

Overfill Prevention for Storage Tanks in Petroleum Facilities

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

Contents

	Page
1 Scope	1
1.1 Scope	1
1.2 Minimum Requirements	1
2 Normative References	1
3 Terms, Definitions, and Acronyms	2
3.1 Terms and Definition	2
3.2 Acronyms	6
4 Overfill Prevention System (OPS)	7
4.1 Overview	7
4.2 Requirements for the Management System	8
4.3 Requirements for Risk Assessment	9
4.4 Defining Operating Parameters	10
4.5 Requirements for Overfill Prevention System (OPS) Procedures	14
5 Overfill Prevention Systems	20
5.1 Types of Overfill Prevention Systems	20
5.2 Tank Category Criteria	21
5.3 Instruments and Equipment Used for Overfill Prevention	22
Annex A (normative) Automated Overfill Prevention Systems (AOPS)	26
Annex B (informative) Management Systems (deleted)	30
Annex C (informative) Liquid Level Instrumentation Considerations	31
Annex D (informative) Determining Levels of Concern and Tank Capacity	33
Annex E (informative) Risk Assessment	44
Annex F (informative) Transporter/Owner/Operator Interface	52
Annex G (normative, if used) Tank Categories	55
Annex H (informative) Proof Testing	62
Bibliography	64
Figures	
1 Tank Levels of Concern (LOCs)	11
A.1 AOPS Fail Safe Design and AOPS Valve Loss of Motive Power Alarm	28
D.1 Example 1 Tank Information	35
D.2 Example 2 Tank Information	37
D.3 Example 3 Tank Information	40
E.1 Risk Matrix Example from API 353	48
E.2 Event Tree Model	49
F.1 Delivery to a Third-party Facility via Pipeline	52
F.2 Multiple Concurrent Third-party Operations	53
F.3 Marine Inbound Operations	53
F.4 Data Transfer Between Parties	54
G.1 Illustration of Categories Applied to Overfill Prevention Systems	57
G.2 Illustration of Category 0	58
G.3 Illustration of Category 1 Overfill Prevention Systems	59

Contents

	Page
G.4 Illustration of Category 2 Applied to Overfill Prevention Systems.....	60
G.5 Illustration of Category 3 Applied to Overfill Prevention Systems.....	61
H.1 Modes of Proof Testing	63

Tables

1 Minimum High-High (HH) Response Time	13
2 Monitoring Product During Receipt.	21
C.1 Commonly Used Types of Liquid Level Sensors.....	32
D.1 Example 1 Tank Measurements.....	35
D.2 Example 2 Tank Measurements.....	37
D.3 Example 3 Tank Measurements.....	40
G.1 Tank Categories.....	56

Overfill Prevention for Atmospheric Storage Tanks in Petroleum Facilities

1 Scope

1.1 Scope

This document applies to atmospheric storage tanks associated with refining, marketing, pipeline, and terminals that contain NFPA Class I or Class II liquids. This standard does not apply to:

- tanks of 1320 US gallons (5000 liters) or less, unless connected to a transporter or marine delivery system;
- tanks that are covered by PEI RP 600;
- tanks filled exclusively from wheeled vehicles (i.e. tank trucks or railroad tank cars), where the fill rate is less than 630 bbl/hr (440 gpm) (100m³/hour);
- dedicated pipeline relief tanks; and
- tanks storing LPG and LNG.

The purpose of this standard is to assist owner/operators and operating personnel in the prevention of tank overfilling by implementation of a comprehensive overfill prevention system (OPS). The goal is to receive product into the intended storage tank without overfilling or mechanical damage.

1.2 Minimum Requirements

This standard is one of minimum requirements. Alternate approaches or variations on the principles of this standard that provide equivalent or more robust overfill prevention are acceptable. Alternate approaches may be needed when the tank system varies from the typical configurations described in this standard. The rationale for the implementation of each overfill prevention process (OPP) should be documented and retained by the owner/operator. This standard is not intended to prevent the use of systems, methods, or devices of equivalent or superior quality, effectiveness, durability, and safety over those provided in this standard. Where the rules in API 2350 conflict with local, state, or federal regulations, the regulations shall take precedence over API 2350. In the event that there are conflicts, the more stringent of API 2350 or the regulations shall be applied.

2 Normative References

The following referenced documents are necessary 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 MPMS Chapter 3.1A, *Standard Practice for the Manual Gauging of Petroleum and Petroleum Products*

API MPMS Chapter 3.1B, *Standard Practice for Level Measurement of Liquid Hydrocarbons in Stationary Tanks by Automatic Tank Gauging*

IEC 61511¹, *Functional Safety – Safety instrumented systems for the process industry sector – Part 1: Framework definitions, system, hardware, and software requirements* (This document is only classified as normative when chosen as an option by the owner/operator.)

Other references in the document, including those in the Bibliography, are provided for information only and are not normative to this standard.

¹ International Electrotechnical Commission, 3 rue de Varembe, PO Box 131, CH-1211 Geneva 20 Switzerland, www.iec.ch.