP as shown in the GALL-SLR Report Table XI-01, "FSAR Supplement Summaries for GALL-SLR Report Chapter XI Aging Management Programs," is included in the application with a reference to the alternative AMP.

For components where the aging effects of internally coated/lined surfaces are managed by this program, loss of material, cracking, and loss of material due to selective leaching need not be managed for these components by another program.

This program may be used to manage aging effects associated with external surfaces [e.g., Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants (SRP-SLR) Section 3.2.2.2.2]. When the external coatings are credited to isolate the external surface of a component from the environment, the following recommendations are met as noted.

## Changes to "Proposed Revisions to FSAR Supplement"

None

Table XI-01. FSAR Supplement Summaries for GALL-SLR Report Chapter XI Aging Management Programs			
AMP	GALL-SLR Program	Description of Program	Implementation Schedule*
XI.M42	Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks	<p>This program is a condition monitoring program that manages degradation of internal coatings/linings exposed to closed-cycle cooling water, raw water, treated water, treated borated water, waste water, lubricating oil <del>or</del> fuel oil, <u>air, or condensation</u> that can lead to loss of material of base materials or downstream effects such as reduction in flow, reduction in pressure or reduction of heat transfer when coatings/linings become debris. This program can also be used to manage loss of coating integrity for external coatings exposed to any air environment or condensation, <u>soil, concrete, or underground environment, that are</u> credited with isolating the external surface of a component from <del>the environment</del> <u>these environments</u> (e.g., <u>as discussed in SRP-SLR Section 3.2.2.2.2</u>).</p>	<p>Program is implemented and inspections begin 10 years before the subsequent period of extended operation.</p>
		<p>This program manages these aging effects for internal coatings by conducting periodic visual inspections of all coatings/linings applied to the internal surfaces of in-scope components where loss of coating or lining integrity could impact the component's or downstream component's current licensing basis intended function(s). Visual inspections are conducted on external surfaces when applicable.</p>	<p>Inspections that are to be completed prior to the subsequent period of extended operation are completed</p>
		<p>For tanks and heat exchangers, all accessible surfaces are inspected. Piping inspections are sampling-based. The training and qualification of individuals involved in coating/lining inspections of non-cementitious coatings/linings are conducted in accordance with ASTM International Standards endorsed in RG 1.54 including guidance from the staff associated with a particular standard. For cementitious coatings, training and qualifications are based on an appropriate combination of education and experience related to inspecting concrete surfaces. Peeling and delamination is not acceptable. Blisters are evaluated by a coatings specialist with the blisters being surrounded by sound material and with the size and frequency not increasing. Minor cracks in cementitious coatings are acceptable provided there is no evidence of debonding. All other degraded conditions are evaluated by a coatings specialist. For coated/lined surfaces determined to not meet the acceptance criteria, physical testing is performed where physically possible (i.e., sufficient room to conduct testing) in conjunction with repair or replacement of the coating/lining.</p>	<p>6 months prior to the subsequent period of extended operation or no later than the last refueling outage prior to the subsequent period of extended operation.</p>

### Changes to “Proposed Revisions to AMR Items”

~~None~~

Proposed Revisions to GALL-SLR Report Tables V.A, V.B, V.D1, V.D2, VII.C1, VII.C3, VII.D, VII.E5, and VII.G

The following tables provide proposed changes to AMR items related to this ISG, with redline formatting indicating changes from the GALL-SLR Report or SRP-SLR.

<b>V</b> <b>Table A</b> <b>ENGINEERED SAFETY FEATURES</b> <b>Containment Spray System (PWR)</b>								
New, Modified, Deleted, Edited Item	Item	SRP Item (Table, ID)	Structure and/or Component	Material	Environment	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation
M	V.A.E-401	3.2-1, 072	Piping, piping components, heat exchangers, tanks with internal coatings/linings	Any material with an internal coating/lining	Treated borated water, <u>lubricating oil</u>	Loss of coating or lining integrity due to blistering, cracking, flaking, peeling, delamination, rusting, physical damage; loss of material or cracking for cementitious coatings/linings	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No

<b>V</b> <b>Table B</b> <b>ENGINEERED SAFETY FEATURES</b> <b>Standby Gas Treatment System (BWR)</b>								
<b>New, Modified, Deleted, Edited Item</b>	<b>Item</b>	<b>SRP Item (Table, ID)</b>	<b>Structure and/or Component</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect/Mechanism</b>	<b>Aging Management Program (AMP)/TLAA</b>	<b>Further Evaluation</b>
M	V.B.E-401	3.2-1, 072	Piping, piping components, heat exchangers, tanks with internal coatings/linings	Any material with an internal coating/lining	Treated water, raw water, <u>lubricating oil</u>	Loss of coating or lining integrity due to blistering, cracking, flaking, peeling, delamination, rusting, physical damage; loss of material or cracking for cementitious coatings/linings	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No

