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Free*

Spec Q1 ◆

Establishes the minimum quality management system requirements for organizations that manufacture products or provide manufacturing-related processes under a product specification for use in the petroleum and natural gas industry. This specification specifies requirements of a quality management system for an organization to demonstrate its ability to consistently provide reliable products and manufacturing-related processes that meet customer and legal requirements. This specification specifies minimum requirements of a quality management system for an organization to demonstrate its ability to consistently provide reliable products and manufacturing-related processes that meet customer and legal requirements. The quality management system requirements specified in this specification are in alignment with the clause requirements and format of document used for the provision of services and use of service-related product (API Q2). Pages: 47

9th Edition | June 2013 | Effective Date: June 1, 2014
Product Number: G0Q109 | Price: $131.00

Spec Q1 *
Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry—Chinese

Chinese translation of Spec Q1.
9th Edition | June 2013 | Product Number: G0Q109C | Price: $92.00

Spec Q1 *
Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry—Portuguese

Portuguese translation of Spec Q1.
9th Edition | June 2013 | Product Number: G0Q109P | Price: $131.00

Spec Q1 *
Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry—Spanish

Spanish translation of Q1.
9th Edition | June 2013 | Product Number: G0Q109SP | Price: $131.00

Spec Q2 ◆
Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries (includes Addendum 1 dated June 2016)

Defines the quality management system requirements for service supply organizations for the petroleum and natural gas industries. It is intended to apply to the provision of services during exploration, development, and production in the oil and gas industry. This includes activities involved in upstream oil and gas well construction, production, and abandonment. It is intended to apply when specified by the operator to the service provided. This document specifies requirements of a quality management system to demonstrate an organization's ability to consistently provide services that meet customer and applicable statutory and regulatory requirements, including processes for continual improvement of the system and the assurance of conformity to customer and applicable and regulatory requirements. Pages: 21

Product Number: G0Q201 | Price: $87.00

Spec Q2 *
Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries—Chinese

Chinese translation of Spec Q2.
1st Edition | December 2011 | Product Number: G0Q201C | Price: $61.00

Spec Q2 *
Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries—Portuguese

Portuguese translation of Spec Q2.
1st Edition | December 2011 | Product Number: G0Q201P | Price: $87.00

Spec Q2 *
Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries—Russian

Russian translation of Spec Q2.
1st Edition | December 2011 | Product Number: G0Q201R | Price: $70.00

*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.
natural gas industries that includes design verification analysis, design
Temperature Equipment Protocol for Verification and Validation of High-Pressure High-
petrochemical facility. The process described is intended to be applied at a
subsurface. Although intended for oil and gas industry, the process
Facilities Systems Completion Planning and Execution
RP 1FSC
Applies to a wide variety of projects within the oil and gas industry excluding subsurface. Although intended for oil and gas industry, the process described in this document can be applied to other industries as well. It is intended that the processes and practices established herein can be adapted and applied from a single piece of tagged equipment to a complex petrochemical facility. The process described is intended to be applied at a system level. The systems completion process is the sequential activities within a project that verify and prove the construction, installation, integration, testing, and preparation of systems have been completed as designed, and thus, the facility is ready for start-up and operations. The systems completion process is designed to help prepare and manage the transfer of care, custody, and control of facilities under construction through appropriate certification and documentation, such that the details of progress are evident. Pages: 11
1st Edition | July 2013 | Reaffirmed: December 2019
Product Number: G1FSC01 | Price: $66.00
TR 1PER15K-1
Protocol for Verification and Validation of High-Pressure High-Temperature Equipment
Focuses on an evaluation process for HPHT equipment in the petroleum and natural gas industries that includes design verification analysis, design validation, material selection considerations, and manufacturing process controls necessary to ensure the equipment is fit-for-service in the applicable HPHT environment where HPHT environments are intended to mean one or more of the following well conditions exist:
- the completion of the well requires completion equipment or well control equipment assigned a pressure rating greater than 15,000 psig or a temperature rating greater than 350 °F;
- the maximum anticipated surface pressure or shut-in tubing pressure is greater than 15,000 psig on the seafloor for a well with a subsea wellhead or at the surface for a well with a surface wellhead; or
- the flowing temperature is greater than 350 °F on the seafloor for a well with a subsea wellhead or on the surface for a well with a surface wellhead.
The design verification and validation protocols in this report should be used as a guide by the various API standards committees to develop future documents on equipment specifications for HPHT service. This report is not intended to replace existing API equipment specifications, but to supplement them by illustrating accepted practices and principles that may be considered in order to maintain the safety and integrity of the equipment. This report is intended to apply to the following equipment: wellheads, tubing heads, tubulars, packers, connections, seals, seal assemblies, production trees, chokes, and well control equipment. It may be used for other equipment in HPHT service. Pages: 90
1st Edition | March 2013 | Product Number: G1PER15K11 | Price: $159.00
TR 18TR1
Guidance on Changes to API Q1, Ninth Edition
Written for experienced quality professionals seeking to implement the new requirements of API Q1, 9th Edition and to gain a deeper understanding of the requirements with an overall view to improving their quality management system (QMS) and conformance to API Q1, 9th Edition. While API Q1, 9th Edition was created independently of ISO 9001:2008, the specification continues to satisfy those requirements and the supplemental requirements in API Q1, 8th Edition. The formatting of API Q1, 9th Edition was revised to align with API Q2, 1st Edition and to follow a chronological order in the production and delivery of the product. Pages: 22
1st Edition | June 2015 | Product Number: G18TR101 | Price: $71.00
TR 18TR2
Guidance to API Specification Q2
Provides guidance on the intent and use of API Q2. This document is not intended to provide training on the development and implementation of a quality management system.
This document will not provide guidance to each section of the API Q2. Pages: 13
1st Edition | December 2017 | Product Number: G18TR201 | Price: $66.00
TR 18TR4
Evaluation of Welding Requirements as Applicable to API Product Specifications
A result of an evaluation of the consistency of welding requirements between API Product Specifications that are primarily used in exploration and production. The intent of the evaluation was to identify a means to standardize welding requirements across API Product Specifications. Pages: 117
1st Edition | December 2017 | Product Number: G18TR401 | Price: $131.00
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OFFSHORE STRUCTURES

RP 2A-LRFD  ■
Planning, Designing, and Constructing Fixed Offshore Platforms—Load and Resistance Factor Design

Specifies requirements and provides recommendations applicable to the following types of fixed steel offshore structures for the petroleum and natural gas industries: free-standing and braced caissons, jackets, monotowers, and towers. In addition, it is applicable to compliant bottom-founded structures, steel gravity structures, jack-ups, other bottom-founded structures, and other structures related to offshore structures (such as underwater oil storage tanks, bridges, and connecting structures), to the extent to which its requirements are relevant. This document contains requirements for planning and engineering of the following tasks: design, fabrication, transportation, and installation of new structures, as well as their future removal; in-service inspection and integrity management of both new and existing structures; assessment of existing structures; and evaluation of structures for reuse at different locations. Pages: 518

2nd Edition | August 2019 | Product Number: G2ALRFD2 | Price: $387.00

RP 2A-WSD
Planning, Designing, and Constructing Fixed Offshore Platforms—Working Stress Design

Contains requirements for the design and construction of new fixed offshore platforms and for the relocation of existing platforms used for drilling, development, and storage of hydrocarbons in offshore areas. In addition, this document should be used in conjunction with RP 2SM for the assessment of existing platforms in the event that it becomes necessary to make a determination of the fitness-for-purpose of the structure. Pages: 310

22nd Edition | November 2014 | Product Number: G2AWSD22 | Price: $428.00

Spec 2B ◆
Specification for the Fabrication of Structural Steel Pipe

Covers the fabrication of structural steel pipe formed from plate steel with longitudinal and circumferential butt-welded seams. Pipe is typically in sizes of 14 in. outside diameter and greater, with a wall thickness 3/8 in. and greater (up to a nominal 40 ft in length), and is suitable for use in construction of welded offshore structures. The use of the ERW process or spiral welded pipe is not included in this specification. Pipe fabricated under this specification is intended to be used primarily in piling and main structural members, including tubular truss connections, where internal stiffeners are not usually required. Pages: 8

6th Edition | July 2001 | Reaffirmed: January 2012 | Product Number: G02B06 | Price: $90.00

Spec 2B ◆
Specification for the Fabrication of Structural Steel Pipe—Chinese

Chinese translation of Spec 2B.


Spec 2C ◆
Offshore Pedestal-Mounted Cranes (includes Errata 1 dated March 2013)

Provides requirements for design, construction, and testing of offshore pedestal mounted cranes. Offshore cranes are defined in this specification as pedestal mounted elevating and rotating lift devices for transfer of materials or personnel to or from marine vessels and structures. Offshore cranes are typically mounted on a fixed (bottom supported) or floating platform structure used in drilling and production operations. Spec 2C is not intended to be used for the design, fabrication, and testing of davits and/or emergency escape devices. Spec 2C is also not intended to be used for shipboard cranes or heavy lift cranes. Pages: 124

7th Edition | March 2012 | Effective Date: October 1, 2012 | Product Number: G02C07 | Price: $155.00

Spec 2C ◆
Offshore Pedestal-Mounted Cranes—Chinese

Chinese translation of Spec 2C.

7th Edition | March 2012 | Product Number: G02C07C | Price: $110.00

RP 2D
Operation and Maintenance of Offshore Cranes (includes Errata 1 dated August 2015)

Intended to serve as a guide to crane owners and operators in developing operating and maintenance practices and procedures for use in the safe operation of pedestal-mounted revolving cranes on fixed or floating offshore platforms, jackup drilling rigs, semi-submersible drilling rigs and other types of mobile offshore drilling units (MODUs). Guidelines are also given for the pre-use inspection and testing of temporary cranes (also called self-erecting, leaping or bootstrap cranes) that are erected offshore.

Equipment (e.g. davits, launch frames) used only for launching life-saving appliances (life boats or life rafts) are not included in the scope of this document. Pages: 120

7th Edition | December 2014 | Product Number: G02D07 | Price: $157.00

RP 2EQ/ISO 19901-2:2004
Seismic Design Procedures and Criteria for Offshore Structures (includes Addendum 1 dated January 2019)

Contains requirements for defining the seismic design procedures and criteria for offshore structures and is a modified adoption of ISO 19901-2. The intent of the modification is to map the requirements of ISO 19901-2 to the United States’ offshore continental shelf (U.S. OCS). The requirements are applicable to fixed steel structures and fixed concrete structures. The effects of seismic events on floating structures and partially buoyant structures are also briefly discussed. The site-specific assessment of jack-ups in elevated condition is only covered to the extent that the requirements are applicable. This document defines the seismic requirements for new construction of structures in accordance with RP 2A-WSD, 22nd Edition and later. Earlier editions of RP 2A-WSD are not applicable. Only earthquake-induced ground motions are addressed in detail. Other geologically induced hazards such as liquefaction, slope instability, faults, tsunamis, mud volcanoes, and shock waves are mentioned and briefly discussed. The requirements are intended to reduce risks to persons, the environment, and assets to the lowest levels that are reasonably practicable.

