Manual of Petroleum Measurement Standards Chapter 19.3, Part H

Specification for Establishing Evaporative Loss Factors for Floating-roof Tank Devices

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Foreword

This edition of API *MPMS* Ch. 19.3, Part H incorporates API *MPMS* Ch. 19.3, Part F, 1st Edition, *Evaporative Loss Factor for Storage Tanks Certification Program*, and API *MPMS* Ch. 19.3, Part G, 1st Edition, *Certified Loss Factor Testing Laboratory Registration*, both of which are withdrawn.

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Suggested revisions are invited and should be submitted to the Standards Department, API, 200 Massachusetts Avenue, NW, Suite 1100, Washington, DC 20001, standards@api.org.

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1 Scope

The purpose of this standard is to specify requirements for the use of the test methods in API's *Manual of Petroleum Measurement Standards* (*MPMS*), Ch. 19.3, Parts A through E to develop evaporative loss factors for floating-roof rim seals, deck fittings, and deck seams (hereinafter referred to as floating-roof devices).

This standard illustrates how other standards of the API *MPMS* Ch. 19.3 series are integrated into an overall loss factor development program to enable the user to develop a loss factor for a given floating-roof device. This standard presents procedures for the evaluations to be performed under such a program, including preparation for protocol testing of individual devices, monitoring of the tests, and analysis and reporting of test results for the purposes of establishing evaporative loss factors.

It is not the purpose of this loss factor development program as given in the *MPMS* Ch. 19.3 series of standards to specify procedures to be used in the design, manufacture, or field installation of floating-roof devices. Furthermore, equipment cannot necessarily be selected for use solely on the basis of evaporative-loss considerations. Many other factors—such as tank operation, maintenance, and safety—are important in designing and selecting tank equipment for a given application.

This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems 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 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any addenda) applies.

API *Manual of Petroleum Measurement Standards (MPMS)* Chapter 15, *Guidelines for the Use of the International System of Units (SI) in the Petroleum and Allied Industries*

API *Manual of Petroleum Measurement Standards (MPMS)* Chapter 19.2, *Evaporative Loss from Floating-Roof Tanks*, 4th Edition

API *Manual of Petroleum Measurement Standards (MPMS)* Chapter 19.3, Part A, *Wind Tunnel Test Method for the Measurement of Deck-Fitting Loss Factors for External Floating-Roof Tanks*, 1st Edition

API *Manual of Petroleum Measurement Standards (MPMS)* Chapter 19.3, Part B, *Air Concentration Test Method for the Measurement of Rim-Seal Loss Factors for Floating-Roof Tanks*, 1st Edition

API *Manual of Petroleum Measurement Standards (MPMS)* Chapter 19.3, Part C, *Weight Loss Test Method for the Measurement of Rim-Seal Loss Factors for Internal Floating-Roof Tanks*, 1st Edition

API *Manual of Petroleum Measurement Standards (MPMS)* Chapter 19.3, Part D, *Fugitive Emission Test Method for the Measurement of Deck-Seam Loss Factors for Internal Floating-Roof Tanks*, 1st Edition

API *Manual of Petroleum Measurement Standards (MPMS)* Chapter 19.3, Part E, *Weight Loss Test Method for the Measurement of Deck-Fitting Loss Factors for Internal Floating-Roof Tanks*, 1st Edition

API Publication 2517D, *Documentation File for API Publication 2517—Evaporation Loss from External Floating-Roof Tanks, 1st Edition*