easements, licenses or occupancy agreements are obtained.

A pipeline right-of-way (ROW) is property in which a pipeline company and a landowner both have a legal interest. Each has a right to be there, although each has a different type of use for the land. Pipeline companies are granted permission from private landowners to transport petroleum products across their private lands. That permission is documented in a written agreement called an easement, and it is obtained through purchase, license, or by negotiation. The document provides guidance on initial testing and an ongoing sampling and testing for assignment of PG.

This document applies only to petroleum crude oil classified as Hazard Class 3—Flammable Liquid under the U.S. Code of Federal Regulations (CFR) at the time of publication.

RP 3000 identifies criteria for determining the frequency of sampling and testing of petroleum crude oil for transport classification. It discusses how to establish a sampling and testing program and provides an example of such a program.

This document provides guidance on Packing Group (PG) assignment, including the potential effect of heel, and mixing of crude oils of differing PGs. The document provides guidance on initial testing and an ongoing sampling and testing for assignment of PG.

RP 3000 provides guidance on determining the loading target quantity (LTQ) of crude oil transported by rail tank car. This includes crude oil temperature and density determination, identification of sampling points based on loading scenarios, and measurement equipment and processes.

Guidance on the documentation of measurement results and record retention is also provided. Pages: 46

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**PIPOLINE PUBLIC EDUCATION AND AWARENESS**

API Guidelines for Right-of-Way Activities

Brochure

The liquid petroleum pipeline industry has developed these guidelines to improve understanding and increase awareness of the nature of underground pipelines that transport oil, petroleum products, natural gas liquids, and other hazardous liquids and how to conduct land development and use activity near pipeline rights of way.

The guidelines are intended for use by anyone who is involved in land development, agriculture and excavation/construction activities near a pipeline. The industry’s goal is to protect public safety of the people who live and work along pipeline rights of way, protect the environment along rights of way, and maintain the integrity of the pipeline so that petroleum products can be delivered to customers safely and without interruption.

A pipeline right-of-way (ROW) is property in which a pipeline company and a landowner both have a legal interest. Each has a right to be there, although each has a different type of use for the land. Pipeline companies are granted permission from private landowners to transport petroleum products across their private lands. That permission is documented in a written agreement called an easement, and it is obtained through purchase, license, or by agreement with the landowner. In cases where the land is owned by the government—whether local, state or federal—similar arrangements for easements, licenses or occupancy agreements are obtained.

A pipeline requires regular observation, integrity assessment and maintenance to maintain the safety of its operations. Part of that task is to ensure that the pipeline ROW is kept clear of trees, structures and other encroachments that might interfere with the safe operation of the pipeline and the pipeline company’s access to the line.

The pipeline industry hopes that these guidelines will help both pipeline operators and people working and living along pipeline rights of way to better understand their respective responsibilities for maintaining the safety of this vital, but invisible, transportation system.

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**PIPELINE OPERATIONS PUBLICATIONS**

RP 80 • Definition of Onshore Gas Gathering Lines

Developed by an industry coalition that included representatives from over 20 petroleum industry associations, this recommended practice provides a functional description of onshore gas gathering pipelines for the sole purpose of providing users with a practical guide for determining the application of the definition of gas gathering in the federal Gas Pipeline Safety Standards, 49 CFR Part 192, and state programs implementing these standards. Pages: 47

2nd Edition | March 2020 | Product Number: G80002 | Price: $111.00

RP 1102 Steel Pipelines Crossing Railroads and Highways


Covers the design, installation, inspection, and testing required to ensure safe crossings of steel pipelines under railroads and highways. The provisions apply to the design and construction of welded steel pipelines under railroads and highways. The provisions of this practice are formulated to protect the facility crossed by the pipeline, as well as to provide adequate design for safe installation and operation.

The provisions herein should be applicable to the construction of pipelines crossing under railroads and highways and to the adjustment of existing pipelines crossed by railroad or highway construction. This practice should not be applied retroactively. Neither should it apply to pipelines under contract for construction on or prior to the effective date of this edition. Neither should it be applied to directionally drilled crossings or to pipelines installed in utility tunnels. Pages: 64

7th Edition | December 2007 | Reaffirmed: December 2017 Product Number: D11021 | Price: $125.00

Std 1104 Welding of Pipelines and Related Facilities


Covers the gas and arc welding of butt, fillet, and socket welds in carbon and low-alloy steel piping used in the compression, pumping, and transmission of crude petroleum, petroleum products, fuel gases, carbon dioxide, nitrogen, and where applicable, covers welding on distribution systems. It applies to both new construction and in-service welding. The welding may be done by a shielded metal-arc welding, submerged arc welding, gas tungsten-arc welding, gas metal-arc welding, flux-cored arc welding, plasma arc welding, oxyacetylene welding, or flash butt welding process or by a combination of these processes using a manual, semiautomatic, mechanized, or automatic welding technique or a combination of these techniques. The welds may be produced by position or roll welding or by a combination of position and roll welding.

