AMP XI.S8, Protective Coating Monitoring and Maintenance
Service Level 1 Coatings Inspection Frequency

Overview of purpose of change: Revise the frequency of in-service coating inspection monitoring to be consistent with the intent of ASTM D5163-08 paragraph 6 and allow the inspection of coatings meeting AMP XI.S8 element 6 acceptance criteria to be performed on a frequency not to exceed six years and based on trending of the total amount of permitted degraded coatings. Coatings not meeting acceptance criteria will be evaluated by a qualified Nuclear Coating Specialist to determine the appropriate timing for repair, replacement, or removal.

Basis Document Input: Revise NUREG-2221 as follows:

Add the following text to Table 2-30, AMP XI.S8 Protective Coating Monitoring and Maintenance.

Element 4 Detection of Aging Effects:

Summary of Significant Changes:	Technical Basis for Change
Inspections will be performed on a frequency not to exceed six years based on station operating experience and trending of the total amount of degraded coatings allowed in containment.	ASTM Specification D5163-08 paragraph 6 notes that the frequency of in-service coating inspections shall be determined by the licensee. ASTM D5163-08 paragraph 6 also notes that it is a good practice to perform inspections during each refueling outage. A frequency not to exceed six years based on station operating experience is justified based upon coating meeting acceptance criteria (AMP element 6) and trending of the total amount of degraded coatings in containment (AMP element 5). A coating condition assessment report is performed by a qualified Nuclear Coating Specialist to determine prioritization of repairs to be conducted during the current outage or repairs that can be postponed to a future date (ASTM D5163-08 paragraph 11.1.2). Trending of the total amount of degraded coatings allowed in containment is also performed by a qualified Nuclear Coating Specialist.

References:

[1] NUREG-2191, Section XI.S8, Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report, U. S. Nuclear Regulatory Commission, July 2017.

[2] ASTM D5163-08, "Standard Guide for Establishing a Program for Condition Assessment of Coating Service Level I Coating Systems in Nuclear Power Plants." West Conshohocken, Pennsylvania*:* American Society for Testing and Materials. 2008.

Document Changes:

NUREG-2191, GALL-SLR

Revise AMP XI.S08 element 4 as noted below:

4, ***Detection of Aging Effects:*** ~~ASTM D5163-08, paragraph 6 defines the inspection frequency to be each refueling outage or during major maintenance outages, as needed.~~ General visual ~~i~~nspections will be performed on a frequency not to exceed six years based on station operating experience and trending of the total amount of degraded coatings allowed in containment. ASTM D 5163-08, paragraph 9, discusses the qualifications for inspection personnel, the inspection coordinator, and the inspection results evaluator. ASTM D 5163-08, subparagraph 10.1, discusses development of the inspection plan and the inspection methods to be used. It states that a general visual inspection shall be conducted on all readily accessible coated surfaces during a walk-through. After a walk-through, or during the general visual inspection, thorough visual inspections shall be carried out on previously designated areas and on areas noted as deficient during the walk-through. A thorough visual inspection shall also be carried out on all coatings near sumps or screens associated with the ECCS. This subparagraph also addresses field documentation of inspection results. ASTM D 5163-08, subparagraph 10.5, identifies instruments and equipment needed for inspection.