This edition of RP 2EQ is the modified national adoption of ISO 19901-2:2004. Pages: 54

1st Edition | November 2014 | Product Number: GG2EQ01 | Price: $136.00

Spec 2F ◆
Specification for Mooring Chain

Covers flash-welded chain and forged center connecting links used for mooring of offshore floating vessels such as drilling vessels, pipe lay barges, derrick barges, and storage tankers. Pages: 16


Spec 2F ◆
Specification for Mooring Chain—Chinese

Chinese translation of Spec 2F.

6th Edition | June 1997 | Product Number: G02F06C | Price: $69.00

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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.
RP 2FB
Recommended Practice for Design of Offshore Facilities Against Fire and Blast Loading

Provides an assessment process for the consideration of fire and blast in the design of offshore structures and includes guidance and examples for setting performance criteria. This document complements the contents of the Section 18 of RP 2A-WSD, 21st Edition with more comprehensive guidance in design of both fixed and floating offshore structures against fire and blast loading. Guidance on the implementation of safety and environmental management practices and hazard identification, event definition and risk assessment can be found in RP 75 and the RP 14 series. The interface with these documents is identified and emphasized throughout, as structural engineers need to work closely with facilities engineers experienced in performing hazard analysis as described in RP 14J, and with the operator's safety management system as described in RP 75. Pages: 63

1st Edition | April 2006 | Reaffirmed: January 2012
Product Number: G2FB01 | Price: $171.00

RP 2FPS
Planning, Designing, and Constructing Floating Production Systems

Provides guidelines for design, fabrication, installation, inspection, and operation of floating production systems (FPSs). A FPS may be designed with the capability of one or more stages of hydrocarbon processing, as well as drilling, well workover, product storage, and export. This document addresses only floating systems where a buoyant hull of some form supports the deck, production, and other systems. Bottom-fixed components, such as self-supporting risers, and stationkeeping systems, such as tension leg platforms and catenary anchor leg mooring (CALM), single anchor leg mooring (SALM), etc., are considered as ancillary components and are addressed in more detail in other API recommended practices. Pages: 191

2nd Edition | October 2011 | Product Number: G2FPS02 | Price: $202.00

RP 2FSIM
Floating Systems Integrity Management

Provides guidance for floating system integrity management (FSIM) of floating production systems (FPSs), which include tension leg platforms (TLPs), used by the petroleum and natural gas industries to support drilling, production, storage, and/or offshore operations. FPSs described in this recommended practice are governed by local regulatory requirements and recognized classification society (RCS) rules (if classified). No specific regulatory compliance or RCS requirements are restated in this RP. The requirements of this RP do not apply to mobile offshore drilling units (MODUs) or to mobile offshore units (MOUs) used in support of construction operations. For integrity management (IM) considerations, these units are typically governed by RCS rules. Pages: 101

1st Edition | September 2019
Product Number: G2FSIM01 | Price: $175.00

RP 2GEO/ISO 19901-4:2003
Geotechnical and Foundation Design Considerations (includes Addendum 1 dated October 2014)

Contains requirements and recommendations for those aspects of geoscience and foundation engineering that are applicable to a broad range of offshore structures, rather than to a particular structure type. Such aspects are site characterization, soil and rock characterization, design and installation of foundations supported by the seabed (shallow foundations), identification of hazards, and design of pile foundations.

Aspects of soil mechanics and foundation engineering that apply equally to offshore and onshore structures are not addressed. The user of this document is expected to be familiar with such aspects.

This edition of RP 2GEO is the modified national adoption of ISO 19901-4:2003. Pages: 103

1st Edition | April 2011 | Product Number: G2GEO001 | Price: $167.00
The environmental conditions and metocean parameters discussed are:

- extreme and abnormal values of metocean parameters that recur with given return periods that are considerably longer than the design service life of the structure;
- long-term distributions of metocean parameters, in the form of cumulative, conditional, marginal or joint statistics of metocean parameters; and normal environmental conditions that are expected to occur frequently during the design service life of the structure.

Metocean parameters are applicable to:

- the determination of actions for the design of new structures;
- the determination of actions for the assessment of existing structures;
- the site-specific assessment of mobile offshore units;
- the determination of limiting environmental conditions, weather windows, actions and action effects for pre-service and post-service situations (i.e. fabrication, transportation and installation or decommissioning and removal of a structure); and facility operations, where appropriate. Pages: 280

2nd Edition | November 2019
Product Number: G2MIM02 | Price: $227.00

RP 2MIM • Mooring Integrity Management

Provides guidance for the integrity management (IM) of mooring systems connected to a permanent floating production system (FPS) used for the drilling, development, production, and/or storage of hydrocarbons in offshore areas. The scope of this recommended practice (RP) extends from the anchor to the connection to the floating unit (e.g. chain stopper) and includes components critical to the mooring system (e.g. turret bearings, fairleads, chain stoppers, anchors, suction piles).

Specific guidance is provided for the inspection, monitoring, evaluation of damage, fitness-for-service assessment, risk reduction, mitigation planning, and the process of decommissioning. This RP incorporates and expands on the IM recommendations found in API 2I and API 2SK. In the event of any discrepancy between API 2MIM and API 2I/API 2SK, API 2I/API 2SK will govern. Pages: 83

1st Edition | September 2019
Product Number: G2MIM01 | Price: $137.00

RP 2MOP/ISO 19901-6:2009 • Marine Operations (includes Eratta 1 dated April 2015)

Provides requirements and guidance for the planning and engineering of marine operations, encompassing the design and analysis of the components, systems, equipment, and procedures required to perform marine operations, as well as the methods or procedures developed to carry them out safely. This document is also applicable to modifications of existing structures, e.g. installation of additional topsides modules.

This edition of RP 2MOP is the identical national adoption of ISO 19901-6:2009. Pages: 168

1st Edition | July 2010 | Reaffirmed: April 2015
Product Number: G2MOP01 | Price: $263.00

Spec 2MT2 • Rolled Shapes with Improved Notch Toughness (includes Addendum 1 dated December 2019)

Covers rolled shapes (wide flange shapes, angles, etc.), having a specified minimum yield strength of 50 ksi (345 Mpa), intended for use in offshore structures. Commonly available Class A, Class B, and Class C beams refer to degrees of fracture criticality as described in RP 2A-WSD, with Class C being for the least critical applications. For special critical applications, Class AAZ shapes may be specified, by agreement, using Supplement S101. Pages: 8

1st Edition | June 2002 | Effective Date: December 1, 2002
Reaffirmed: June 2015 | Product Number: G2MT2 | Price: $86.00

RP 2N/ISO 19906:2010 • Planning, Designing, and Constructing Structures and Pipelines for Arctic Conditions

Specifies requirements and provides recommendations and guidance for the design, construction, transportation, installation, and removal of offshore structures, related to the activities of the petroleum and natural gas industries in arctic and cold regions. Reference to arctic and cold regions includes both the Arctic and other cold regions that are subject to similar sea ice, iceberg, and icing conditions. The objective of this standard is to ensure that offshore structures in arctic and cold regions provide an appropriate level of reliability with respect to personnel safety, environmental protection, and asset value to the owner, to the industry, and to society in general.

This standard does not contain requirements for the operation, maintenance, service-life inspection, or repair of arctic and cold region offshore structures, except where the design strategy imposes specific requirements. While this standard does not apply specifically to mobile offshore drilling units, the procedures relating to ice actions and ice management contained herein are applicable to the assessment of such units. This standard does not apply to mechanical, process, and electrical equipment or any specialized process equipment associated with arctic and cold region offshore operations except in so far as it is necessary for the structure to sustain safely the actions imposed by the installation, housing, and operation of such equipment.

This edition of RP 2N is the modified national adoption of ISO 19906:2010. Pages: 458

3rd Edition | April 2015 | Product Number: G02N03 | Price: $216.00

Std 2RD • Dynamic Risers for Floating Production Systems

Addresses structural analysis procedures, design guidelines, component selection criteria, and typical designs for all new riser systems used on FPSs. Guidance is also given for developing load information for the equipment attached to the ends of the risers. The recommended practice for structural design of risers, as reflected in this document, is generally based on the principles of limiting stresses in the risers and related components under normal, extreme, and accidental conditions. This document assumes that the risers will be made of steel or titanium pipe or unbonded flexible pipe. However, other materials, such as aluminum, are not excluded if risers built using these materials can be shown to be fit for purpose. Design considerations for unbonded flexible pipe are included primarily by reference to RP 17B and Spec 17J. Pages: 81

2nd Edition | September 2013 | Product Number: G2RD02 | Price: $265.00

RP 2RIM • Integrity Management of Risers from Floating Production Facilities

Provides guidance for the integrity management (IM) of risers connected to a permanent floating production system (FPS) used for the drilling, development, production, and storage of hydrocarbons in offshore areas.

For the purposes of this recommended practice, a riser has a top boundary that is somewhere at or above the point where it transfers load to the platform structure, and it has a lower boundary where it transfers load into a foundation, which could be a wellhead, pipeline, or subsea structure. Pages: 72

1st Edition | September 2019
Product Number: G2RIM01 | Price: $137.00
Bull 2S
Design of Windlass Wildcats for Floating Offshore Structures
Covers the design of windlass wildcats to ensure proper fit and function between windlass and mooring chain. Wildcats are of the five-wheel type for use with studlink anchor chain conforming to the classification society Grades 1, 2, and 3. ORQ and Grade 4 chain. Wildcat dimensions are provided for chains in integral 1/8 in. (3 mm) steps, ranging in size from 2 in. to 4 in. (51 mm to 102 mm). Wildcat dimensions for chain in intermediate 1/16 in. (1.5 mm) steps are not provided, but wildcats in these sizes are permitted within the scope of this publication. Pages: 7

Spec 2SC
Manufacture of Structural Steel Castings for Primary Offshore Applications
Castings manufactured to this specification are intended for use in the fabrication of offshore structures, manufacture of critical marine or mechanical or other system components intended for application on permanent offshore structures, or for components used in the construction of offshore tendons, risers and pipelines. This specification is based on the experience acquired during the design, construction, operation, and maintenance of offshore processing units and permanent facilities, as supplemented with the experience of operating companies with topside, fixed platforms, floating structures (e.g. TLPs and spars), and their tendons and risers. Castings in these applications tend to be limited production components, with relatively few replications, and receive more intense scrutiny than routine mass production runs. Pages: 29

Spec 2SF
Manufacture of Structural Steel Forgings for Primary Offshore Applications
Forgings manufactured to this specification are intended for use in the fabrication of offshore structures, marine risers, TLP tendons and pipelines, or other system components intended for application on permanent offshore structures. This specification defines the minimum requirements for manufacture, testing, and inspection of carbon and low-alloy steel forgings, including extrusions and heavy-wall seamless tubular product, grades 345 N/mm² to 586 N/mm² (50 ksi to 85 ksi) for use in primary steel applications. Service categories A, B, and C (SCA, SCB, and SCC) reflect forging geometry and method of incorporation into the overall system, rather than levels of criticality. They may also be designated by the user (purchaser) to reflect moderately different but standardized levels of performance. Pages: 26