This standard also covers the procedures for radiographic, magnetic particle, liquid penetrant, and ultrasonic testing, as well as the acceptance standards to be applied to production welds tested to destruction or inspected by...
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.
RP 1115
Design and Operation of Solution-Mined Salt Cavens Used for Liquid Hydrocarbon Storage

Provides guidance on the design and operation of solution-mined underground hydrocarbon liquid or liquefied petroleum gas storage facilities. It is intended for cavern engineers, supervisors, and all persons involved in liquid cavern operations. This recommended practice is based on the accumulated knowledge and experience of geologists, engineers, and other personnel in the petroleum industry. All aspects of solution-mined liquid hydrocarbon underground storage design and operation are covered, including site selection, cavern development, cavern hydraulics, brine facilities, wellhead and hanging strings, cavern testing, and cavern abandonment. A section on risk management is included. Pages: 112
2nd Edition | November 2018 | Product Number: D11152 | Price: $164.00

RP 1117
Recommended Practice for Movement in In-Service Pipelines (includes Errata 1 dated December 2008 and Errata 2 dated August 2009)

Covers the design, execution, inspection, and safety of a pipeline-lowering or other movement operation conducted while the pipeline is in service. (In this document, the terms lowering and movement can be used interchangeably.) This recommended practice presents general guidelines for conducting a pipeline-movement operation without taking the pipeline out of service. It also presents equations for estimating the induced stresses. To promote the safety of the movement operation, it describes stress limits and procedures. Additionally, it offers recommendations to protect the pipeline against damage. The practicality and safety of trench types, support systems, and lowering or other methods are considered. Inspection procedures and limitations are presented. Pages: 46
3rd Edition | July 2008 | Reaffirmed: March 2018
Product Number: D11173 | Price: $143.00

RP 1130
Computational Pipeline Monitoring for Liquids

Focuses on the design, implementation, testing, and operation of CPM systems that use an algorithmic approach to detect hydraulic anomalies in pipeline operating parameters. The primary purpose of these systems is to provide tools that assist pipeline controllers in detecting commodity releases that are within the sensitivity of the algorithm. It is intended that the CPM system would provide an alarm and display other related data to the pipeline controllers to aid in decision-making. The pipeline controllers would undertake an immediate investigation, confirm the reason for the alarm and initiate an operational response to the hydraulic anomaly when it represents an irregular operating condition or abnormal operating condition or a commodity release. The purpose of this recommended practice is to assist the pipeline operator in identifying issues relevant to the selection, implementation, testing, and operation of a CPM system. Pages: 54
1st Edition | September 2007 | Reaffirmed: November 2017
Product Number: D011301 | Price: $121.00

RP 1133
Managing Hydrotechnical Hazards for Pipelines Located Onshore or Within Coastal Areas

Sets out criteria for the design, construction, operation, maintenance, and abandonment of onshore pipelines that could affect high consequence floodplains and associated commercially navigable waterways. This document applies only to steel pipelines that transport gas, hazardous liquids, alcohols or carbon dioxide. The design, construction, inspection, and testing provisions of this document should not apply to pipelines that were designed or installed prior to the latest revision of this publication. The operation and maintenance provisions of this document should apply to existing facilities. The contents in this document should not be considered a fixed rule for application without regard to sound engineering judgment. Pages: 94
2nd Edition | December 2017 | Product Number: D11332 | Price: $176.00

TR 1149
Pipeline Variable Uncertainties and Their Effects on Leak Detectability

Describes procedures for predicting uncertainties in the detection of leaks in pipelines using computational methods based upon physical hydraulic state measurements. This class of pipeline leak detection methods is commonly called Computational Pipeline Monitoring (CPM). Pages: 160
2nd Edition | September 2015 | Product Number: D11492 | Price: $179.00

RP 1160
Managing System Integrity for Hazardous Liquid Pipelines

Outlines a process that an operator of a pipeline system can use to assess risks and make decisions about risks in order to reduce incidents and the adverse effects of errors and incidents.

