

# **Manual of Petroleum Measurement Standards Chapter 17.8**

## **Guidelines for Pre-loading Inspection of Marine Vessel Cargo Tanks and Their Cargo-handling Systems**

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## **Introduction**

The shipment of crude oil, petroleum products, and petrochemicals requires stringent quality control during the loading, transport, and discharge operations. Consequently, it is important to determine whether the vessel's tanks, vessel lines, and the associated cargo-handling system are sufficiently clean so that the intended cargo will not be contaminated.

Cargoes of crude oil, petroleum, and petrochemicals have varying tolerances regarding the extent to which they are affected by on board quantities or residues after tank cleaning operations. These guidelines for pre-loading inspection of a vessel's cargo-handling system are intended to minimize the risk of contaminating the cargo to be loaded.

For vegetable oils and fats, refer to *FOSFA Qualifications and Operational Procedures for Ships Engaged in the Carriage of Oils and Fats in Bulk for Edible and Oleo-Chemical Use*.

Tank inspection activities performed on board a vessel shall be performed in the presence of, or with the express permission of, the vessel's master, cargo officer, or other appropriate authority. For safety reasons, only appropriate and intrinsically safe equipment shall be used.

# Guidelines for Pre-loading Inspection of Marine Vessel Cargo Tanks and Their Cargo-handling Systems

## 1 Scope

These guidelines specify procedures for determining that the cargo tanks and associated cargo-handling system of marine vessels are in a suitably clean condition to receive the intended cargo. This applies to the loading of crude oil, petroleum products, and petrochemical cargoes. The extent of pre-loading inspection will vary depending on the nature of the cargo to be loaded. These guidelines recommend the extent of inspection that should be instituted for certain general types of cargoes and an example of a format that may be used for reporting the findings of tank inspections. Because of the wide variety of conditions that may exist when performing pre-loading tank inspections, this guideline is not intended to restrict the judgment of the person performing the inspection.

## 2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

*API Manual of Petroleum Measurement Standards (MPMS) Chapter 8.1, Standard Practice for Manual Sampling of Petroleum and Petroleum Products*

*API Manual of Petroleum Measurement Standards (MPMS) Chapter 17.1, Guidelines for Marine Inspection*

*API Manual of Petroleum Measurement Standards (MPMS) Chapter 17.4, Method for Quantification of Small Volumes on Marine Vessels (OBQ/ROB)*

*API Manual of Petroleum Measurement Standards (MPMS) Chapter 17.11, Measurement and Sampling of Cargoes On Board Tank Vessels Using Closed and Restricted Equipment*

ASTM D329<sup>1</sup>, *Standard Specification for Acetone*

ASTM D1152, *Standard Specification for Methanol (Methyl Alcohol)*

ASTM D1193, *Standard Specification for Reagent Water*

ASTM D1209, *Standard Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)*

ASTM D1722, *Standard Test Method for Water Miscibility of Water-Soluble Solvents*

ISGOTT/OCIMF<sup>2</sup>, *International Safety Guide for Oil Tankers and Terminals*

## 3 Terms, Definitions, Acronyms, and Abbreviations

### 3.1 Terms and Definitions

For the purposes of this document, the following definitions apply.

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<sup>1</sup> ASTM International, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428, [www.astm.org](http://www.astm.org).

<sup>2</sup> Oil Companies International Marine Forum, 29 Queen Anne's Gate, London, SW1H 9BU, United Kingdom, [www.ocimf.com](http://www.ocimf.com).