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Standard Terminology Relating to Protective Coating and Lining Work for Power Generation Facilities¹

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1. Scope

1.1 This terminology covers terms and their definitions relevant to the use of protective coatings in nuclear power plants.

2. Referenced Documents

2.1 ASTM Standards:²

- D 16 Terminology for Paint, Related Coatings, Materials, and Applications
- D 1193 Specification for Reagent Water
- D 3843 Practice for Quality Assurance for Protective Coatings Applied to Nuclear Facilities
- D 3911 Test Method for Evaluating Coatings Used in Light-Water Nuclear Power Plants at Simulated Design Basis Accident (DBA) Conditions
- D 4227 Practice for Qualification of Coating Applicators for Application of Coatings to Concrete Surfaces
- D 4228 Practice for Qualification of Coating Applicators for Application of Coatings to Steel Surfaces
- D 4537 Guide for Establishing Procedures to Qualify and Certify Personnel Performing Coating Work Inspection in Nuclear Facilities
- D 4787 Practice for Continuity Verification of Liquid or Sheet Linings Applied to Concrete Substrates
- D 5144 Guide for Use of Protective Coating Standards in Nuclear Power Plants
- D 5161 Guide for Specifying Inspection Requirements for Coating and Lining Work (Metal Substrates)
- D 5162 Practice for Discontinuity (Holiday) Testing of Nonconductive Protective Coating on Metallic Substrates
- D 5962 Guide for Maintaining Unqualified Coatings (Paints) Within Level I Areas of a Nuclear Power Facility³

¹ This terminology is under the jurisdiction of ASTM Committee D33 on Protective Coating and Lining Work for Power Generation Facilities and is the direct responsibility of Subcommittee D33.92 on Definitions.

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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³ Withdrawn. The last approved version of this historical standard is referenced on www.astm.org.

2.2 Other Documents:⁴

- USNRC Regulatory Guide 8.8 Ensuring Occupational Radiation Exposure ALARA at Nuclear Power Stations
- 10CFR20.1 Standards for Protection Against Radiation

3. Terminology

- acceptable coating or lining system, *n***—safety-related coating or lining system for which a suitability for application review that meets the plant licensing requirements has been completed and there is reasonable assurance that, when properly applied and maintained, the coating or lining will not detach under normal or accident conditions. **D 5144**
- ALARA, *n***—concept of reducing radiation exposure to personnel to levels “as low as reasonably achievable,” as defined in the USNRC Regulatory Guide 8.8 and 10CFR20.1(C). **D 5144**
- blistering, *n***—formation of bubbles in a coating (paint) film. See D 16 (take out “ability to resist”). **D 3911**
- boiling water reactor (BWR), *n***—reactor in which the water moderator-coolant is boiled directly within the reactor core and the pressure in the reactor vessel is only slightly greater than the steam turbine pressure. **D 3911**
- certification, *n***—written documentation of qualification.
- checking, *n***—slight breaks in the film that do not penetrate to the previously applied coating or to the substrate.
- chemical spray, *n***—solution of chemicals that could be used during a loss of coolant accident (LOCA) to suppress the incident, to scavenge fission products, and to return the facility to near-ambient conditions. **D 3911**
- coating applicator, *n***—organization or individual responsible for applying a protective or decorative coating. **D 3843**
- coating manufacturer, *n***—organization responsible for manufacturing coating materials. **D 3843**
- Coating Service Level I, *n***—term used to describe areas inside the reactor containment where coating failure could adversely affect the operation of post-accident fluid systems and, thereby, impair safe shutdown. **D 5144**
- Coating Service Level II, *n***—term used to describe areas outside the reactor containment where coating failure could

⁴ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401.