RP 2SK
Design and Analysis of Stationkeeping Systems for Floating Structures (includes Addendum 1 dated May 2008)
Provides a rational method for analyzing, designing, or evaluating mooring systems used with floating units. This method provides a uniform analysis tool that, when combined with an understanding of the environment at a particular location, the characteristics of the unit being moored, and other factors, can be used to determine the adequacy and safety of the mooring system. Some design guidelines for dynamic positioning systems are also included. Appendix K of 2SK replaces RP 95F. Pages: 181

RP 2SM
Design, Manufacture, Installation, and Maintenance of Synthetic Fiber Ropes for Offshore Mooring
Covers the design, manufacture, and installation of synthetic fiber ropes to include the design and analysis considerations of mooring systems, design criteria for mooring components, rope design and testing, quality assurance, and in-service maintenance and inspection. This document applies to synthetic fiber ropes used in the form of taut leg or catenary moorings for both permanent and temporary offshore installations such as:
- monohull-based floating production, storage, and offloading units (FPSOs);
- monohull-based floating storage units (FSOs, FSUs);
- monohull or semi-submersible based floating production units (FPUs, FPSs);
- mobile offshore drilling units (MODUs);
- spar platforms;
- catenary anchor leg mooring (CALM) buoys;
- mobile offshore units. Pages: 108

RP 2T
Planning, Designing and Constructing Tension Leg Platforms
Addresses the need to evaluate the tie-downs in use on offshore production facilities for drilling rigs, permanent equipment, and facilities such as quarters, helidecks, etc. The information contained in this document is presented as recommendations to improve tie-down performance during hurricanes. Bull 2TD also addresses situations where failure of a drilling or workover rig would result in significant damage to the platform or adjacent infrastructure. Pages: 3

Bull 2TD
Guidelines for Tie-Downs on Offshore Production Facilities for Hurricane Season
Addresses the need to evaluate the tie-downs in use on offshore production facilities for drilling rigs, permanent equipment, and facilities such as quarters, helidecks, etc. The information contained in this document is presented as recommendations to improve tie-down performance during hurricanes. Bull 2TD also addresses situations where failure of a drilling or workover rig would result in significant damage to the platform or adjacent infrastructure. Pages: 3
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RP 2TOP ■
Topside Structure
Provides requirements for the design, fabrication, transportation, installation, modification, and structural integrity management for the topsides structure for an oil and gas platform. It complements API 2A-WSD, API 2A-LRFD, ISO 19903, API 2FPS, API 2T, ISO 19905 1, and API 2N, which give requirements for various forms of substructures. It is based on ISO 19901-3:2010 (Corrected version, 15-Dec-2011) and is consistent with ISO 19901-3:2014. In fact, ISO 19901-3 was followed to the fullest extent possible and modified only where needed to conform to standards and practices of API.

Requirements in API 2TOP concerning modifications and maintenance relate only to those aspects that are of direct relevance to the structural integrity of the topsides structure. Pages: 136

1st Edition | August 2019 | Product Number: G2TOP1 | Price: $156.00

RP 2Z
Recommendation Practice for Preproduction Qualification for Steel Plates for Offshore Structures
Covers requirements for preproduction qualification, by special welding and mechanical testing, of specific steelmaking and processing procedures for the manufacture of steel of a specified chemical composition range by a specific steel producer. This is a recommended practice for material selection and qualification, but not for the performance of production weld joints. This recommended practice was developed in conjunction with, and is intended primarily for use with, Specs 2W and 2Y. However, it may be used as a supplement to other material specifications (e.g., Spec 2H) if so desired. Pages: 19

4th Edition | September 2005 | Product Number: G02Z04R | Price: $103.00

Particulars

Spec 2Y ●
Specification for Steel Plates, Quenched-and-Tempered, for Offshore Structures
Covers two grades of high strength steel plate for use in welded construction of offshore structures, in selected critical portions that must resist impact, plastic fatigue loading, and lamellar tearing. Grade 50 is covered in thicknesses up to 6 in. (150 mm) inclusive, and Grade 60 is covered in thicknesses up to 4 in. (100 mm) inclusive. Pages: 13

5th Edition | December 2006 | Effective Date: June 1, 2007
Reaffirmed: January 2012 | Product Number: G02Y05 | Price: $102.00

RP 2Z
Recommendation Practice for Preproduction Qualification for Steel Plates for Offshore Structures—Russian
Covered requirements for preproduction qualification, by special welding and mechanical testing, of specific steelmaking and processing procedures for the manufacture of steel of a specified chemical composition range by a specific steel producer. This is a recommended practice for material selection and qualification, but not for the performance of production weld joints. This recommended practice was developed in conjunction with, and is intended primarily for use with, Specs 2W and 2Y. However, it may be used as a supplement to other material specifications (e.g., Spec 2H) if so desired. Pages: 19

4th Edition | September 2005 | Effective Date: June 1, 2007
Product Number: G02Z04R | Price: $103.00

5th Edition | December 2006 | Effective Date: June 1, 2007
Reaffirmed: January 2012 | Product Number: G02Z06R | Price: $105.00

RP 2X
Recommended Practice for Ultrasonic and Magnetic Examination of Offshore Structural Fabrication and Guidelines for Qualification of Technicians
Contains guidance on commonly used NDE methods such as visual (VT), penetrant (PT), magnetic particle (MT), radiography (RT), and ultrasonic (UT) examinations, which are routinely used in offshore structural fabrication. This recommended practice primarily addresses the MT and UT methods. Guidance on VT, PT, and RT is incorporated by reference to AWS D1.1. Further recommendations are offered for determining the qualifications of personnel using MT and UT techniques. Recommendations are also offered for the integration of these techniques into a general quality control program. The interrelationship between joint design, the significance of defects in welds, and the ability of NDE personnel to detect critical-size defects is also discussed. Pages: 77

Product Number: G02X04 | Price: $159.00

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◆ This publication is related to an API licensing, certification, or accreditation program.
RP 5A5/ISO 15463:2003
Field Inspection of New Casing, Tubing, and Plain-End Drill Pipe—
(includes Errata 1 dated December 2009)
Specifies requirements and gives recommendations for field inspection and
testing of oil country tubular goods (OCTG). This International Standard
covers the practices and technology commonly used in field inspection;
hence, certain practices may also be suitable for mill inspections. Covers
the qualification of inspection personnel, a description of inspection
methods and apparatus calibration and standardization procedures for
various inspection methods. The evaluation of imperfections and marking of
inspected OCTG are included. Applicable to field inspection of OCTG and is
not applicable for use as a basis for acceptance or rejection.

This edition of RP 5A5 is the identical national adoption of
ISO 15463:2003. Pages: 118

Product Number: GX5A070 | Price: $171.00

RP 5A5/ISO 15463:2003 *
Field Inspection of New Casing, Tubing, and Plain-End Drill Pipe—
Chinese
Chinese translation of RP 5A5.
7th Edition | June 2005 | Product Number: GX5A070C | Price: $119.00

Spec 5B *
Threading, Gauging, and Inspection of Casing, Tubing, and Line Pipe
Threads—Russian
Russian translation of Spec 5B.
16th Edition | December 2017 | Product Number: G5B016R | Price: $126.00

RP 5B1
Gauging and Inspection of Casing, Tubing and Line Pipe Threads
(includes Addendum 1 dated September 2004)
Covers threading, gauging, gauging practice, and inspection of threads for
casing, tubing, and line pipe made under Specs 5CT, 5DP, and 5L. Also
covers gauge specifications and certification for casing, tubing, and line pipe
gauges. Pages: 48

Product Number: G05B105 | Price: $154.00

RP 5B1 *
Gauging and Inspection of Casing, Tubing and Line Pipe Threads—
Kazakh
Kazakh translation of RP 5B1.
5th Edition | August 1999 | Product Number: G05B15K | Price: $123.00

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include any addenda or errata to the document. Please check the English-language versions for any updates to the documents.
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RP 5B1 *
Gauging and Inspection of Casing, Tubing and Pipe Line Threads—Russian
Russian translation of RP 5B1.
5th Edition | October 1999 | Product Number: G05B15R | Price: $123.00

RP 5C1
Recommended Practice for Care and Use of Casing and Tubing
Covers use, transportation, storage, handling, and reconditioning of casing and tubing. Pages: 31
Product Number: G05C18 | Price: $124.00

RP 5C1 *
Recommended Practice for Care and Use of Casing and Tubing—Chinese
Chinese translation of RP 5C1.
18th Edition | May 1999 | Product Number: G05C18C | Price: $88.00

TR 5C3
Calculating Performance Properties of Pipe Used as Casing or Tubing
Illustrates the equations and templates necessary to calculate the various pipe properties, including:
• pipe performance properties, such as axial strength, internal pressure resistance, and collapse resistance;
• minimum physical properties;
• product assembly force (torque);
• product test pressures;
• critical product dimensions related to testing criteria;
• critical dimensions of testing equipment; and
• critical dimensions of test samples.
For equations related to performance properties, extensive background information is also provided regarding their development and use. Pages: 400
7th Edition | June 2018 | Product Number: GSC307 | Price: $246.00

RP 5C5
Procedures for Testing Casing and Tubing Connections
Defines tests to perform to determine the galling tendency, sealing performance, and structural integrity of threaded casing and tubing connections. The words “casing” and “tubing” apply to the service application and not to the diameter of the pipe. This recommended practice addresses the primary loads to which casing and tubing strings are subjected: fluid pressure (internal and/or external), axial force (tension and/or compression), bending (buckling and/or weldface deviation), and temperature variations. Pages: 197

RP 5C5 *
Procedures for Testing Casing and Tubing Connections—Russian
Russian translation of RP 5C5.

