

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

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

Foreword, Scope, Rationale.....	4
Section 1 General	5
Section 2 Definitions	5
Section 3 Determination of Need for CP	6
3.1 General	6
3.2 Corrosion Rates	6
Section 4 Design and Selection of CP System	7
4.1 Basic Design Criteria	7
4.2 System Selection	7
4.3 Internally Coated (Lined) Vessels	9
Section 5 Anode Installation.....	10
5.1 Vertical Suspension / Vertical Cylindrical Anodes	10
5.2 Internally Supported	10
5.3 Vessel Wall Placement / Horizontal Cylindrical Vessels	10
Section 6 Reference Electrode Entrance	11
6.1 Methods	11
Section 7 Criteria for Protection	11
7.1 Steel-to-Water Potential	11
7.2 Coupon Weight Loss Tests	11
Section 8 Monitoring, Records, and Maintenance	12
8.1 Monitoring	12
8.2 Records.....	12
8.3 Maintenance.....	13
Section 9 Safety.....	13
References	14
Tables	
Table 1 Anode Performance Data for Commonly Used ICCP and GACP Systems	7

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.