An integrity management program provides a means to improve the safety of pipeline systems and to allocate operator resources effectively to: Identify and analyze actual and potential precursor events that can result in incidents; examine the likelihood and potential severity of incidents; provide a comprehensive and integrated means for examining and comparing the spectrum of risks and risk reduction activities available; provide a structured, easily communicated means for selecting and implementing risk reduction activities; and establish and track system performance with the goal of improving that performance.

This recommended practice (RP) is specifically designed to provide the operator with a description of industry-proven practices in pipeline integrity management.

The RP is largely targeted to onshore pipelines along the right-of-way, but the process and approach can be applied to pipeline facilities, including pipeline stations, terminals, and delivery facilities associated with pipeline systems. Pages: 137
3rd Edition | February 2019
Product Number: D116003 | Price: $215.00

RP 1161
Recommended Practice for Pipeline Operator Qualification (QO)

Provides guidance to the liquids pipeline industry. The U.S. Department of Transportation (DOT) requires that pipeline operators develop a written qualification program to evaluate personnel and contractor ability to perform covered tasks and to recognize and respond to abnormal operating conditions that may be encountered while performing these covered tasks. This is a performance-based qualification program. Pages: 267

RP 1162
Public Awareness Programs for Pipeline Operators

Provides guidance for pipeline operators to develop and manage public awareness programs tailored to meet the needs of the community. It is meant to raise the quality of public awareness programs and align baseline core safety messages across the oil and gas industry.

The scope of this recommended practice (RP) covers the development, implementation, evaluation, and documentation of public awareness programs associated with the normal operation of existing pipeline systems and facilities, including transmission pipelines, local distribution systems, and gathering lines.

Two important objectives of this RP are to provide a framework to help each pipeline operator create and manage a public awareness program as well as a process for periodic program evaluation to encourage each operator to enhance the program, at the operator’s discretion, as circumstances warrant. Communications related to new pipeline construction, offshore operations, and during emergencies are not covered by this RP nor is it intended to provide guidance to operators for communications about operator-specific performance measures that are addressed through other means of communication or regulatory reporting.

This RP provides the operator with the elements of a recommended baseline public awareness program and considerations to determine when and how to enhance the program to provide the appropriate level of public awareness
outreach. Enhancements may affect messages, delivery frequency and methods, geographic coverage areas, program evaluation, and other elements. Pages: 72

Product Number: D11622 | Price: $135.00

Std 1163
In-Line Inspection Systems Qualification
Covers the use of in-line inspection (ILI) systems for onshore and offshore gas and hazardous liquid pipelines. This includes, but is not limited to, tethered, self-propelled, or free flowing systems for detecting metal loss, cracks, mechanical damage, pipeline geometries, and pipeline location or mapping. The standard applies to both existing and developing technologies. This standard is an umbrella document that provides performance-based requirements for ILI systems, including procedures, personnel, equipment, and associated software. Nothing in this standard is intended to inhibit the use of inspection systems or engineering solutions that are not covered by the standard. This may be particularly applicable where there is innovative developing technology. Where an alternative is offered, the standard may be used, provided any and all variations from the standard are identified and documented. Pages: 90

2nd Edition | April 2013 | Reaffirmed: August 2018
Product Number: D11632 | Price: $142.00

Std 1163 *
In-Line Inspection Systems Qualification—Russian
Russian translation of Std 1163.

2nd Edition | April 2013 | Reaffirmed: August 2018
Product Number: D11632R | Price: $142.00

Std 1164
Pipeline SCADA Security
Provides guidance to the operators of oil and gas liquids pipeline systems for managing SCADA system integrity and security. The use of this document is not limited to pipelines regulated under Title 49 CFR 195.1, but should be viewed as a listing of best practices to be employed when reviewing and developing standards for a SCADA system. This document embodies API's Security Guidelines for the Petroleum Industry. This guideline is designed to provide operators with a description of industry practices in SCADA security, and to provide the framework needed to develop sound security practices within the operator's individual companies. It is important that operators understand system vulnerability and risks when reviewing the SCADA system for possible system improvements. The goal of an operator is to control the pipeline such that there are no adverse effects on employees, the environment, the public, or the customers as a result of actions by the operator, or by other parties. This document's main body provides a high-level view of holistic security practices. The annexes provide further details and technical guidance. Reviewing this document and following the guidance set forth in the annexes assists in creating inherently secure operations. Implementation of this standard to advance supervisory control and data acquisition (SCADA) cyber security is a continuous process. The overall process could take years to implement, depending on the complexity of the SCADA system. Additionally, the process would optimally be started as part of a SCADA upgrade project and use this standard to “design in” security as an element of the new system. Pages: 76