RP 5C6
Pipe with Welded Connectors
Provides a practice for facility or field welding of connectors to pipe. The technical content contains guidance and requirements for welding procedure qualification, welder performance qualification, materials, testing, production welding, and inspection. Additionally, this standard covers the weld fabrication of connectors and handling attachments such as lift eyes and landing pads to pipe. This standard also includes practices used within industry and is intended to be analogous to API 6A PSL 1, with additional requirements specific to the equipment fabrication. Pages: 28
3rd Edition | May 2018 | Product Number: G05C62 | Price: $103.00

RP 5C8
Care, Maintenance, and Inspection of Coiled Tubing
Covers the care, maintenance, and inspection of used low alloy carbon steel coiled tubing. Commonly manufactured coiled tubing outside diameters range from 25.4 mm (1.000 in.) to 88.9 mm (3.5 in.). Pages: 122
1st Edition | January 2017 | Product Number: G05C801 | Price: $131.00

Spec 5CRA/ISO 13680:2008 *
Specification for Corrosion Resistant Alloy Seamless Tubes for Use as Casing, Tubing and Coupling Stock—Russian
Russian translation of Spec 5CRA.
1st Edition | February 2010 | Effective Date: August 1, 2010
Reaffirmed: April 2015 | Product Number: GG5CRA01 | Price: $168.00

Spec 5CRA/ISO 13680:2008 *
Specification for Corrosion Resistant Alloy Seamless Tubes for Use as Casing, Tubing and Coupling Stock
This edition of Spec 5CRA is the identical national adoption of ISO 13680:2010. Pages: 87
1st Edition | February 2010 | Effective Date: August 1, 2010
Reaffirmed: April 2015 | Product Number: GG5CRA01R | Price: $134.00

Spec 5CT *
Casing and Tubing
(includes Errata 1 dated December 2018 and Errata 2 dated May 2019)
Specifies the technical delivery conditions for steel pipes (casing, tubing, and pup joints), coupling stock, coupling material, and accessory material, and establishes requirements for three product specification levels (PSL-1, PSL-2, PSL-3). The requirements for PSL-1 are the basis of this standard. The requirements that define different levels of standard technical requirements for PSL-2 and PSL-3, for all grades except H-40, L-80 9Cr, and C110, are provided.
For pipes covered by this standard, the sizes, masses, and wall thicknesses, as well as grades and applicable end-finishes, are provided. API 5L pipe may be ordered as casing in accordance with API 5C6. Pages: 307
10th Edition | June 2018 | Effective Date: July 1, 2019
Product Number: G5CT010 | Price: $282.00

Spec 5CT *
Casing and Tubing—Chinese
Chinese translation of Spec 5CT.
10th Edition | June 2018 | Product Number: G5CT010C | Price: $197.00

Spec 5CT *
Casing and Tubing—Russian
Russian translation of Spec 5CT.
10th Edition | June 2018 | Product Number: G5CT010R | Price: $225.00

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This International Standard can also be used for drill-pipe with tool joints not specified by ISO or API standards. This International Standard covers the following grades of drill-pipe:

- grade E drill-pipe;
- high-strength grades of drill-pipe, grades X, G, and S.

This International Standard can also be used for drill-pipe with tool joints not specified by ISO or API standards. This International Standard is based on Spec 5D and Spec 7.

This edition of Spec 5DP is the identical national adoption of ISO 11961:2008. Pages: 112

1st Edition | August 2009 | Effective Date: August 1, 2010
Reaffirmed: April 2015 | Product Number: GX5DP01 | Price: $196.00

RP 5L3
Drop-Weight Tear Tests on Line Pipe
Describes procedures for the recommended method for conducting drop-weight tear tests to measure the fracture appearance or fracture ductility of line pipe as referenced in Spec 5L. Pages: 11

RP 5L8
Recommended Practice for Field Inspection of New Line Pipe
Covers the qualification of inspection personnel, a description of inspection methods, and apparatus calibration and standardization procedures for various inspection methods. The evaluation of imperfections and marking of inspected new line pipe are included. Also included are recommended procedures for field inspection and testing of new plain-end line pipe. This document was prepared specifically to address the practices and technology used in field inspection of line pipe, and certain parts are not suitable or appropriate for mill inspections. Pages: 39
Product Number: G05L82 | Price: $136.00

RP 5L8 *
Recommended Practice for Field Inspection of New Line Pipe—Russian
Russian translation of RP 5L8.

Spec 5L
Line Pipe
(includes Errata 1 dated May 2018)
Specifies requirements for the manufacture of two product specification levels (PSL 1 and PSL 2) of seamless and welded steel pipes for use in pipeline transportation systems in the petroleum and natural gas industries. This specification is not applicable to cast pipe. Pages: 210
46th Edition | April 2018 | Effective Date: November 1, 2018
Product Number: G05L46 | Price: $298.00

Spec 5L *
Line Pipe—Chinese
Chinese translation of Spec 5L.
46th Edition | April 2018 | Product Number: G05L46C | Price: $209.00

Spec 5L *
Line Pipe—Russian
Russian translation of Spec 5L.
46th Edition | April 2018 | Product Number: G05L46R | Price: $238.00

RP 5L1
Recommended Practice for Railroad Transportation of Line Pipe
Applies to the transportation on railcars of Spec 5L steel line pipe in sizes 23/8 and larger in lengths longer than single random. These recommendations cover coated or uncoated pipe, but they do not encompass loading practices designed to protect pipe coating from damage. Pages: 5
Product Number: G5L107 | Price: $65.00

RP 5L1 *
Recommended Practice for Railroad Transportation of Line Pipe—Russian
Russian translation of RP 5L1.
7th Edition | September 2009 | Product Number: G5L107R | Price: $50.00

RP 5EX
Design, Verification, and Application of Solid Expandable Systems
Establishes guidance for design, system verification, and application guidelines of solid expandable systems for the oil and gas industries. This document is not to be used as a specification for purchasing equipment; it is intended for consideration by users for well applications and design of solid expandable systems.
Expandable systems will include drilling liners, hangers, connections, receivers, and launchers for downhole use as defined herein. Only permanently installed equipment/components are covered by this recommended practice. Slotted liners and tools used for the expansion of the tubular goods (such as, but not limited to, implementation tools, pumps, jacks, and expansion tools) are not addressed by this recommended practice. Pages: 54
1st Edition | May 2018 | Product Number: G5EX01 | Price: $114.00

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<th>Product Number</th>
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<td><strong>Spec 5LC</strong></td>
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<td>G5LC04</td>
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<td>(includes Errata 1 dated October 2015)</td>
<td>March 2015</td>
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<td></td>
<td>Covers seamless, centrifugal cast, and welded corrosion resistant alloy line pipe as well as austenitic stainless, martensitic stainless, duplex stainless, and Ni-base alloys. Also includes standard weight, regular weight, special, extra strong, and double extra strong plain end line pipe as well as processes of manufacturer, chemical and physical requirements, and methods of testing. Pages: 110</td>
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| **Spec 5LCP** | Specification on Coiled Line Pipe | 2nd Edition | G5LCP2 | $158.00 |
|               | (includes Errata 1 dated July 2007) | October 2006 | Effective Date: April 18, 2007 |
|               | Provides standards for pipe suitable for use in conveying gas, water, and oil in both the oil and natural gas industries. Covers welded steel continuously milled coiled line pipe in the size range 0.5 in. (12.7 mm) to 6.625 in. (168.3 mm). Pipe that is pipe-to-pipe welded outside the confines of the manufacturing plant is not included within this document. Pages: 42 |

| **Spec 5LD** | CRA Clad or Lined Steel Pipe | 4th Edition | G5LD04 | $157.00 |
|              | (includes Errata 1 dated June 2017) | March 2015 | Effective Date: September 3, 2015 |
|              | Covers seamless, centrifugal cast, and welded clad steel line pipe, and lined steel pipe with improved corrosion-resistant properties. The clad and lined steel line pipe specified in this document shall be composed of a base metal outside and CRA layer inside the pipe. The base material shall conform to Spec 5L, except as modified in the 5LC document. Provides standards for pipe with improved corrosion resistance suitable for use in conveying gas, water, and oil in both the oil and natural gas industries. Pages: 38 |

| **Spec 5ST** | Specification for Coiled Tubing—U.S. Customary and SI Units | 3rd Edition | G5STD04R | $125.00 |
|              | Covers the manufacturing, inspection, and testing of all carbon and low alloy steel coiled tubing in Grades CT70, CT80, CT90, CT100, and CT110, in the designations and wall thicknesses given in Table A.5, that can be used as work strings, completion strings, and static installations in oil and gas wells. Coiled tubing may be ordered to this specification. Coiled tubing is manufactured using the continuously milled process. This specification does not cover the joining of seamless or welded tubing segments in lengths less than 200 ft (61 m). Pages: 68 |

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<td>3rd Edition</td>
<td>G5LW03</td>
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<td>Recommended Practice for Truck Transportation of Line Pipe on Barges and Marine Vessels</td>
<td>3rd Edition</td>
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<td>$51.00</td>
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Bull 5T1
Imperfection and Defect Terminology
Provides terms and definitions and example figures of imperfections and defects that occur in manufacturing steel tubulars. The words “imperfection” and “defect” refer to metallurgical and other features of steel tubular products, which may or may not affect the performance of the products. Inspection requirements and acceptance criteria are not defined in this document, and are found instead in the respective product specification. Pages: 65
11th Edition | October 2017 | Product Number: G05T111 | Price: $138.00

Bull 5T1 *
Imperfection and Defect Terminology—Russian
Russian translation of Bull 5T1.
11th Edition | October 2017 | Product Number: G05T111R | Price: $111.00

TR 5TP
Torque-Position Assembly Guidelines for API Casing and Tubing Connections
Provides alternative connection assembly procedures to those found in Spec 5B (power turns) and those found in RP 5C1 (optimum torque). The procedures set forth are referred to as “torque-position” because the make-up torque and final position are used as acceptance criteria for the assembly operation. The connections are threaded in accordance with Spec 5B. The torque-position assembly parameters have been developed for most SC (short round thread casing), LC (long round thread casing), BC (buttress thread casing), and EU (external upset tubing) connections. Torque-position is a precision assembly method that relies on a controlled process for successful implementation. When defined threading and assembly procedures are followed, the performance of the resulting assembled connection is optimized. Pages: 30
1st Edition | December 2013 | Product Number: G5TP01 | Price: $124.00

TR STRSR22
Technical Report in SR22 Supplementary Requirements for Enhanced Leak Resistance LTC
Covers the supplemental requirements for Enhanced Leak Resistance LTC (SC22) connections and the changes in Spec 5CT, Std 5B, 5B1, and RP 5C1 needed to produce and inspect these connections. By agreement between the purchaser and manufacturer, the supplemental requirements for SR22 shall apply to connections manufactured in accordance with Spec 5CT. Pages: 24
1st Edition | June 2002 | Product Number: GSR221 | Price: $96.00

RP 5UE
Recommended Practice for Ultrasonic Evaluation of Pipe Imperfections
(includes Addendum 1 dated April 2009)
Describes procedures that may be used to “prove-up” the depth or size of imperfections. Included in this practice are the recommended procedures for ultrasonic prove-up inspection of new pipe using the Amplitude Comparison Technique and the Amplitude-Distance Differential Technique for evaluation of
  · surface breaking imperfections in the body of pipe, and
  · surface breaking and subsurface imperfections in the weld area of electric resistance, electric induction or laser welded pipe, and
  · surface breaking and subsurface imperfections in the weld area of arc welded pipe. Pages: 22
Product Number: GSUE02 | Price: $86.00

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bending moment. All flanges were analyzed with an axisymmetric finite model for each of the four load cases. A post-processor program was written to calculate the maximum moment capacity for various levels of pressure and tension, based on linear superposition of results. Three different criteria were used to establish the maximum moment:

• ASME Section VIII, Division 2 allowable stress categories for the flange with the basic membrane stress allowable established by API;
• allowable bolt stresses as established by API; and
• loss of preload on the ring joint.

The results of this post-processing are presented in plots of pressure vs. allowable moment for various tension levels. Limitations to this work include: the effects of transverse shear or torsion were not considered in the analysis; dynamic, fatigue, or fretting phenomena were not considered in these results; and thermal stresses or elevated temperature effects were not considered. The charts are intended to be used only as general guidelines for design. These charts are not intended to replace a critical evaluation of any particular connection in an application where the charts show the flange to be marginal. Pages: 79

3rd Edition | September 2008 | Product Number: G6AF03 | Price: $163.00

TR 6AF ✓
Technical Report on Capabilities of API Flanges Under Combinations of Load—Russian

Russian translation of TR 6AF.

