



If you have any questions or comments regarding API standards, please visit <https://www.api.org/products-and-services/standards>

NOTE Free publications with an asterisk are subject to a \$10.00 handling charge for each total order, plus actual shipping charges.

## GENERAL

### Publ 1593

#### Gasoline Marketing in the United States Today

Provides information on motor fuel and gasoline consumption, U.S. motor fuel distribution, the U.S. gasoline pricing system, motor gasoline prices and taxes, the number/configuration of retail gasoline outlets, and employment/productivity in the retail gasoline distribution industry. Pages: 77

3rd Edition | May 1992 | Product Number: A15930 | Price: \$124.00

### Publ 1673

#### Compilation of Air Emission for Petroleum Distribution Dispensing Facilities

Compiles the most widely accepted, available emission factors and emission estimation techniques for developing air emission estimates from evaporative loss sources of petroleum products at marketing and distribution facilities. These losses can occur from transfer and storage operations and fugitive equipment leaks and spillage. Pages: 29

2nd Edition | July 2009 | Product Number: A16732 | Price: \$88.00

## AVIATION

### RP 1543

#### Documentation, Monitoring and Laboratory Testing of Aviation Fuel During Shipment from Refinery to Airport

Aviation fuels pass through a variety of storage and handling facilities, from refinery to airport. As aviation fuels are stored and transported in storage and transportation systems where contact with non-aviation products may occur, a fuel quality monitoring program is required, in addition to equipment, operating, inspection and maintenance standards. The purpose of this practice is to ensure the fuel remains on specification. This recommended practice (RP) was written to provide guidance on the development of an aviation fuel monitoring and testing program (fuel quality monitoring program) for aviation fuel from point of manufacture to delivery to the airport. "Proper handling" entails documenting and testing aviation fuel quality as product is transported throughout the supply chain to maintain the original product specification. Pages: 25

1st Edition | July 2009 | Reaffirmed: April 2019

Product Number: A154301 | Price: \$65.00

### RP 1595

#### Design, Construction, Operation, Maintenance, and Inspection of Aviation Pre-Airfield Storage Terminals

Contains basic requirements for the design, construction, operation, and maintenance of pre-airfield storage terminals located directly upstream of the airport, hereafter referred to as "pre-airfield storage terminals." This recommended practice provides guidance on the minimum equipment standards and operating procedures for the receipt and storage of aviation fuels at pre-airfield storage terminals, located directly upstream of the airport, and its shipment directly via a grade-dedicated pipeline, marine vessel (barge or ship), or road/rail transport to an airport. This RP does not address in-transit or breakout storage upstream of the pre-airfield storage terminal. The design and construction provisions of this standard are intended for application at new facilities. Application of the design and construction provisions of this standard to facilities, equipment, structures, or installations that are already in place, that are in the process of construction or that are installed before the date of this publication, should be evaluated when circumstances merit. Such an evaluation should consider the site-specific circumstances and detailed accounting for both the potential and tolerance for risk, existing conditions at the installation, and overall benefit for applying the required design and

construction provisions. The operation, sampling, testing, and maintenance provisions in the various sections of this standard shall apply to both new and existing installations. Pages: 75

2nd Edition | October 2012 | Reaffirmed: April 2019

Product Number: C159502 | Price: \$251.00

#### As of 2010, API does not maintain or distribute the following aviation fuel equipment related documents:

### EI 1529

#### Aviation Fuelling Hose

### EI 1540

#### Design, Construction, Operation and Maintenance of Aviation Fueling Facilities, IP Model Code of Safe Practice Part 7

### EI 1542

#### Identification Markings for Dedicated Aviation Fuel Manufacturing and Distribution Facilities, Airport Storage and Mobile Fuelling Equipment