Product Number: D11642 | Price: $158.00

2nd Edition | June 2016 | Product Number: D116702 | Price: $136.00

2nd Edition | February 2015 | Product Number: D11682 | Price: $98.00

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RP 1169 - Pipeline Construction Inspection
Covers the basic requirements and their associated references needed to effectively and safely perform inspection activities during construction of new onshore pipelines. Use of this document will provide the basis for what construction inspectors need to know and where to find detailed information related to each facet of new pipeline construction inspection activities. The requirements are organized into the following major sections:

- inspector responsibilities,
- personnel and general pipeline safety,
- environmental and pollution control,
- general pipeline construction inspection.

Users of this document include those individuals either engaged in pipeline construction inspection or seeking to become certified inspectors. Pipeline owner/operators and pipeline inspection service companies may also use this document to aid and enhance their inspector training programs. Pages: 149

2nd Edition | March 2020 | Product Number: D11692 | Price: $186.00

RP 1170 - Design and Operation of Solution-Mined Salt Caverns Used for Natural Gas Storage
Provides functional recommendations for salt cavern facilities used for natural gas storage service and covers facility geomechanical assessments, cavern well design and drilling, and solution mining techniques and operations, including monitoring and maintenance practices. The recommended practice is based on the accumulated knowledge and experience of geologists, engineers, and other personnel in the petroleum and gas storage industries and promotes public safety by providing a comprehensive set of design guidelines. The recommended practice recognizes the nature of subsurface geological diversity and stresses the need for in-depth, site-specific geomechanical assessments with a goal of long-term facility integrity and safety.

This recommended practice includes the cavern well system (wellhead, wellbore, and cavern) from the emergency shut down valve down to the cavern and facilities having significant impact to safety and integrity of the cavern system. This recommended practice does not apply to caverns used for the storage of liquid or liquefied petroleum products, brine production, or waste disposal; nor to caverns that are mechanically mined, or depleted hydrocarbon or aquifer underground gas storage systems. Pages: 96


RP 1171 - Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs
Applies to natural gas storage in depleted oil and gas reservoirs and aquifer reservoirs, and focuses on storage well, reservoir, and fluid management for functional integrity in design, construction, operation, monitoring, maintenance, and documentation practices. Storage design, construction, operation, and maintenance include activities in risk management, site security, safety, emergency preparedness, and procedural documentation and training to embed human and organizational competence in the management of storage facilities. This recommended practice (RP) embodies historical knowledge and experience and emphasizes the need for case-by-case and site-specific conditional assessments.

This RP applies to both existing and newly constructed facilities. Applicable distinctions for aquifer facilities are identified, as necessary. “Replacement,” as used in this document, refers to the complete replacement of a facility unit, as, for example, when an existing well is abandoned and replaced with a new well. This document recommends that operators manage integrity through monitoring, maintenance, and remediation practices and apply specific integrity assessments on a case-by-case basis. The scope does not include pipelines, gas conditioning and liquid handling, compressors, and ancillary facilities associated with storage. Pages: 60

1st Edition | September 2015 | Product Number: D117101 | Price: $131.00

RP 1172 - Recommended Practice for Construction Parallel to Existing Underground Transmission Pipelines
Emphasis of these guidelines is on the interaction between existing transmission pipeline operators and those planning to construct in a parallel fashion. These activities may involve many different parties. Contractors working on behalf of the constructing party, including environmental and survey professionals, design engineers, construction contractors, and operators of excavation and earth moving equipment, should engage in work practices that are in conformance with these guidelines and apply vigilance in identifying unanticipated circumstances that may indicate a problem. This RP refers to all of these entities as the “constructing party.” These guidelines have been developed such that they can be incorporated into contract documents executed with contractors and subcontractors by whichever party is involved in or responsible for construction activities. Pages: 30

Product Number: D11721 | Price: $93.00

RP 1173 - Pipeline Safety Management Systems (ANSI/API RP 1173)
Establishes a pipeline safety management systems (PSMS) framework for organizations that operate hazardous liquids and gas pipelines jurisdictional to the U.S. Department of Transportation. Operators of other pipelines may find this document applicable useful in operating to their systems.