3rd Edition | September 2008 | Product Number: G6AF03R | Price: $130.00

TR 6AF1
Technical Report on Temperature Derating of API Flanges Under Combination of Loading

Continuation to the report on the capabilities of flanges under combined loadings (PRAC 86-21) that resulted in the publication of Bull 6AF. Included in this technical report is an in-depth look into the effect of elevated temperatures of API flanges. The results in this report are analytical and assume a temperature gradient across the flange as stated in this report. Pages: 256

2nd Edition | November 1998 | Product Number: G06AF1 | Price: $171.00

TR 6AF2
Technical Report on Capabilities of API Integral Flanges Under Combination of Loading—Phase II

(includes Errata 1 dated November 2018)

Result of the evaluation of the load carrying capacity of Spec 6A integral flanges, including the end tension and bending moment in addition to the conventional rated pressure and makeup forces. The effect of a temperature difference corresponding to 250 °F on the inside and 30 °F on the outside is also evaluated. Three-dimensional finite element meshes are generated for the Type 6B and Type 6BX flanges. The computer program SESAM is used to obtain the stresses at selected critical flange and hub sections and to determine the gasket reaction due to each of the four unit load cases and the temperature difference load case. The leakage criterion is defined as the load combination with reduces the initial makeup compressive forces in the gasket to zero. The stresses in each defined section are linearized in accordance with the ASME Section VIII, Division 2 procedure to determine the membrane and membrane-plus-bending stress intensities. The stress intensities are checked against the allowable conditions specified in Spec 6A. Pages: 119

5th Edition | April 2013 | Product Number: G6AF25 | Price: $184.00

TR 6AM
Technical Report on Material Toughness

Includes CVN toughness requirement that can be used as a quality assurance measure in Spec 6A equipment to screen materials with poor notch toughness. Pages: 12

2nd Edition | September 1995 | Product Number: G06AM2 | Price: $82.00

Std 6AR ★
Repair and Remanufacture of Wellhead and Tree Equipment

Identifies the requirements for repair and remanufacture of wellhead and tree equipment under a quality management system and manufactured in conformance with API 6A for continued service when specified by the user/purchaser of the equipment.

This standard applies to equipment manufactured to editions of API 6A in which a product specification level (PSL) identifies the quality, material, and testing requirements for a specific product. Equipment identified as manufactured in conformance with API 6A prior to April 1986 (API 6A, 15th Edition) is outside the scope of this document. A repair and remanufacture specification level (RLS) is designated to provide the appropriate quality control requirements for the repair and remanufacture of wellhead and tree equipment under this standard. Pages: 25

2nd Edition | September 2019 | Product Number: G6AR02 | Price: $75.00

Spec 6AV1 ★
Validation of Safety and Shutdown Valves for Sandy Service

There are three service classes—Class I, Class II, and Class III—for API 6A surface safety valve (SSV), underwater safety valve (USV), or boarding shutdown valve (BSDV). This standard establishes sandy service design validation for valves to meet Class II and Class III.

Class II is intended to validate the valve bore sealing mechanism if substances such as sand can be expected to cause safety or shutdown valve failure.

Class III adds additional requirements and validation of the bonnet assembly inclusive of stem seals and may be selected by the user/purchaser. Validation to Class III also validates the same SSV/USV/BSDV for Class II in accordance with scaling limitations specified in the document. Pages: 32

3rd Edition | July 2018 | Product Number: G6AV103 | Price: $105.00

Std 6AV2
Installation, Maintenance and Repair of Surface Safety Valves and Underwater Safety Valves Offshore

(includes Errata 1 dated August 2014)

Provides requirements for installing and maintaining surface safety valves (SSV) and underwater safety valves (USV). Included are requirements for receiving inspection, installation and maintenance, field and offshore repair, testing procedures with acceptance criteria, failure reporting, and documentation. Power and control systems for SSV/USVs are not included.

This document is applicable to SSVs/USVs used or intended to be used as part of a safety system, as defined by documents such as API 14C. This standard is the revision of and supersedes RP 14H, 5th Edition. Pages: 29

1st Edition | March 2014 | Product Number: G6AV201 | Price: $146.00

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Spec 6D ◆ Specification for Pipeline and Piping Valves

Specifies requirements and provides recommendations for the design, manufacturing, testing, and documentation of ball, check, gate, and plug valves for application in pipeline systems meeting ISO 13623 or similar requirements for the petroleum and natural gas industries. This specification is not applicable to subsea pipeline valves, as they are covered by a separate specification (Spec 6DSS). This specification is not for application to valves for pressure ratings exceeding PN 420 (Class 2500).

24th Edition | August 2014 | Effective Date: August 1, 2015
Product Number: G6D024 | Price: $163.00

Spec 6D * Specification for Pipeline and Piping Valves—Chinese
Chinese translation of Spec 6D.

24th Edition | August 2014 | Product Number: G6D024C | Price: $114.00

Spec 6D * Specification for Pipeline and Piping Valves—Russian
Russian translation of Spec 6D.


RP 6DR Recommended Practice for the Repair and Remanufacture of Pipeline Valves

Provides guidelines for the repair and remanufacture of steel ball, check, gate, and plug valves normally used in pipeline applications, as defined by Spec 6D. This RP covers repair or remanufacturing of end user’s (owner’s) valves for continued service in the owner’s production applications. Repaired or remanufactured valves may not meet API and/or the OEM standard requirements for new valves. The owner is responsible for the correct application of valves repaired or remanufactured per this document. It does not cover repair or remanufacture of used or surplus valves intended for resale. Furthermore, field repair is outside the scope of this document.

2nd Edition | May 2012 | Product Number: G06DR2 | Price: $84.00

RP 6DR * Recommended Practice for the Repair and Remanufacture of Pipeline Valves—Russian

Russian translation of Spec RP 6DR.

2nd Edition | May 2012 | Product Number: G06DR2R | Price: $69.00

Spec 6DSS ◆ Specification for Subsea Pipeline Valves
(includes Errata 1 dated May 2018, Errata 2 dated July 2018 and Addendum 1 dated April 2019)

 Defines the requirements for the design, manufacturing, quality control, assembly, testing, and documentation of ball, check, gate, plug, and axial on-off valves for application in subsea pipeline systems for the petroleum and natural gas industries. The document contains requirements for both full-opening and reduced-opening valves.

3rd Edition | August 2017 | Product Number: G6DSS3 | Price: $179.00

Spec 6DSS * Specification for Subsea Pipeline Valves—Russian

Russian translation of Spec 6DSS.

3rd Edition | August 2017 | Product Number: G6DSS3R | Price: $143.00

Std 6DX/ISO 12490:2011 Standard for Actuator Sizing and Mounting Kits for Pipeline Valves

Defines the requirements for mechanical integrity and sizing of actuators used on valves manufactured under Spec 6D. It is applicable to all types of electric, pneumatic, and hydraulic actuators, inclusive of mounting kit, installed on pipeline valves. This document is not applicable to actuators installed on control valves, valves being used for regulation, valves in sub-sea service, handheld powered devices, stand-alone manually operated gearboxes, instrument tubing and associated fittings, and actuator control equipment.

This edition of Std 6DX is the identical national adoption of ISO 12490:2011.

1st Edition | October 2012 | Product Number: G66DX01 | Price: $142.00

Std 6DX/ISO 12490:2011 * Standard for Actuator Sizing and Mounting Kits for Pipeline Valves—Russian


1st Edition | October 2012 | Product Number: G66DX01R | Price: $114.00


Summarizes the results of four projects to test the performance of API and ANSI end connections in a fire test according to Spec 6FA. The appendixes present the analytical procedures used to generate performance prediction.

3rd Edition | April 1999 | Product Number: G06F13 | Price: $124.00

TR 6F2 Technical Report on Fire Resistance Improvements for API Flanges

Establishes recommended methods for improving the performance of standard API flanges when subjected to the adverse effects of external high temperatures induced by exposure to fires. This publication does not cover fire prevention, suppression, or firefighting practices.

3rd Edition | April 1999 | Product Number: G06F23 | Price: $118.00

Std 6FA Standard for Fire Test for Valves
(includes Errata 1 dated July 2018 and Errata 2 dated August 2018)

Establishes the requirements for testing and evaluating the pressure-containing performance of API 6A and API 6D valves when exposed to fire. The performance requirements of this document are intended to establish standard limits of acceptability regardless of size or pressure rating. This standard applies to valves with one or more closure members.

4th Edition | June 2018 | Product Number: G06FA4 | Price: $95.00

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Std 6FA * ■
Standard for Fire Test for Valves—Russian
Russian translation of Std 6FA.
4th Edition | June 2018 | Product Number: G06FA4R | Price: $76.00

Std 6FB ■
Standard for Fire Test for End Connectors
Establishes procedures for testing and evaluating the pressure-containing performance of API end connectors when exposed to fire. Valves, wellhead seals, or other related equipment are not included in the scope of this document. The performance requirements of this standard establish standard qualification criteria for all sizes and pressure ratings of end connectors. The procedures are presented in two parts: Part I represents conditions in an onshore or open offshore location, and Part II represents conditions in an offshore platform well bay. Pages: 27
4th Edition | May 2019 | Product Number: G06FB4 | Price: $75.00

Spec 6FD
Specification for Fire Test for Check Valves
Establishes the requirements for testing and evaluating the pressure containing performance of Spec 6A and Spec 6D check valves when exposed to fire. The performance requirements of this document are intended to establish standard limits of acceptability regardless of size or pressure rating. This document establishes acceptable levels of leakage through the test valve and also external leakage after exposure to a fire for a 30-minute time period. The burn period has been established on the basis that it represents the maximum time required to extinguish most fires. Fires of greater duration are considered to be of a major magnitude with consequences greater than those anticipated in this test. Pages: 9
Product Number: G06FD1 | Price: $97.00

Spec 6FD *
Specification for Fire Test for Check Valves—Russian
Russian translation of Spec 6FD.
1st Edition | February 1995 | Product Number: G06FD1R | Price: $78.00

RP 6HT
Heat Treatment and Testing of Carbon and Low Alloy Steel Large Cross Section and Critical Section Components
Supplements the heat treatment and testing requirements found in the API 6A equipment specification and not to replace them altogether. Heat treatment is a critical process that must be appropriate and controlled in order to produce parts that comply with design requirements. The specified mechanical properties may not necessarily be required or achieved through the entire section thickness of the production part(s). These procedures are intended to provide the manufacturer and end user with a means of ensuring that the qualification test coupon (QTC) is more representative of the mechanical properties in a large cross section component than can be expected with a standard API equipment specification QTC. Furthermore, these procedures are intended to provide to optimize the heat treatment and heat treatment response of large cross section components, thereby ensuring that the component has the required mechanical properties at the depth below the surface established by the manufacture at all critical locations. The recommend practice described herein suggests the requirements for batch-type bath quench and water spray quench-type heat treating practices. Pages: 9
2nd Edition | June 2013 | Reaffirmed: November 2018
Product Number: G6HT02 | Price: $93.00