<b>V</b> <b>Table D1</b> <b>ENGINEERED SAFETY FEATURES</b> <b>Emergency Core Cooling System (PWR)</b>								
New, Modified, Deleted, Edited Item	Item	SRP Item (Table, ID)	Structure and/or Component	Material	Environment	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation
M	V.D1.E-401	3.2-1, 072	Piping, piping components, heat exchangers, tanks with internal coatings/linings	Any material with an internal coating/lining	Treated borated water, <u>lubricating oil</u> , <u>condensation</u>	Loss of coating or lining integrity due to blistering, cracking, flaking, peeling, delamination, rusting, physical damage; loss of material or cracking for cementitious coatings/linings	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No
M	V.D1.E-414	3.2-1, 073	Piping, piping components, heat exchangers, tanks with internal coatings/linings	Any material with an internal coating/lining	Treated borated water, <u>lubricating oil</u> , <u>condensation</u>	Loss of material due to general, pitting, crevice corrosion, MIC	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No



<b>V</b> <b>Table D2</b> <b>ENGINEERED SAFETY FEATURES</b> <b>Emergency Core Cooling System (BWR)</b>								
New, Modified, Deleted, Edited Item	Item	SRP Item (Table, ID)	Structure and/or Component	Material	Environment	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation
M	V.D2.E-401	3.2-1, 072	Piping, piping components, heat exchangers, tanks with internal coatings/linings	Any material with an internal coating/lining	Treated water, <u>lubricating oil,</u> <u>condensation</u>	Loss of coating or lining integrity due to blistering, cracking, flaking, peeling, delamination, rusting, physical damage; loss of material or cracking for cementitious coatings/linings	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No
M	V.D2.E-414	3.2-1, 073	Piping, piping components, heat exchangers, tanks with internal coatings/linings	Any material with an internal coating/lining	Treated water, <u>lubricating oil,</u> <u>condensation</u>	Loss of material due to general, pitting, crevice corrosion, MIC	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No

<b>VII AUXILIARY SYSTEMS</b> <b>Table C1 Open-Cycle Cooling Water System (Service Water System)</b>								
New, Modified, Deleted, Edited Item	Item	SRP Item (Table, ID)	Structure and/or Component	Material	Environment	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation
M	VII.C1.A-400a	3.3-1, 127	Piping, piping components, tanks	Metallic	Raw water	Loss of material due to recurring internal corrosion	AMP XI.M20, "Open-Cycle Cooling Water System"	Yes
<u>N</u>	<u>VII.C1.A-400b</u>	<u>3.3-1, 127</u>	<u>Piping, piping components, tanks (for components not covered by NRC GL 89-13)</u>	<u>Metallic</u>	<u>Raw water</u>	<u>Loss of material due to recurring internal corrosion</u>	<u>AMP XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components"</u>	<u>Yes</u>

<b>VII</b> <b>Table C3</b> <b>AUXILIARY SYSTEMS</b> <b>Ultimate Heat Sink</b>								
New, Modified, Deleted, Edited Item	Item	SRP Item (Table, ID)	Structure and/or Component	Material	Environment	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation
M	VII.C3.A-400a	3.3-1, 127	Piping, piping components, tanks	Metallic	Raw water	Loss of material due to recurring internal corrosion	AMP XI.M20, "Open-Cycle Cooling Water System"	Yes
<u>N</u>	<u>VII.C3.A-400b</u>	<u>3.3-1, 127</u>	<u>Piping, piping components, tanks (for components not covered by NRC GL 89-13)</u>	<u>Metallic</u>	<u>Raw water</u>	<u>Loss of material due to recurring internal corrosion</u>	<u>AMP XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components"</u>	<u>Yes</u>

<b>VII</b> <b>Table D</b> <b>AUXILIARY SYSTEMS</b> <b>Compressed Air System</b>								
New, Modified, Deleted, Edited Item	Item	SRP Item (Table, ID)	Structure and/or Component	Material	Environment	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation
<u>DN</u>	<u>VII.D.A-414</u>	<u>3.3-1, 139</u>	<u>Piping, piping components, heat exchangers, tanks with internal coatings/linings</u>	<u>Any material with an internal coating/lining</u>	<u>Air-dry, air, condensation</u>	<u>Loss of material due to general, pitting, crevice corrosion, MIC</u>	<u>AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"</u>	<u>No</u>
<u>DN</u>	<u>VII.D.A-416</u>	<u>3.3-1, 138</u>	<u>Piping, piping components, heat exchangers, tanks with internal coatings/linings</u>	<u>Any material with an internal coating/lining</u>	<u>Air-dry, air, condensation</u>	<u>Loss of coating or lining integrity due to blistering, cracking, flaking, peeling, delamination, rusting, physical damage; loss of material or cracking for cementitious coatings/linings</u>	<u>AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"</u>	<u>No</u>

