This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Designation: D3843 – 16 (Reapproved 2021)$^{\varepsilon 1}$

Standard Practice for Quality Assurance for Protective Coatings Applied to Nuclear Facilities[1]

This standard is issued under the fixed designation D3843; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

ε[1] NOTE—Editorial updates were made in Section 2 and Section 6 in February 2021.

1. Scope

1.1 This standard replaces ANSI N101.4 and provides a common basis for, and specifically comprises quality assurance requirements applicable to, safety-related protective coating work in Coating Service Level I areas of nuclear facilities as defined in Guide D5144.

1.2 This standard meets the requirements of ANSI N101.4 while also recognizing advancements in technology and industry practices since transfer to ASTM responsibility for updating, rewriting, and issuing replacement standards to ANSI N101.4.

1.3 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D4227 Practice for Qualification of Coating Applicators for Application of Coatings to Concrete Surfaces

D4228 Practice for Qualification of Coating Applicators for Application of Coatings to Steel Surfaces

D4537 Guide for Establishing Procedures to Qualify and Certify Personnel Performing Coating and Lining Work Inspection in Nuclear Facilities

D4538 Terminology Relating to Protective Coating and Lining Work for Power Generation Facilities

D5144 Guide for Use of Protective Coating Standards in Nuclear Power Plants

2.2 *ANSI Standard:*[3]

N45.2 Quality Assurance Program Requirements for Nuclear Power Plants

2.3 *ASME Standard:*[4]

NQA-1 Quality Assurance Program Requirements for Nuclear Facilities

2.4 *Code of Federal Regulations:*[5]

10 CFR 50 Appendix B: Title 10, Chapter 1, Energy, Part 50, Domestic Licensing of Production and Utilization Facilities, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants

10 CFR 21 Reporting of Defects and Noncompliances

2.5 *Other Document:*

EPRI 1019157 Plant Support Engineering: Guideline on Nuclear Safety-Related Coatings, Revision 2 (formerly TR-109937 and 1003102)[6]

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 *project specification, n*—a written document designed to ensure execution of the coating work for a project in

[1] This practice is under the jurisdiction of ASTM Committee D33 on Protective Coating and Lining Work for Power Generation Facilities and is the direct responsibility of D33.04 on Quality Systems and Inspection.

Current edition approved Feb. 1, 2021. Published February 2021. Originally approved in 1980. Last previous edition approved in 2016 as D3843 – 16. DOI: 10.1520/D3843-16R21E01.

[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 American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

[4] Available from American Society of Mechanical Engineers (ASME), ASME International Headquarters, Two Park Ave., New York, NY 10016-5990, http://www.asme.org.

[5] Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, http://www.access.gpo.gov.

[6] Available from EPRI, 3420 Hillview Ave., Palo Alto, CA 94304, askepri@epri.com, http://www.epri.com.

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