This recommended practice (RP) provides pipeline operators with safety management system requirements that when applied provide a framework to reveal and manage risk, promote a learning environment, and continuously improve pipeline safety and integrity. At the foundation of a PSMS is the operator’s existing pipeline safety system, including the operator’s pipeline safety processes and procedures. This RP provides a comprehensive framework and defines the elements needed to identify and address safety for a pipeline’s life cycle. These safety management system requirements identify what is to be done, and leaves the details associated with implementation and maintenance of the requirements to the individual pipeline operators. The document does not explicitly address personnel safety, environmental protection, and security, but the elements herein can be applied to those aspects of an operation. Pages: 42

1st Edition | July 2015 | Product Number: D117301 | Price: $93.00

RP 1174 - Recommended Practice for Onshore Hazardous Liquid Pipeline Emergency Preparedness and Response
Provides operators of onshore hazardous liquid pipelines a framework that promotes the continual improvement of emergency planning and response processes, including identification and mitigation of associated risks and implementation of changes from lessons learned. This recommended practice (RP) assists the operator in preparing for a safe, timely, and effective response to a pipeline emergency.

This RP applies to assets under the jurisdiction of the U.S. Department of Transportation (DOT), specifically U.S. Title 49 Code of Federal Regulations (CFR) Parts 194 and 195. Operators of non-DOT jurisdictional pipelines or tank assets may also make voluntary use of this document. Pages: 48

1st Edition | December 2015 | Product Number: D11741 | Price: $101.00
This recommended practice specifies the elements of a QMS to manage the construction process systematically from design verification, materials manufacturing, procurement, construction, inspection, and testing to initiation of operations. Pages: 68

1st Edition | November 2017 | Product Number: D110701 | Price: $128.00

Bull 1178

Integrity Data Management and Integration

Provides a compendium of methodologies and considerations for integrating the underlying data used to support integrity management. Any one approach may not be appropriate or applicable in all circumstances. The document reviews possible approaches for consideration by operators in the context of their specific circumstances.

The primary focus of this bulletin is the methodologies and processes used to spatially integrate and normalize the data to support the application of comparative techniques used in interpreting integrity data, with particular emphasis on in-line inspection (ILI) data. The bulletin begins with a discussion of general data quality processes, goals, and considerations such that data quality approaches can be considered in the context of the data integration processes.

An impediment to informed integrity decisions is the inability to efficiently review a broad spectrum of data in a format that has been normalized and spatially aligned. With the variations in organizational structures, integrity management programs, and technologies used across the pipeline sector, individual operators design data integration procedures that are customized to their organizational structure, processes, and pipeline systems.

 Properly managed and integrated data supports agile analytics to integrate new data as they become available and to recognize coincident events and patterns. The source of the data may be from within an organization or may be external to the company, as in the case of representative data based on industry experience or manufacturing processes. The intent is to empower operators to efficiently analyze and integrate threat- and integrity-related data to support their integrity management programs. Pages: 62

1st Edition | November 2017 | Product Number: D11781 | Price: $113.00

TR 1179

Hydrostatic Testing as an Integrity Management Tool

Provides guidelines related to hydrostatic testing as a tool for integrity management in gas and liquids pipelines. It specifically focuses on program design and key parameters for consideration in hydrostatic test programs, as well as potential detrimental effects of hydrostatic testing. Several case studies supplement the guidelines provided. Pages: 64

1st Edition | May 2019 | Product Number: D11791 | Price: $117.00

RP 1181

Pipeline Operational Status Determination

Provides guidance for operations, inspection, and maintenance activities based on the operational status of a pipeline. This establishes:

- four statuses: precommissioned, active/in-service, idled, and abandoned;
- operations, inspections, and maintenance recommendations for various pipeline operational statuses;
- pipeline status documentation requirements;
- recommendations regarding safe transition between pipeline statuses.

