

Internal Cathodic Protection (CP) Systems in Oil-Treating Vessels

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Document History

2022-12-15: Revised by AMPP Standards Committee (SC) 15, Pipelines and Tanks

2007: Reaffirmed by NACE Specific Technology Group (STG) 35, Pipelines, Tanks, and Well Casings

2001: Reaffirmed by NACE STG 35, Pipelines, Tanks, and Well Casings

1995: Revised by NACE Task Group (TG) T-1E-11

1985: Approved by NACE TG T-1E-6, a component of Unit Committee T-1E on Cathodic Protection of Oilfield Equipment

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NACE SP0575-2022

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Foreword

This standard practice is a general guide for the application of effective cathodic protection to all types of oil-treating vessels containing a free water phase. This standard covers design criteria, the selection and installation of applicable systems, and the operation, monitoring, and maintenance of installed systems. There are many design variations in existing oil-treating vessels, with new designs being introduced continually. The preparation of standard practice for the cathodic protection of each vessel design is not practical. Therefore, this standard is not specific concerning one or more vessel designs. It is intended for use by corrosion engineers involved in oil and gas production, especially those concerned with surface facilities. Nothing contained in this standard is intended to conflict with applicable codes, including OSHA⁽¹⁾ regulations. Coatings and materials are discussed in this document in conjunction with the cathodic protection design, as the coating is a major factor when designing a cathodic protection system.

Scope

This standard provides a general guide for the application of effective cathodic protection (CP) to all types of oil-treating vessels containing a free water phase (the electrolyte). It is intended to be used by facility owners, contractors, inspectors, vessels equipment specialists, CP system designers, manufacturers, and others concerned with corrosion mitigation by using cathodic protection systems. The procedures in this standard may best be applied under the direction of a corrosion engineer and by persons with experience and knowledge of the design, installation, operation, maintenance, and control of corrosion protection in the oil-treating vessels containing the electrolyte.

Coatings and materials are discussed in this document in conjunction with the cathodic protection design, as the coating is a major factor when designing a cathodic protection system.

Rationale

The standard is being revised to comply with AMPP's five-year review policy. It has been updated to reflect current industry technology and terminology.

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.

⁽¹⁾ U.S. Occupational Safety and Health Administration (OSHA), www.osha.gov.