### EI 1550

#### Handbook on Equipment Used for the Maintenance and Delivery of Clean Aviation Fuel

### EI 1581

#### Specification and Qualification Procedures for Aviation Jet Fuel Filter/Separators

### EI 1582

#### Specification for Similarity for API/EI 1581 Aviation Jet Fuel Filter/Separators

### EI 1584

#### Four-Inch Aviation Hydrant System Components and Arrangements

### EI 1585

#### Guidance in the Cleaning of Aviation Fuel Hydrant Systems at Airports

### EI 1590

#### Specifications and Qualification Procedures for Aviation Fuel Microfilters

### EI 1594

#### Initial Pressure Strength Testing of Airport Fuel Hydrant Systems with Water

### EI 1596

#### Design and Construction of Aviation Fuel Filter Vessels

### EI 1597

#### Procedures for Overwing Fuelling to Ensure Delivery of the Correct Fuel Grade to an Aircraft

### EI 1598

#### Considerations for Electronic Sensors to Monitor Free Water and/or Particulate Matter in Aviation Fuel

### EI 1599

#### Laboratory Tests and Minimum Performance Levels for Aviation Fuel Dirt Defense Filters

The documents listed above are maintained and distributed by the Energy Institute. For ordering information, please refer to the following website: <https://publishing.energyinst.org/>

## MARKETING OPERATIONS

### RP 1525 ♦

#### Bulk Oil Testing, Handling, and Storage Guidelines

Provides recommended equipment and procedures for the proper handling of incoming and outgoing shipments of lubricants to prevent contamination and spillage, and to protect product quality. The guidelines cover receipt, storage, packaging, and shipment of finished lubricants in bulk or packaged goods ranging from Intermediate Bulk Containers (IBCs) to pails. A log (whether electronic or hardcopy) detailing incoming and outgoing shipments is recommended and may be mandatory in some jurisdictions. Pages: 37

2nd Edition | June 2021 | Product Number: F15252

You may download a PDF of this document from <https://www.api.org/products-and-services/engine-oil/documents/1525-guidelines>

### API 1525A

#### Bulk Engine Oil Chain of Custody and Quality Documentation

Provides procedures for managing bulk engine oil chain of custody to ensure oil quality from the point of manufacture to installation in the end user's engine. The procedures specifically address the following key topics: Bulk Engine Oil Provider (BEOP) practices; the ordering of oils meeting API 1509; chain-of-custody documentation that identifies bulk engine oil throughout the supply system; and requirements for informing consumers about the types of engine oil available for installation and requirements for notification (written and/or electronic) and labeling of the oil installed in mobile equipment engines. Pages: 19

2nd Edition | November 2021 | Product Number: F1525A2

You may download a PDF of this document from <https://www.api.org/products-and-services/engine-oil/documents/api-1525a>

### RP 1604

#### Closure of Underground Petroleum Storage Tanks

Provides operating procedures that may be used for the abandonment, removal, storage, temporarily-out-of-service, and sale of used underground tanks that have contained gasoline or other flammable liquids. Pages: 22

4th Edition | February 2021 | Product Number: A16044 | Price: \$90.00

### RP 1615

#### Installation of Underground Petroleum Storage Systems

Guide to procedures and equipment that should be used for the proper installation of underground storage systems for bulk petroleum products or used oil at retail and commercial facilities. The stored products include gasoline, diesel fuel, kerosene, lubricating oils, used oil, and certain bio-fuel blends. This RP is intended for use by architects, engineers, tank owners, tank operators, and contractors. Contractors, engineers, and owners or operators who are preparing to design or install an UST system should investigate the federal, state, and local requirements and current methods of compliance for vapor recovery in that region. Vapor recovery is covered in detail in Section 17 of this document. This RP is not intended to cover specialized installations, such as fuel storage systems at marinas or airports, heating oil storage systems (either residential or bulk), or systems installed inside buildings. However, it does outline recognized and generally accepted good engineering practices that may be of use for these specialized installations. This RP does not apply to the installation of below ground or above ground bulk storage systems greater than 60,000 gallons. Pages: 89

6th Edition | April 2011 | Reaffirmed: May 2020

Product Number: A16156 | Price: \$222.00

### RP 1621

#### Bulk Liquid Stock Control at Retail Outlets

Primarily applies to underground storage of motor fuels and used oil at retail and commercial facilities. It assists the operator in controlling bulk stock losses, thereby achieving a high level of safety and pollution control, while maximizing profits. Pages: 25

5th Edition | May 1993 | Reaffirmed: May 2020

Product Number: A16210 | Price: \$90.00

### RP 1626

#### Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations (includes Errata 1 dated February 2011)