<b>VII</b> <b>Table E5</b> <b>AUXILIARY SYSTEMS</b> <b>Waste Water Systems</b>								
<b>New, Modified, Deleted, Edited Item</b>	<b>Item</b>	<b>SRP Item (Table, ID)</b>	<b>Structure and/or Component</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect/Mechanism</b>	<b>Aging Management Program (AMP)/TLAA</b>	<b>Further Evaluation</b>
M	VII.E5.A-400 <b><u>b</u></b>	3.3-1, 127	Piping, piping components, tanks	Metallic	Waste water	Loss of material due to recurring internal corrosion	AMP XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components"	Yes

<b>VII</b> <b>Table G</b> <b>AUXILIARY SYSTEMS</b> <b>Fire Protection</b>								
New, Modified, Deleted, Edited Item	Item	SRP Item (Table, ID)	Structure and/or Component	Material	Environment	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation
M	VII.G.A-400c	3.3-1, 127	Piping, piping components, tanks	Metallic	Raw water, raw water (potable), treated water	Loss of material due to recurring internal corrosion	AMP XI.M27, "Fire Water System"	Yes

Proposed Revisions to SRP-SLR Tables 3.2-1 and 3.3-1

<b>Table 3.2-1 Summary of Aging Management Programs for Engineered Safety Features Evaluated in Chapter V of the GALL-SLR Report</b>							
<b>New, Modified, Deleted, Edited Item</b>	<b>ID</b>	<b>Type</b>	<b>Component</b>	<b>Aging Effect/Mechanism</b>	<b>Aging Management Program (AMP)/TLAA</b>	<b>Further Evaluation Recommended</b>	<b>GALL-SLR Item</b>
M	072	BWR/PWR	Any material piping, piping components, heat exchangers, tanks with internal coatings/linings exposed to closed-cycle cooling water, raw water, treated water, treated borated water, <u>lubricating oil, condensation</u>	Loss of coating or lining integrity due to blistering, cracking, flaking, peeling, delamination, rusting, or physical damage; loss of material or cracking for cementitious coatings/linings	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No	V.A.E-401 V.B.E-401 V.C.E-401 V.D1.E-401 V.D2.E-401
M	073	BWR/PWR	Any material piping, piping components, heat exchangers, tanks with internal coatings/linings exposed to closed-cycle cooling water, raw water, treated water, treated borated water, <u>lubricating oil, condensation</u>	Loss of material due to general, pitting, crevice corrosion, MIC	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No	V.A.E-414 V.B.E-414 V.C.E-414 V.D1.E-414 V.D2.E-414

**Table 3.3-1 Summary of Aging Management Programs for Auxiliary Systems Evaluated in Chapter VII of the GALL-SLR Report**

New, Modified, Deleted, Edited Item	ID	Type	Component	Aging Effect/Mechanism	Aging Management Program (AMP)/TLAA	Further Evaluation Recommended	GALL-SLR Item
M	127	BWR/PWR	Metallic piping, piping components, tanks exposed to <del>closed-cycle cooling water</del> , raw water, raw water (potable), treated water, waste water	Loss of material due to recurring internal corrosion	AMP XI.M20, "Open-Cycle Cooling Water System," AMP XI.M27, "Fire Water System," or AMP XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components"	Yes (SRP-SLR Section 3.3.2.2.7)	VII.C1.A-400 <sup>a</sup> <a href="#">VII.C1.A-400<sup>b</sup></a> VII.C3.A-400 <sup>a</sup> <a href="#">VII.C3.A-400<sup>b</sup></a> VII.E5.A-400 <sup>b</sup> VII.G.A-400 <sup>c</sup>
M	138	BWR/PWR	Any material piping, piping components, heat exchangers, tanks with internal coatings/linings exposed to closed-cycle cooling water, raw water, raw water (potable), treated water, treated borated water, fuel oil, lubricating oil, waste water	Loss of coating or lining integrity due to blistering, cracking, flaking, peeling, delamination, rusting, or physical damage; loss of material or cracking for cementitious coatings/linings	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No	VII.C1.A-416 VII.C2.A-416 VII.C3.A-416 <a href="#">VII.D.A-416</a> VII.E4.A-416 VII.E5.A-416 VII.F1.A-416 VII.F2.A-416 VII.F3.A-416 VII.F4.A-416 VII.G.A-416 VII.H1.A-416 VII.H2.A-416
M	139	BWR/PWR	Any material piping, piping components, heat exchangers, tanks with internal coatings/linings exposed to closed-cycle cooling water, raw water, raw water (potable), treated water, treated borated water, fuel oil, lubricating oil, waste water	Loss of material due to general, pitting, crevice corrosion, MIC	AMP XI.M42, "Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks"	No	VII.C1.A-414 VII.C2.A-414 VII.C3.A-414 <a href="#">VII.D.A-414</a> VII.E4.A-414 VII.E5.A-414 VII.F1.A-414 VII.F2.A-414 VII.F3.A-414 VII.F4.A-414 VII.G.A-414 VII.H1.A-414 VII.H2.A-414