



Standard Guide for Establishing a Program for Condition Assessment of Coating Service Level I Coating Systems in Nuclear Power Plants¹

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1. Scope

1.1 This standard covers procedures for establishing a monitoring program for condition assessment of Coating Service Level (CSL) I coating systems in operating nuclear power plants. Monitoring is an ongoing process of evaluating the condition and performance of the in-service coating systems.

1.2 It is the intent of this standard to provide a recommended basis for establishing a coatings condition assessment program, not to mandate a singular basis for all programs. Variations or simplifications of the program described in this standard may be appropriate for each operating nuclear power plant depending on their licensing commitments.

1.3 This requirements of ASME Section XI, In-Service Inspection Subsections IWE and IWL are beyond the scope of this standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

- D610 Practice for Evaluating Degree of Rusting on Painted Steel Surfaces
- D714 Test Method for Evaluating Degree of Blistering of Paints
- D3359 Test Methods for Measuring Adhesion by Tape Test
- D4538 Terminology Relating to Protective Coating and

Lining Work for Power Generation Facilities

- D4541 Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
- D5498 Guide for Developing a Training Program for Personnel Performing Coating and Lining Work Inspection for Nuclear Facilities
- D6677 Test Method for Evaluating Adhesion by Knife
- D7091 Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals
- D7108 Guide for Establishing Qualifications for a Nuclear Coatings Specialist
- D7234 Test Method for Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers

2.2 SSPC Standards:³

- SSPC-PA 2 Procedure for Determining Conformance to Dry Coating Thickness Requirements
- SSPC-PA 9 Measurement of Dry Coating Thickness on Cementitious Substrates Using Ultrasonic Gages
- SSPC-VIS 2 Standard Method of Evaluating Degree of Rusting on Painted Steel Surfaces

3. Terminology

3.1 *Definitions*—Definitions for use with this standard are shown in Terminology D4538 or other applicable standards.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *coating condition assessment, n*—overall evaluation of the coating condition based upon performance monitoring and visual inspection.

3.2.2 *coating maintenance work, n*—all-inclusive term associated with coating work that expressly relates to repair, refurbishment, or replacement of an existing coating. (See also *coating work*.)

3.2.3 *in-service coatings monitoring program, n*—systematic program established to assess and document the

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from Society for Protective Coatings (SSPC), 40 24th St., 6th Floor, Pittsburgh, PA 15222-4656, <http://www.sspc.org>.