Describes recommended practices for the storing, handling, and fire protection of ethanol and gasoline-ethanol blends from E1 to E10 and from E70 to E100 (used for E85) at distribution terminals and filling stations. Where information exists for gasoline-ethanol blends from E11 to E15, it is shared. Recommended practices for E16 through E69 are not covered because currently these blends are not legal gasoline blends or alternative fuels. There is a general lack of information on the properties of these blends and there are currently no filling station components certified by any nationally recognized testing laboratory for these blends. Pages: 59

2nd Edition | August 2010 | Reaffirmed: May 2020

Product Number: A16262 | Price: \$168.00

### Std 1631

#### Interior Lining and Periodic Inspection of Underground Storage Tanks

Provides minimum recommendations for the interior lining of existing steel and fiberglass reinforced plastic underground tanks used to store petroleum-based motor fuels and middle distillates. Recommendations and procedures to be followed by contractors, mechanics, and engineers are presented. Methods for vapor-freeing tanks, removing sediment, and cleaning interior surfaces of steel and fiberglass tanks are also presented, as are guidelines for identifying tanks that may be lined. The methods described in this standard are applicable to steel and fiberglass-reinforced plastic tanks used for the storage of petroleum-based motor fuels and middle distillates. The procedures are applicable to tanks installed in typical retail service station outlets, but may also be used for tanks installed at other types of facilities. Pages: 25

5th Edition | June 2001 | Reaffirmed: May 2020

Product Number: A16315 | Price: \$94.00

### RP 1637

#### Using the API Color-Symbol System to Identify Equipment, Vehicles, and Transfer Points for Petroleum Fuels and Related Products at Dispensing and Storage Facilities and Distribution Terminals

Describes a system for marking equipment used to store and handle bulk petroleum, alcohol-blended petroleum and biodiesel products. The marking system described in this recommended practice does not cover aviation fuels. Marking systems for aviation fuels are described in API/IP Std 1542. Pages: 22

4th Edition | April 2020 | Product Number: A16374 | Price: \$79.00

## Marketing

To purchase individual API standards, visit [apiwebstore.org](http://apiwebstore.org)

### RP 1639

#### Owner/Operator's Guide to Operation and Maintenance of Vapor Recovery Systems at Gasoline Dispensing Facilities

Provides guidance for owners and operators of gasoline dispensing facilities and regulatory officials regarding the operation and maintenance of gasoline vapor recovery systems and components. Proper operation and maintenance of the equipment can improve compliance with vapor recovery regulations and provide substantial emission reductions. This guide does not address the maintenance required qualified service technicians. Pages: 22

1st Edition | July 2003 | Reaffirmed: May 2020

Product Number: A16391 | Price: \$94.00

### RP 1640

#### Product Quality in Light Product Storage and Handling Operations

Assists those involved in fuel handling at distribution and intermediate storage facilities. This publication provides guidance on the minimum equipment standards and operating procedures for the receipt, storage, blending, and delivery of light products, their blend components, and additives at distribution and intermediate storage terminals, including related operations of pipeline, marine vessel (barge or ship), and road/rail transport. This recommended practice also covers the minimum equipment standards and operating procedures for the receipt, storage, and blending of light products, including but not limited to gasoline, kerosene, diesel, heating oil, and their blend components (i.e. ethanol, biodiesel, and butane) at distribution and storage terminals, as well as light product shipments directly via a pipeline, marine vessel (barge or ship) or road and rail transport. Pages: 85

2nd Edition | February 2021 | Product Number: A164002 | Price: \$226.00

### Publ 1642

#### Alcohol, Ethers, and Gasoline-Alcohol and -Ether Blends

Examines fire safety considerations at petroleum marketing facilities. Focuses on gasoline blended with oxygenates, and M85, but also includes alcohols and ethers because they may be present at terminals and bulk plants for blending purposes. Pages: 12

1st Edition | February 1996 | Product Number: A16421 | Price: \$66.00

### Publ 1645

#### Stage II Cost Study

Addresses the general installation cost information for three different types of retail gasoline outlet (RGO) vapor recovery systems: vapor balance, passive vacuum assist, and active vacuum assist. Additionally, it provides an overview of how each system operates. Pages: 6