For the purposes of this document, the word “pipeline” refers to transmission and regulated gathering pipelines and pipeline systems, although the principles may be applied to nonregulated gathering and flow lines. Pages: 17

1st Edition | October 2019 | Product Number: D11811 | Price: $65.00
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RP 1182 ■ Construction, Operation, and Maintenance of Large Diameter Rural Gas Gathering Lines

Contains provisions relating to the design, construction, testing, corrosion control, operation, and maintenance of onshore gas gathering lines as defined in API 80. The requirements in the RP are applicable to pipeline > 12.75 in. outside diameter in Class 1 locations (3.1.4) or Class 2 locations (3.1.5) that are not regulated onshore gas gathering lines as defined in 49 CFR 192.8. Pages: 30
1st Edition | March 2020 | Product Number: D11821 | Price: $65.00

RP 1183 ■ Assessment and Management of Pipeline Dents

Applicable to any pipeline system used to transport hazardous liquid or natural gas. This RP includes detailed technical discussion on dent formation, strain, and fatigue, and failure modes and mechanisms. These details are provided to give pipeline operators the information and knowledge necessary to make informed integrity management decisions regarding the management of dents on their systems. This RP describes preventive and mitigative measures that pipeline operators can apply to manage dents after detection. The in-service response of dents to a range of loading conditions is discussed in detail. Pages: 138
1st Edition | November 2020 | Product Number: D11831 | Price: $186.00

RP 2611
Terminal Piping Inspection—Inspection of In-Service Terminal Piping Systems

Covers the inspection of typical terminal piping systems within terminal boundaries, which includes off-plot piping. Off-plot piping includes, but is not limited to piping between facilities, piping that comes from or goes to a refinery, or other type facility, or piping that may cross a road, ditch, or other property outside the confines of a terminal facility. Piping for transportation of finished fuel products, such as gasoline, diesel, lubricating oils, jet fuel, and aviation fuel, are covered by the scope of this document. Also covered are piping systems for nonfuel-type fluids. The piping for other terminal nonfuel-type fluids, such as aviation fuel, are covered by the scope of this document. Also covered are piping systems for nonfuel-type fluids. The piping for other terminal nonfuel-type fluids, such as gasoline, diesel, lubricating oils, jet fuel, and aviation fuel, are covered by the scope of this document. The document does not address piping in a refinery facility, sanitary waste piping, cast iron piping, and nonmetallic flow piping systems. Pages: 42

PIPELINE MAINTENANCE WELDING

Investigation and Prediction of Cooling Rates During Pipeline Maintenance Welding, and User’s Manual for Battelle’s Hot-Tap Thermal-Analysis Models

Investigated and improved the methods of predicting cooling rates during pipeline maintenance welding. The scope of this study included:

- a review of three previous research efforts to develop satisfactory methods for welding appurtenances to in-service pipelines;
- a survey of pipeline leak and rupture incidents associated with appurtenances;
- the enhancement of existing analytical models for predicting cooling rates and temperatures during welding on an in-service pipeline; and
- a validation of the thermal-analysis models that was achieved by performing welds on pipeline carrying three different liquid-petroleum products.

May 2002 | Product Number: | Version 4.2 | May 2002
Please order this document from PRCI: https://www.prci.org


Covers the gas and arc welding of butt, fillet, and socket welds in carbon and low-alloy steel piping used in the compression, pumping, and transmission of crude petroleum, petroleum products, fuel gases, carbon dioxide, nitrogen, and where applicable, covers welding on distribution systems. It applies to both new construction and in-service welding. The welding may be done by a shielded metal-arc welding, submerged arc welding, gas tungsten-arc welding, gas metal-arc welding, flux-cored arc welding, plasma arc welding, oxycetylene welding, or flash butt welding process or a combination of these processes using a manual, semiautomatic, mechanized, or automatic welding technique or a combination of these techniques. The welds may be produced by position or roll welding or by a combination of position and roll welding.

This standard also covers the procedures for radiographic, magnetic particle, liquid penetrant, and ultrasonic testing, as well as the acceptance standards to be applied to production welds tested to destruction or inspected by radiographic, magnetic particle, liquid penetrant, ultrasonic, and visual testing methods. It is intended that all work performed in accordance with this standard shall meet or exceed the requirements of this standard. Pages: 118
21st Edition | September 2013
Product Number: D110421 | Price: $373.00


Kazakh translation of Std 1104.
21st Edition | September 2013
Product Number: D110421K | Price: $373.00


Portuguese translation of Std 1104.
21st Edition | September 2013
Product Number: D110421P | Price: $373.00


Russian translation of Std 1104.
21st Edition | September 2013
Product Number: D110421R | Price: $373.00

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This publication is a new entry in this catalog. ◆ This publication is related to an API licensing, certification, or accreditation program.
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 diesel 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 appendices 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

2-Year Extension: January 2018
Product Number: A11123 | Price: $82.00

TANK TRUCK OPERATIONS

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 petroleum 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

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

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 appendices 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

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