Std 6X ■
Design Calculations for Pressure-Containing Equipment
Describes a design analysis methodology and requirements that apply to design verification of certain pressure-containing products and equipment in the oil and natural gas industry. The methods included in this document apply to designs where normative reference to this standard is made in an API product specification and to those components for which the methods of this standard are required or permitted. Methods are in accordance with the rules of Appendix 4 of the ASME Boiler and Pressure Vessel Code, 2004, Section VIII, Division 2. API has adopted slightly different stress limits from the ASME Boiler and Pressure Vessel Code, 2004. The criteria used assume defect-free, tough, and ductile material behavior. Pages: 20
2nd Edition | February 2019 | Product Number: G06X02 | Price: $71.00

Bull 6J
Bulletin on Testing of Oilfield Elastomers—A Tutorial
Contains a tutorial for the evaluation of elastomer test samples of actual elastomeric seal members intended for use in the oil and gas industry. It is also a review of the testing criteria, environments, evaluation procedures, guidelines for comparisons, and effects of other considerations on the evaluation of elastomeric seal materials and members. Pages: 15
1st Edition | February 1992 | Product Number: G03230 | Price: $86.00

Bull 6J *
Bulletin on Testing of Oilfield Elastomers—A Tutorial—Russian
Russian translation of Bull 6J.
1st Edition | February 1992 | Product Number: G03230R | Price: $69.00

TR 6J1
Elastomer Life Estimation Testing Procedures
The proposed procedure discussed in this publication outlines a technique based on the Arrhenius principle of chemical reaction rates, which permits the life of an elastomeric material to be estimated when exposed to a severe service environment. This is a companion document to Bull 6J, 2nd Edition. Pages: 14
1st Edition | August 2000 | Product Number: G06J11 | Price: $86.00

TR 6MET
Metallic Material Limits for Wellhead Equipment Used in High Temperature for API 6A and API 17D Applications
Examines mechanical properties of metallic materials used for API 6A and API 17D wellhead equipment for service above 250 °F. A total of eleven different alloys meeting API 6A, PSL 3 conditions were supplied “in condition” for testing. Materials in this test program included alloys common to the oil and gas industry. The alloys tested included low alloy steels, martensitic, precipitation hardened and duplex stainless steels, and nickel alloys. Yield strength reduction ratios at temperatures of 300 °F, 350 °F, 400 °F, and 450 °F are reported. Testing resulted in yield strength reduction ratios at 300 °F to 450 °F that ranged from 92 % to 87 % for the low alloy steels, 92 % to 88 % for the martensitic stainless steels, 81 % to 73 % for super duplex, 99 % to 89 % for the precipitation-hardened stainless steel, and 94 % to 89 % for the nickel alloys. The reported results represent an average over the different heats for each type of material. These results are intended to expand the data shown in API 6A for design and rating of equipment for use at elevated temperatures. Pages: 57
2nd Edition | August 2018 | Product Number: G06MET2 | Price: $118.00
**Spec 7-1/ISO 10424-1:2004** ◆

**Specification for Rotary Drill Stem Elements**

Replaces, in part, Spec 7, 40th Edition. Spec 7, Addendum 2 removes the following products now covered by this standard.
- upper and lower Kelly valves,
- square and hexagon Kellys,
- drill stem subs,
- drill collars,
- drilling and coring bits.

Tool joints, rotary shouldered connections, and gauging will remain in Spec 7 until they are moved into ISO documents in the future. This edition of Spec 7-1 is the identical national adoption of ISO 10424-1:2004. Pages: 87

1st Edition | February 2006 | Effective Date: September 1, 2006
Reaffirmed: April 2015 | Product Number: GX7101 | Price: $176.00

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**Spec 7-1/ISO 10424-1:2004** ◆

**Specification for Rotary Drill Stem Elements—Chinese**

Chinese translation of Spec 7-1.
1st Edition | February 2006 | Product Number: GX7101C | Price: $123.00

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**Spec 7-1/ISO 10424-1:2004** ◆

**Specification for Rotary Drill Stem Elements—Russian**

Russian translation of Spec 7-1.
1st Edition | February 2006 | Product Number: GX7101R | Price: $141.00

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**Spec 7-1/ISO 10424-1:2004** ◆

**Specification for Rotary Drill Stem Elements—Spanish**

Spanish translation of Spec 7-1.
1st Edition | February 2006 | Product Number: GX7101SP | Price: $176.00

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**Spec 7-2 ◆**

**Threading and Gauging of Rotary Shouldered Connections**
(includes Errata 1 dated August 2017 and Errata 2 dated November 2019)

Specifies requirements on rotary shouldered connections for use in petroleum and natural gas industries, including dimensional requirements on threads and thread gauges, stipulations on gauging practice and gauge specifications, as well as instruments and methods for inspection of thread connections. These connections are intended primarily for use in drill-string components.

Other supplementary specifications can be agreed between interested parties for special tolerance requirements, qualification, testing, inspection, and finishing. This standard applies both to newly manufactured connections and connections that are recut after service. It should be realized that recut connections are subject to additional inspection and testing—the user is referred to API 7G-2 for such information.

This standard is applicable to the following preferred rotary shouldered connection designs. These are traceable to an internationally supported system of gauges and calibration that can be described as number (NC) style, regular (REG) style, or full-hole (FH) style. Pages: 114


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**Spec 7F ◆**

**Oil Field Chain and Sprockets**
(includes Errata 1 dated May 2013)

Covers the manufacture of the components for, and the assembly and packaging of, single and multiple strand, numbers 40 through 240, standard and heavy series roller chains for oil field applications, including chain designation, chain length tolerance, tensile strength specifications, pin and bushing press-out specifications, and dynamic test requirements. For informational purposes, Annex A provides recommendations for installation, lubrication, and maintenance of oil field chain drives, and Annex B includes a basic description of roller chain sprockets. Pages: 29

8th Edition | November 2010 | Effective Date: May 1, 2011
Reaffirmed: April 2016 | Product Number: G7F008B | Price: $125.00

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**Spec 7F ◆**

**Oil Field Chain and Sprockets—Chinese**

Chinese translation of Spec 7F.
8th Edition | November 2010 | Product Number: G7F008C | Price: $89.00

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**RP 7G**

**Recommended Practice for Drill Stem Design and Operating Limits**
(includes Errata 1 dated May 2000, Addendum 1 dated November 2003, and Addendum 2 dated August 2009)

Covers recommendations for the design and selection of drill string members and includes considerations of hole angle control, drilling fluids, weight, and rotary speed. Tables and graphs are included that present dimensional, mechanical, and performance properties of new and used drill pipe; new tool joints used with new and used drill pipe; drill collars; and kellys. Recommended standards for inspection of used drill pipe, used tubing work strings, and used tool joints are included. Pages: 154

16th Edition | August 1998 | Effective Date: December 1, 1998
Reaffirmed: May 2015 | Product Number: G07G6A | Price: $210.00

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**RP 7G ◆**

**Recommended Practice for Drill Stem Design and Operating Limits—Kazakh**

Kazakh translation of RP 7G.

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Exploration and Production

Fax Orders: +1 303 397 2740
Online Orders: global.ihs.com

RP 7G *
Recommended Practice for Drill Stem Design and Operating Limits—Russian
Russian translation of RP 7G.

RP 7G-2/ISO 10407-2:2008 *
Recommended Practice for Inspection and Classification of Drill Stem Element Inspection
(includes Errata 1 dated October 2009)
Specifies the requirements for each level of inspection and procedures for the inspection and testing of used drill stem elements. This document has been prepared to address the practices and technology commonly used in inspection. This document also specifies the qualification of inspection personnel, a description of inspection methods, and apparatus calibration and standardization procedures for various inspection methods. The evaluation of imperfections and the marking of inspected drill stem elements is included. This edition of RP 7G-2 is the identical national adoption of ISO 10407-2:2008. Pages: 213
Product Number: G7XG201 | Price: $152.00

RP 7G-2/ISO 10407-2:2008 *
Recommended Practice for Inspection and Classification of Drill Stem Element Inspection—Spanish
Spanish translation of RP 7G-2.
1st Edition | August 2009 | Product Number: GX7G201SP | Price: $152.00

RP 7HU1
Safe Use of 2-Inch Hammer Unions for Oilfield Applications
(includes Errata 1 dated February 2014)
Sets forth procedural recommendations as well as an engineering solution to the mismatching of a female 2-in. Figure 402, a female 2-in. Figure 602, or a female 2-in. Figure 1002 hammer union component (sub) with a male 2-in. Figure 1502 hammer union component (wing nut) as described in 3.2. The procedural recommendations described in this recommended practice should be implemented to reduce further incidents. The engineering solution, which makes impossible the mating of female 2-in. Figure 402, 2-in. Figure 602, and/or 2-in. Figure 1002 subs with the wing nut of the 2-in. Figure 1502 hammer union, applies to the manufacture of new hammer union components and should not be applied in the modification of existing hammer union components due to unknown factors caused by field wear. Pages: 12
Product Number: H7HU11 | Price: $40.00

Spec 7K 
Drilling and Well Servicing Equipment
(includes Errata 1 dated May 2016, Errata 2 dated August 2016, and Errata 3 dated October 2017)
Provides general principles and specifies requirements for design, manufacture, and testing of new drilling and well-servicing equipment and of replacement primary load-carrying components manufactured subsequent to the publication of this specification. This specification is applicable to the following equipment:
• rotary tables;
• rotary bushings;
• high-pressure mud and cement hoses;
• piston mud-pump components;
• drawworks components;
• manual tongs;
• safety clamps not used as hoisting devices;
• blowout preventer (BOP) handling systems;
• pressure-relieving devices for high-pressure drilling fluid circulating systems;

Spec 7NRV *
 Specification for Drill String Non-Return Valves
(includes Addendum 1 dated December 2019)
Provides the minimum acceptable requirements for drill string non-return valve (NRV) equipment. It covers drill string non-return valves, non-return valve subs, non-return valve landing nipples, non-return valve equalizing heads, and all components that establish tolerances and/or clearances that may affect performance or interchangeability of the NRV equipment. Non-return valve subs, non-return valve landing nipples, non-return valve equalizing heads, and NRVs manufactured by different facilities or manufacturers may be supplied as separate items. Pages: 19
Product Number: G7NRV01 | Price: $76.00

Spec 7NRV *
Specification for Drill String Non-Return Valves—Chinese
Chinese translation of Spec 7NRV.
1st Edition | July 2006 | Product Number: G7NRV01C | Price: $53.00

HOISTING TOOLS

RP 8B
Recommended Practice for Procedures for Inspection, Maintenance, Repair, and Remanufacture of Hoisting Equipment
(includes Addendum 1 dated March 2019)
Provides guidelines and establishes requirements for inspection, maintenance, repair, and remanufacture of items of hoisting equipment manufactured according to Spec 8A, Spec 8C, or ISO 13535 used in drilling and production operations, in order to maintain the serviceability of this equipment. Items of drilling and production hoisting equipment covered are:
• crown-block sheaves and bearings;
• traveling blocks and hook blocks;
• block-to-hook adapters;
• connectors and link adapters;
• drilling hooks;