1st Edition | August 2002 | Product Number: A16451 | Price: \$62.00

### RP 1646

#### Safe Work Practices for Contractors Working at Retail Petroleum/Convenience Facilities

Provides the recommended minimum safety procedures for working at retail petroleum/convenience facilities and is a key component of the API WorkSafe Program. It also details how to develop a task specific Job Safety Analysis that should be completed before any work may begin. This document also provides the user with a general awareness of safety issues associated with maintenance and construction work at retail petroleum/convenience facilities, including service stations. It also highlights many of the Federal OSHA requirements that may apply to maintenance and construction work in the retail petroleum/convenience business. Pages: 84

2nd Edition | May 2017 | Reaffirmed: September 2022

Product Number: A164602 | Price: \$159.00

### RP 1646 \*

#### Safe Work Practices for Contractors Working at Retail Petroleum/Convenience Facilities—Spanish

Spanish translation of RP 1646.

2nd Edition | May 2017 | Reaffirmed: September 2022

Product Number: A164602S | Price: \$159.00

### Std 2610

#### Design, Construction, Operation, Maintenance, and Inspection of Terminal and Tank Facilities

Guides the management of terminals and tanks in a manner that protects the environment and the safety of workers and the public. This standard is intended for petroleum terminal and tank facilities associated with marketing, refining, pipeline, and other similar facilities. This standard may be used as a resource and management guide by those responsible for such facilities and by those working on their behalf. This standard is a compilation of industry knowledge, information, and management practices for all relevant aspects of terminal and tank operations aggregated into an overview document comprising best practices. Pages: 100

3rd Edition | September 2018 | Product Number: C26103 | Price: \$192.00

## USED OIL

### A Guidebook for Implementing Curbside and Drop-Off Used Motor Oil Collection Programs

Designed to help municipal managers and regulators evaluate the types of available programs (either curbside or drop-off programs, including examples of both), and how to effectively implement these used oil recycling programs. It is based on national surveys of existing programs throughout the country and includes examples of budgets, procedures, equipment, and model programs that are currently underway. Pages: 47

1st Edition | February 1992 | Product Number: B20002 | Price: Free

### Publ 1830

#### National Used Oil Collection Study

Reviews the status of used engine oil collection in the United States. Documents state efforts to collect oil and the outcomes of such efforts. Provides examples of how used oil collection can be successful, as well as warning of the pitfalls that should be avoided, based on the experience of other states. Pages: 248

1st Edition | June 1996 | Product Number: B18301 | Price: \$63.00

### Publ 1835 ♦

#### Study of Used Motor Oil Recycling in Eleven Selected Countries

The study described in this report obtained information about used motor oil collection and recycling programs in 11 selected countries around the world. Pages: 55

1st Edition | November 1997 | Product Number: B18351 | Price: \$65.00

## TANK TRUCK OPERATIONS

### For Safety's Sake—MC 306 Cargo Tank Vehicle Inspection

This VHS tape provides a step-by-step approach to pre- and post-trip inspection of MC 306 cargo tank vehicles. The tape follows a driver through an actual walk-around inspection and covers driver recordkeeping and the inspection itself—brakes, lights, mirrors, tires, wiring, the tank, and placards. Also includes common truck defects. The videotape was prepared under the direction of the API Highway Safety Committee and parallels the U.S. Department of Transportation's truck inspection regulations. Two minutes of blank leader is provided on the tape so that it can be customized to fit company training needs. VHS tape: 14 minutes. Pages: 65

January 1989 | Product Number: A11500 | Price: \$112.00

\*These translated versions are provided for the convenience of our customers and are not officially endorsed by API. The translated versions shall neither replace nor supersede the English-language versions, which remain the official standards. API shall not be responsible for any discrepancies or interpretations of these translations. Translations may not include any addenda or errata to the document. Please check the English-language versions for any updates to the documents.

