



Standard Practice for Quality Assurance for Protective Coatings Applied to Nuclear Facilities¹

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.

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

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 \(89\) 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 accordance with the licensee's requirements. It is usually comprised of the general, legal, and technical specifications governing the work.

4. Significance and Use

4.1 Quality assurance, as covered by this practice, comprises all those planned and systematic actions necessary to provide adequate confidence that safety-related coating work in nuclear facilities as defined in Guide [D5144](#), will perform satisfactorily in service.

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.

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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 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>.