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Specifications for Wire Rope

Spec 9A *
Specification for Wire Rope—Chinese
Chinese translation of Spec 9A.
26th Edition | May 2011 | Product Number: G9A026C | Price: $83.00

RP 9B
Application, Care, and Use of Wire Ropes for Oil Field Service
Covers typical wire rope applications for the oil and gas industry. Typical practices in the application of wire rope to oil field service are indicated in Table 1, which shows the sizes and constructions commonly used. Because of the variety of equipment designs, the selection of other constructions than those shown is justifiable.
In oilfield service, wire rope is often referred to as wire line or cable. For the purpose of clarity, these various expressions are incorporated in this recommended practice. Pages: 44
14th Edition | October 2015 | Product Number: G9B014 | Price: $131.00

OIL WELL CEMENTS

Bull E3
Wellbore Plugging and Abandonment Practices
Addresses the environmental concerns related to well abandonment and inactive well practices. The primary environmental concerns are protection of usable aquifers from fluid migration; and isolation of hydrocarbon production and water injection intervals. Additional issues in the document include protection of surface soils and surface waters, future use, and permanent documentation of plugged and abandoned wellbores. Pages: 22
2nd Edition | April 2018 | Product Number: G11008 | Price: $149.00

Spec 10A *
Cements and Materials for Well Cementing
(includes Addendum 1 dated November 2019)
Specifies requirements and gives recommendations for six classes of well cements, including their chemical and physical requirements and procedures for physical testing.
This specification is applicable to well cement classes A, B, C, and D, which are the products obtained by grinding Portland cement clinker and, if needed, calcium sulfate, as an interground additive. Processing additives can be used in the manufacture of cement of these classes. Suitable set-modifying agents can be interground or blended during manufacture of class D cement. This specification is also applicable to well cement classes G and H, which are the products obtained by grinding clinker with no additives other than one or more forms of calcium sulfate, water, or chemical additives as required for chromium (VI) reduction. Pages: 76
The mitigation of shallow water flow zones in deepwater wells, which is based on API 10B-2, take into account the specialized testing requirements in areas including the North Sea, Norwegian Sea, Barents Sea, Kara Sea, Beaufort Sea, Chukchi Sea, Caspian Sea, and Black Sea.

Temperatures are found at shallow water depths. These conditions are found in areas including the North Sea, Norwegian Sea, Barents Sea, Kara Sea, Beaufort Sea, Chukchi Sea, Caspian Sea, and Black Sea.

The procedures contained in this document serve as guidance for the testing of well cement slurries and cement blends for use in a deepwater environment or wells drilled in areas with a low seafloor temperature or areas where low seafloor temperatures exist. For the purposes of this document the term “deepwater” includes areas where low seafloor temperatures exist, independent of water depth.

The test methods contained in this recommended practice, though generally based on API 10B-2, take into account the specialized testing requirements and unique wellbore temperature profiles found in deepwater wells or wells in areas with low seafloor temperatures. This document does not address the mitigation of shallow water flow zones in deepwater wells, which is addressed in RP 65. Pages: 32

Preparation and Testing of Foamed Cement Formulations at Atmospheric Pressure

Defines the test methods including the generation of unfoamed base and their corresponding foamed cement slurries at atmospheric pressure. These procedures are developed for foaming cement slurries with air, at atmospheric conditions, which could mimic a foam quality experienced with nitrogen at downhole conditions; they may be modified to accommodate other gases such as nitrogen. Slurries that are foamed with nitrogen, and their properties, will also be discussed within this standard as they are relevant to the scope of the standard.

This standard does not address testing at pressures above atmospheric conditions nor does this standard include or consider the effects of nitrogen solubility in the nitrogen fraction calculations. Pages: 40

Recommended Practice on Determination of Shrinkage and Expansion of Well Cement Formulations at Atmospheric Pressure

Provides the methods for the testing of well cement formulations to determine the dimension changes during the curing process (cement hydration) at atmospheric pressure only. This is a base document, because under real well cementing conditions shrinkage and expansion take place under pressure and different boundary conditions.

This edition of RP 10B-5 is the identical national adoption of ISO 10426-5:2004. Pages: 13

Recommended Practice on Determining the Static Gel Strength of Cement Formulations

This document specifies requirements and provides test methods for the determination of static gel strength (SGS) of the cement slurries and related materials under simulated well conditions.

This edition of RP 10B-6 is the modified national adoption of ISO 10426-6:2008. Pages: 7

Specification for Bow-Spring Casing Centralizers

Provides minimum performance requirements, test procedures, and marking requirements for bow-spring casing centralizers for the petroleum and natural gas industries. The procedures provide verification testing for the manufacturer’s design, materials, and process specifications and periodic testing to confirm the consistency of product performance. Spec 10D is not applicable to rigid or positive centralizers.

This edition of Spec 10D is the identical national adoption of ISO 10427-1:2001. Pages: 12

Recommended Practice for Centralizer Placement and Stop Collar Testing

Provides calculations for determining centralizer spacing, based on centralizer performance and desired standoff, in deviated and dogleg holes in wells for the petroleum and natural gas industries. It also provides a procedure for testing stop collars and reporting test results.

This edition of RP 10D-2 is the identical national adoption of ISO 10427-2:2004. Pages: 14

Preparation and Testing of Foamed Cement Formulations—Russian

Russian translation of Spec 10A.

Recommended Practice for Testing Well Cements—Russian

Russian translation of RP 10B-2.

Testing of Well Cements Used in Deepwater Well Construction

Provides procedures for testing well cement slurries and cement blends for use in a deepwater environment or wells drilled in areas with a low seafloor temperature or areas where low seafloor temperatures exist. For the purposes of this document the term “deepwater” includes areas where low seafloor temperatures exist, independent of water depth.

The procedures contained in this document serve as guidance for the testing of well cement slurries used in deepwater well construction. Additionally, testing methods contained in this document (most notably at mudline conditions) may also be used in those circumstances where low seafloor temperatures are found at shallow water depths. These conditions are found in areas including the North Sea, Norwegian Sea, Barents Sea, Kara Sea, Beaufort Sea, Chukchi Sea, Caspian Sea, and Black Sea.

The test methods contained in this recommended practice, though generally based on API 10B-2, take into account the specialized testing requirements and unique wellbore temperature profiles found in deepwater wells or wells in areas with low seafloor temperatures. This document does not address the mitigation of shallow water flow zones in deepwater wells, which is addressed in RP 65. Pages: 32

Preparation and Testing of Foamed Cement Formulations at Atmospheric Pressure

Defines the test methods including the generation of unfoamed base and their corresponding foamed cement slurries at atmospheric pressure. These procedures are developed for foaming cement slurries with air, at atmospheric conditions, which could mimic a foam quality experienced with nitrogen at downhole conditions; they may be modified to accommodate other gases such as nitrogen. Slurries that are foamed with nitrogen, and their properties, will also be discussed within this standard as they are relevant to the scope of the standard.

This standard does not address testing at pressures above atmospheric conditions nor does this standard include or consider the effects of nitrogen solubility in the nitrogen fraction calculations. Pages: 40

Recommended Practice on Determination of Shrinkage and Expansion of Well Cement Formulations at Atmospheric Pressure

Provides the methods for the testing of well cement formulations to determine the dimension changes during the curing process (cement hydration) at atmospheric pressure only. This is a base document, because under real well cementing conditions shrinkage and expansion take place under pressure and different boundary conditions.

This edition of RP 10B-5 is the identical national adoption of ISO 10426-5:2004. Pages: 13

Recommended Practice on Determining the Static Gel Strength of Cement Formulations

This document specifies requirements and provides test methods for the determination of static gel strength (SGS) of the cement slurries and related materials under simulated well conditions.

This edition of RP 10B-6 is the modified national adoption of ISO 10426-6:2008. Pages: 7

Specification for Bow-Spring Casing Centralizers

Provides minimum performance requirements, test procedures, and marking requirements for bow-spring casing centralizers for the petroleum and natural gas industries. The procedures provide verification testing for the manufacturer’s design, materials, and process specifications and periodic testing to confirm the consistency of product performance. Spec 10D is not applicable to rigid or positive centralizers.

This edition of Spec 10D is the identical national adoption of ISO 10427-1:2001. Pages: 12

Recommended Practice for Centralizer Placement and Stop Collar Testing

Provides calculations for determining centralizer spacing, based on centralizer performance and desired standoff, in deviated and dogleg holes in wells for the petroleum and natural gas industries. It also provides a procedure for testing stop collars and reporting test results.

This edition of RP 10D-2 is the identical national adoption of ISO 10427-2:2004. Pages: 14

Preparation and Testing of Foamed Cement Formulations—Russian

Russian translation of Spec 10A.
Spec 10F
Cementing Float Equipment Testing
Provides testing and marking requirements for cementing float equipment to be used in oil and natural gas well construction. Pages: 28

Spec 10F *
Cementing Float Equipment Testing—Russian
Russian translation of Spec 10F.

TR 10TR1
Cement Sheath Evaluation
Provides the current principles and practices regarding the evaluation and repair of primary cementations of casing strings in oil and gas wells. Cement bond logs, compensated logging tools, ultrasonic cement logging tools, and borehole fluid-compensated logging tools are covered. Pages: 124
2nd Edition | September 2008
Product Number: G10TR12 | Price: $157.00

TR 10TR1 *
Cement Sheath Evaluation—Kazakh
Kazakh translation of TR 10TR1.
2nd Edition | September 2008
Product Number: G10TR12K | Price: $125.00

TR 10TR1 *
Cement Sheath Evaluation—Russian
Russian translation of TR 10TR1.
2nd Edition | September 2008
Product Number: G10TR12R | Price: $125.00

TR 10TR2
Shrinkage and Expansion in Oilwell Cements
Presents the results of research into shrinkage and expansion of oilwell cements in the wellbore as well as a series of test methods and procedures developed to measure these phenomena. Pages: 57
Product Number: G10TR2R | Price: $133.00

TR 10TR2 *
Shrinkage and Expansion in Oilwell Cements—Russian
Russian translation of TR 10TR2.
1st Edition | July 1997 | Product Number: G10TR2R | Price: $105.00

TR 10TR3
Technical Report on Temperatures for API Cement Operating Thickening Time Tests
Summarizes work performed by the 1984-91 API Task Group on Cementing Temperature Schedules to update the temperatures in API well-simulation test schedules found in RP 10B. The Task Group reviewed the largest set of temperature data available to the industry to date, resulting in significant improvements to the temperatures in the well-simulation test schedules. Pages: 97
1st Edition | May 1999 | Reaffirmed: May 2005
Product Number: G10TR3R | Price: $171.00

TR 10TR3 *
Technical Report on Temperatures for API Cement Operating Thickening Time Tests—Russian
Russian translation of TR 10TR3.
1st Edition | May 1999 | Product Number: G10TR3R | Price: $136.00