# Marketing

To purchase individual API standards, visit [apiwebstore.org](https://www.apiwebstore.org)

## RP 1004

### Bottom Loading and Vapor Recovery for MC-306 & DOT-406 Tank Motor Vehicles

Provides an industry standard for bottom loading and vapor recovery of proprietary and hired carrier DOT MC-306 tank vehicles at terminals operated by more than one supplier. Guides the manufacturer and operator of a tank vehicle as to the uniform features that should be provided to permit loading of a tank vehicle with a standard 4-in. adapter. This edition of RP 1004 requires an independent secondary control system and maximum requirements for outage in the tank to allow the secondary control system to function. Pages: 21

8th Edition | January 2003 | Reaffirmed: February 2011

2-Year Extension: January 2018

Product Number: A10048 | Price: \$120.00

## RP 1007

### Loading and Unloading of MC 306/DOT 406 Cargo Tank Motor Vehicles

Ensuring the safe and efficient loading and delivery of petroleum products to retail service stations and bulk facilities is the primary goal for all companies that transport product. This document is a guideline for use by the truck driver and persons responsible for loading and unloading of MC306/DOT406 cargo tanks. It identifies specific steps to ensure that product can be loaded into tank trucks and unloaded into both underground and aboveground storage tanks in a safe and efficient manner that protects the environment. It is intended to be used in conjunction with existing driver training programs and procedures. Pages: 24

1st Edition | March 2001 | Reaffirmed: February 2011

2-Year Extension: January 2018

Product Number: A10071 | Price: \$42.00

## RP 1112

### Developing a Highway Emergency Response Plan for Incidents Involving Hazardous Materials

Provides minimum guidelines for developing an emergency response plan for incidents involving hazardous liquid hydrocarbons, such as gasoline and crude oil, transported in MC 306/DOT 406 and MC 307/DOT 407 aluminum cargo tanks, and for coordinating and cooperating with local, state, and federal officials. Covers response plan priorities, personnel training, special equipment, media relations, environmental relations, and post-response activities. The appendixes outline a highway emergency response plan and suggest a procedure for removing liquid hydrocarbons from overturned cargo tanks and righting the tank vehicles. Pages: 21

3rd Edition | November 1997 | Reaffirmed: February 2011

2-Year Extension: January 2018

Product Number: A11123 | Price: \$82.00

## MOTOR OILS AND LUBRICANTS

### Motor Oil Shelf Cards ♦

This two-page laminated guide helps consumers understand the API Engine Oil Quality Marks—the API Certification Mark, “Starburst,” and Service Symbol, “Donut,” and the API Service Categories. Shelf Cards are available in English and Spanish and can be personalized with a company logo. For information on personalizing the shelf cards, call 202-682-8156.

Single copies free on request from API [eolcs@api.org or (202)-682-8516]

## API 1509 ♦

### Engine Oil Licensing and Certification System

Describes the API Engine Oil Licensing and Certification System (EOLCS), a voluntary licensing and certification program designed to define, certify, and monitor engine oil performance deemed necessary for satisfactory equipment life and performance by vehicle and engine manufacturers.

22nd Edition | February 2022 | For a free copy of this document, please visit <https://www.api.org/products-and-services/engine-oil/documents/api-1509-documents>

## API 1509 \*

### Engine Oil Licensing and Certification System—Chinese

Chinese translation of API 1509.

21st Edition | February 2022 | For a free copy of this document, please visit <https://www.api.org/products-and-services/engine-oil/documents/api-1509-documents>

## API 1509 \*

### Engine Oil Licensing and Certification System—Portuguese

Portuguese translation of API 1509.

21st Edition | February 2022 | For a free copy of this document, please visit <https://www.api.org/products-and-services/engine-oil/documents/api-1509-documents>

## API 1509 \*

### Engine Oil Licensing and Certification System—Spanish

Spanish translation of API 1509.

21st Edition | February 2022 | For a free copy of this document, please visit <https://www.api.org/products-and-services/engine-oil/documents/api-1509-documents>

## Publ 1520 ♦

### Directory of Licensees: API Engine Oil Licensing and Certification System

Identifies the companies licensed to display the API Engine Oil Licensing and Certification System (EOLCS) Symbols.

