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Design, Installation, Operation, and Maintenance of Impressed Current Deep Anode Systems

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Document History:

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Foreword

The purpose of this AMPP standard practice is to present procedures and practices for the design, installation, operation, and maintenance of deep anode systems used for the control of external corrosion of underground or submerged metallic structures by impressed current cathodic protection (ICCP). It is intended to be used in conjunction with NACE SP0169 and SP0177. This standard is intended to be used by corrosion engineers, corrosion consultants, representatives from manufacturers, and others concerned with corrosion control of underground structures.

Rationale

The standard was reviewed and revised to clarify wording and terminology and to perform minor editorial changes.

Referenced Standards and Other Consensus Documents

Unless specifically dated, the latest edition, revision, or amendment of the documents listed in the table below shall apply.

AMPP/NACE/SSPC, www.ampp.org:	
NACE SP0169	Control of External Corrosion on Underground of Submerged Metallic Piping Systems
NACE SP0177	Mitigation of Alternating Current and Lightning Effects on Metallic Structures and Corrosion Control Systems
NACE TM0108	Testing of Catalyzed Titanium Anodes for Use in Soils or Natural Waters
ASTM International, www.astm.org:	
ASTM D1248	Standard Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable
ASTM D3032	Standard Test Method for Hookup Wire Insulation

In AMPP standards, the terms *shall* and *must* are used to state requirements and are considered mandatory. The term *should* is used to state something that is recommended, but is not considered mandatory. The term may is used to state something considered optional.

Section 1: Scope

1.1 This standard presents acceptable methods for the design, installation, operation, and maintenance of deep anode systems that discharge impressed current for cathodic protection (CP) of underground or submerged metallic structures.

1.2 This standard is based on the best available technology and methods that have been used successfully by experienced corrosion engineers.

1.3 This standard does not designate methods for every specific situation because the complexity of some environmental conditions precludes standardizing all design and installation procedures.

1.4 The provisions of this standard should be applied under the direction of a competent corrosion engineer. The