This directory can be accessed only through API's website, <https://www.api.org/products-and-services/engine-oil/eolcs-categories-and-documents/documents/publication-1520>

## DIESEL FUEL

## Publ 1571

### Diesel Fuel—Questions and Answers for Highway and Off-Highway Use

Provides answers to some of the frequent questions asked about diesel fuel. Included are explanations of the quality features of diesel fuel and their significance, descriptions of diesel fuel classifications, discussions of additives normally used and their purposes, and explanations of factors that can affect performance. Pages: 20

4th Edition | January 1996 | Product Number: F15714 | Price: \$140.00

\*These translated versions are provided for the convenience of our customers and are not officially endorsed by API. The translated versions shall neither replace nor supersede the English-language versions, which remain the official standards. API shall not be responsible for any discrepancies or interpretations of these translations. Translations may not include any addenda or errata to the document. Please check the English-language versions for any updates to the documents.

# Marketing

To purchase individual API standards, visit [apiwebstore.org](http://apiwebstore.org)

## HEALTH, ENVIRONMENT, AND SAFETY: GENERAL

### Std 2350

#### Overfill Protection for Storage Tanks in Petroleum Facilities (includes Errata 1 dated April 2021) (ANSI/API Std 2350)

Applies to storage tanks associated with marketing, refining, pipeline, and terminals operations and with tanks containing Class I or Class II petroleum liquids and use is recommended for Class III petroleum liquids. This standard addresses overfill protection for petroleum storage tanks. It recognizes that prevention provides the most basic level of protection, thus while using both terms "protection" and "prevention," the document emphasizes prevention. The standard's scope covers overfill (and damage) prevention practices for aboveground storage tanks in petroleum facilities, including refineries, marketing terminals, bulk plants, and pipeline terminals that receive flammable and combustible liquids. The fourth edition continues to build on experience and new technology through the use of management systems. Since operations are the primary overfill prevention safeguard, new definitions and requirements are established for alarms. Risk reduction is also addressed by current and generally accepted industry practices.

The essential elements of this document are based on current industry safe operating practices and existing consensus standards. Federal, state, and local regulations or laws may contain additional requirements for tank overfill protection programs. For existing facilities, the results of a risk-based analysis of aboveground atmospheric petroleum storage tanks may indicate the need for more protection against overfilling. In such cases, some provisions from this standard may be suitable.

The purpose of this standard is to assist owner/operators and operating personnel in the prevention of tank overfills by implementation of a comprehensive overfill prevention process (OPP). The goal is to receive product into the intended storage tank without overfill or loss of containment.

This standard does not apply to: underground storage tanks; aboveground tanks of 1320 U.S. gallons (5000 liters) or less; aboveground tanks which comply with PEI 600; pressure vessels; tanks containing non-petroleum liquids; tanks storing LPG and LNG; tanks at service stations; tanks filled exclusively from wheeled vehicles (i.e. tank trucks or railroad tank cars); and tanks covered by OSHA 29 CFR 1910.119 and EPA 40 CFR 68, or similar regulations. Pages: 75

5th Edition | September 2020

Product Number: K235005 | Price: \$135.00

## HEALTH, ENVIRONMENT, AND SAFETY: WASTE

### Publ 1638

#### Waste Management Practices for Petroleum Marketing Facilities

Provides specific guidance for managing typical waste streams at petroleum marketing facilities. This publication covers petroleum marketing facilities ranging from retail fuel convenience stores to terminals and lube plants. Pages: 20

1st Edition | October 1994 | Product Number: A16381 | Price: \$82.00

## HEALTH, ENVIRONMENT, AND SAFETY: WATER

### Publ 1612

#### Guidance Document for Discharging of Petroleum Distribution Terminal Effluents to Publicly Owned Treatment Works

Provides terminal managers with guidance on discharging terminal effluents to publicly owned treatment works (POTWs). Covers relations with POTW personnel, POTW concerns in accepting terminals wastewater, pretreatment regulations and local limits on the discharge of wastewaters to POTWs, and associated costs. Pages: 34

1st Edition | November 1996 | Product Number: A16121 | Price: \$105.00

### Publ 1669

#### Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff Study

Presents the findings of a study to characterize storm water runoff from retail gasoline outlets and compares the results with runoff from commercial parking lots and published urban "background" values. Funded by the Western States Petroleum Association (WSPA) and the American Petroleum Institute (API), the results of this study indicate that fueling activities at normally operated and maintained retail gasoline outlets do not contribute additional significant concentrations of measured constituents in storm water runoff. Pages: 24

1st Edition | December 1994 | Product Number: A16691 | Price: \$90.00

## HEALTH, ENVIRONMENT, AND SAFETY: SOIL AND GROUNDWATER

### Publ 1628

#### A Guide to the Assessment and Remediation of Underground Petroleum Releases

Provides an overview of proven technologies for the assessment and remediation of petroleum releases in soil and groundwater. Covers accidental releases arising from the production, transportation, refining, and marketing of liquid petroleum products or unrefined crude oil. Pages: 119

3rd Edition | July 1996 | Product Number: A16283 | Price: \$177.00

Publ 1628 and its five companion publications (1628A, 1628B, 1628C, 1628D, and 1628E) may be purchased as a set.

Order Number: A1628S | Price: \$350.00

### Publ 1628A

#### Natural Attenuation Processes

Describes the physical, chemical, and biological processes that decrease the concentrations and ultimately limit the extent of the dissolved plume migrating from a hydrocarbon release. Pages: 16

1st Edition | July 1996 | Product Number: A1628A | Price: \$64.00

### Publ 1628B

#### Risk-Based Decision Making

Discusses risk-based decision making approaches used for the assessment of hazardous conditions. Also presents information that can be utilized to focus remedial measures and funds on petroleum hydrocarbon release sites while being protective of human health and the environment, and to facilitate timely closure of hydrocarbon-impacted sites. Pages: 13

1st Edition | July 1996 | Product Number: A1628B | Price: \$64.00

### Publ 1628C

#### Optimization of Hydrocarbon Recovery

Covers the optimization, in its broadest sense, to achieve an environmentally sound site closure in the appropriate timeframe for the least cost (to maximize efficiency of the selected system). Pages: 20

1st Edition | July 1996 | Product Number: A1628C | Price: \$65.00

### Publ 1628D

#### In-Situ Air Sparging

Addresses in-situ air sparging. Covers remediation technologies, starting with the early techniques of containment or mass reduction through today's very aggressive site closure techniques. Addresses containment as well as residual petroleum hydrocarbon compounds. Pages: 13

1st Edition | July 1996 | Product Number: A1628D | Price: \$65.00

## Marketing

---

To purchase individual API standards, visit [apiwebstore.org](http://apiwebstore.org)

---

### Publ 1628E

#### Operation and Maintenance Considerations for Hydrocarbon Remediation Systems

Discusses concepts regarding operation and maintenance procedures necessary to achieve and maintain optimal performance of petroleum hydrocarbon remediation systems. Pages: 23

1st Edition | July 1996 | Product Number: A1628E | Price: \$64.00

### Publ 1629

#### Guide for Assessing and Remediating Petroleum Hydrocarbons in Soils

This publication provides information regarding the site and release characteristics relevant to, and methods for assessing and remediating, soils contaminated with petroleum hydrocarbons released from underground or aboveground storage tank systems and operations. Developed to complement Publ 1628, which focuses primarily on assessing and remediating petroleum releases that may impact groundwater. Pages: 81

1st Edition | October 1993 | Product Number: A16290 | Price: \$163.00

## SECURITY

---

### Std 1164

#### Pipeline Control Systems Cybersecurity (includes Errata 1 dated August 2021)

Provides requirements and guidance for managing cyber risk associated with industrial automation and control (IAC) environments to achieve security, integrity, and resiliency objectives. This is accomplished through proper isolation of IAC environments from non-IAC environments to help IAC operational continuity. This standard is tailored for the oil and natural gas (ONG) pipeline industry, which includes, but is not limited to, natural gas and hazardous liquid transmission pipeline systems, natural gas distribution pipeline systems, liquefied natural gas (LNG) facilities, propane air facilities, and others involved in these industries. This standard was developed to provide an actionable approach to protect IAC essential functions by managing cybersecurity risk to IAC environments. IAC environments can include, but are not limited to, supervisory control and data acquisition (SCADA), local control, and industrial internet of things (IIoT) solutions. This standard should be used in the context of developing, implementing, maintaining, and improving an IAC cybersecurity program, which includes the policies, processes, and procedural and technical controls for IAC cyber environments. Pages: 142

3rd Edition | August 2021 | Product Number: D11043 | Price: \$198.00