TR 10TR4
Selection of Centralizers for Primary Cementing Operations
Provides the petroleum industry with information for three types of centralizers, their selection and application, and their advantages and limitations. Pages: 23
1st Edition | May 2008 | Product Number: G10TR40 | Price: $67.00

TR 10TR4 *
Selection of Centralizers for Primary Cementing Operations—Kazakh
Kazakh translation of TR 10TR4.
1st Edition | May 2008 | Product Number: G10TR40K | Price: $53.00

TR 10TR4 *
Selection of Centralizers for Primary Cementing Operations—Russian
Russian translation of TR 10TR4.
1st Edition | May 2008 | Product Number: G10TR40R | Price: $53.00

TR 10TR5
Methods for Testing of Solid and Rigid Centralizers
Provides the industry with methods for testing rigid and solid centralizers. Pages: 16
1st Edition | May 2008 | Product Number: G10TR50 | Price: $67.00

TR 10TR5 *
Methods for Testing of Solid and Rigid Centralizers—Kazakh
Kazakh translation of TR 10TR5.
1st Edition | May 2008 | Product Number: G10TR50K | Price: $53.00

TR 10TR5 *
Methods for Testing of Solid and Rigid Centralizers—Russian
Russian translation of TR 10TR5.
1st Edition | May 2008 | Product Number: G10TR50R | Price: $53.00

TR 10TR6
Evaluation and Testing of Mechanical Cement Wiper Plugs
Provides recommended testing, evaluation, and performance requirements for mechanical cement wiper plugs. Mechanical cementing wiper plugs are used in most application including casing, liners, drill pipe, and tubing for primary and remedial cementing operations where they serve multiple functions in well operations, such as the following:
• separation of fluids inside of pipe,
• wiping of materials from the inner surface of pipe,
• operation of a downhole tool,
• surface indication of a downhole event, and
• formation of a temporary pressure barrier. Pages: 46

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The objectives of this guideline are two-fold. The first is to help prevent and/or control flows just prior to, during, and after primary cementing operations includes the requirements for thread gauges, Annex J illustrates the components of a sucker rod lift method for the petroleum and natural gas industry. Annexes A through H provide the requirements for specific products. Annex I includes the requirements for thread gauges, Annex J illustrates the components of a sucker rod lift method for the petroleum and natural gas industry.

The specification does not cover specialty subsurface sucker rod pump accessories or special design components. Also, installation, operation, and maintenance of these products are not included in this specification; however, recommendations can be found in RP 11AR. Pages: 107

Product Number: G11AX13 | Price: $189.00

Spec 11B *
Specification for Sucker Rods, Polished Rods and Liners, Couplings, Sinker Bars, Polished Rod Clamps, Stuffing Boxes, and Pumping Tees

includes Errata 1 dated October 2010 and Errata 2 dated February 2011

Provides the requirements and guidelines for the design and rating of steel sucker rods and pony rods, polished rods, polished rod liners, couplings and sub-couplings, fiber reinforced plastic (FRP) sucker rods, sucker bars, polished rod clamps, stuffing boxes, and pumping tees as defined herein for use in the sucker rod lift method for the petroleum and natural gas industry. Although most of the discussion in this standard is focused on SWF, shallow flows can be mixtures of water, gas, gas hydrates, and formation fines. There is no single method of preventing SWF, and many of the activities described can require customization to fit individual well conditions. Pages: 71

2nd Edition | June 2018 | Product Number: G65102 | Price: $144.00

Std 65-2 ◆
Isolating Potential Flow Zones During Well Construction

Contains best practices for zone isolation in wells to prevent annular pressure and/or flow through or past pressure-containment barriers that are installed and verified during well construction. Well construction practices that may affect barrier sealing performance are mentioned along with methods to help ensure positive effects or to minimize any negative ones. The objectives of this guideline are two-fold. The first is to help prevent and/or control flows just prior to, during, and after primary cementing operations to install or “set” casing and liner pipe strings in wells. The second objective is to help prevent sustained casing pressure (SCP). The guidance from this document covers recommendations for pressure-containment barrier design and installation and well construction practices that affect the zone isolation process to prevent or mitigate annular fluid flow or pressure. Pages: 83

Product Number: G65202 | Price: $141.00

FIELD OPERATING EQUIPMENT

RP 11AR
Recommended Practice for Care and Use of Subsurface Pumps

(includes Errata dated December 2013)

Provides information on the proper selection, operation, and maintenance of subsurface pumps so the best economical life can be obtained. Pages: 50

Product Number: G11AR4 | Price: $135.00

Spec 11AX ◆
Specification for Subsurface Sucker Rod Pump Assemblies, Components, and Fittings

(includes Addendum 1 dated May 2019)

Provides the requirements and guidelines for the design of subsurface sucker rod pumps and their components as defined herein for use in the sucker rod lift method for the petroleum and natural gas industry.

The specification covers subsurface sucker rod pump assemblies (including insert and tubing), components, and fittings in commonly used bore sizes for the sucker rod lift method. Sufficient dimensional and material requirements are provided to assure interchangeability and standardization of all component parts.

13th Edition | May 2018 | Effective Date: November 1, 2018
Product Number: G11AX13 | Price: $141.00

Spec 11B *
Specification for Sucker Rods, Polished Rods and Liners, Couplings, Sinker Bars, Polished Rod Clamps, Stuffing Boxes, and Pumping Tees—Russian

Russian translation of Spec 11B.

27th Edition | May 2010 | Effective Date: November 1, 2010
2-Year Extension: February 2015 | Reaffirmed: January 2019
Product Number: G11B27 | Price: $168.00

Spec 11B *
Specification for Sucker Rods, Polished Rods and Liners, Couplings, Sinker Bars, Polished Rod Clamps, Stuffing Boxes, and Pumping Tees—Chinese

Chinese translation of Spec 11B.

27th Edition | May 2010 | Product Number: G11B27C | Price: $118.00

Spec 11B *
Specification for Sucker Rods, Polished Rods and Liners, Couplings, Sinker Bars, Polished Rod Clamps, Stuffing Boxes, and Pumping Tees—Russian

Russian translation of Spec 11B.


*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 11BR
Recommended Practice for the Care and Handling of Sucker Rods
Covers the care and handling of steel sucker rods, including guidelines on selection, allowable stress, proper joint makeup, corrosion control, and used rod inspection. Pages: 28
Product Number: G11BR09 | Price: $114.00

RP 11BR *
Recommended Practice for the Care and Handling of Sucker Rods—Chinese
Chinese translation of RP 11BR.
9th Edition | August 2008 | Product Number: G11BR09C | Price: $80.00

Spec 11E *
Specification for Pumping Units
(includes Errata 1 dated August 2015 and Addendum 1 dated April 2018)
Provides the requirements and guidelines for the design and rating of beam pumping units for use in the petroleum and natural gas industry. Included are all components between the carrier bar and the speed reducer input shaft. This includes the beam pump structure, the pumping unit gear reducer, and the pumping unit chain reducer. Only loads imposed on the structure and/or gear reducer by the polished rod load are considered in this specification. Also included are the requirements for the design and rating of enclosed speed reducers wherein the involute gear tooth designs include helical and herringbone gearing. The rating methods and influences identified in this specification are limited to single and multiple stage designs applied to beam pumping units in which the pitch-line velocity of any stage does not exceed 5,000 ft/min and the speed of any shaft does not exceed 3,600 r/min. This standard does not cover chemical properties of materials, installation and maintenance of the equipment, beam type counterbalance units, prime movers and power transmission devices outside the gear reducer, or control systems. Pages: 104
19th Edition | November 2013 | Effective Date: May 1, 2014
Product Number: G11E019 | Price: $184.00

Spec 11E *
Specification for Pumping Units—Chinese
Chinese translation of Spec 11E.
19th Edition | November 2013
Product Number: G11E019C | Price: $130.00

Spec 11E *
Specification for Pumping Units—Russian
Russian translation of Spec 11E.
19th Edition | November 2013
Product Number: G11E019R | Price: $147.00

RP 11ER
Recommended Practice for Guarding of Pumping Units
Provides a reference or guide for the design, manufacture, and installation of guards for oil well pumping units. It is based on practices that experience has shown to be functionally safe and practical. This recommended practice is intended to provide safeguards for all persons who are required to work around or on oil well pumping units. Pages: 17
3rd Edition | November 2009 | Reaffirmed: March 2015
Product Number: G11ER03 | Price: $87.00

RP 11G
Recommended Practice for Installation, Maintenance and Lubrication of Pumping Units
Provides guidance related to the proper installation, care, and maintenance of surface mounted beam pumping units, varieties of which are described in Spec 11E. Information provided in this document is of a general nature and is not intended to replace specific instruction provided by the pumping unit manufacturer. This document further establishes certain minimum requirements intended to promote the safe installation, operation, and servicing of pumping unit equipment. Pages: 26
9th Edition | November 2013 | Reaffirmed: July 2019
Product Number: G11G05 | Price: $93.00

TR 11L
Design Calculations for Sucker Rod Pumping Systems (Conventional Units)
Covers recommendations for design calculations for conventional unit sucker rod pumping systems based on test data submitted to API by Sucker Rod Pumping Research, Inc. The topics include vibration characteristics of sucker rod strings, physical characteristics of sucker rods, and dimensional analysis of sucker rod pumping systems. The calculations apply to the broad category of average, normal pumping wells fitting the assumed conditions defined therein. Unused or out-of-the-ordinary conditions will cause deviations from calculated performance. Pages: 24
5th Edition | June 2008 | Product Number: G11L05 | Price: $115.00

Bull 11L2
Bulletin on Catalog of Analog Computer Dynamometer Cards
Contains over 1100 polished rod dynamometer cards taken with the electronic analog simulator and arranged in convenient form for comparison with field tests. Pages: 77
1st Edition | December 1969 | Reaffirmed: September 1999
Product Number: G05700 | Price: $133.00

Bull 11L3
Sucker Rod Pumping System Design Book
(includes Erata 1 dated November 1973 and Supplement 1 dated February 1977)
Contains print-out tables of computer calculated values for selecting sucker rod systems. Values are included for depths of 200 ft to 12,000 ft in increments of 500 feet, and production rates of 100 barrels per day to over 1,500 barrels per day in varying increments. Various rod string pump stroke, pump size, and pumping speed combinations that will do the job within the limiting parameters are listed. Pages: 574
1st Edition | May 1970 | Product Number: G05800 | Price: $143.00

TR 11L6
Technical Report on Electric Motor Prime Mover for Beam Pumping Unit Service
Covers polyphase, squirrel-cage, induction motors for use as the prime mover for beam pumping units (size range of 200 hp and below). Motors to be operated from solid-state or other types of variable frequency/variable voltage power supplies for adjustable speed applications will require individual consideration to provide satisfactory performance and are beyond the scope of this document. Motors conforming to this document are suitable for operation in accordance with their full load rating under ambient temperature at a maximum altitude of 1000 m (3300 ft) above sea level with outdoor sever duty application, including blowing dust or snow, corrosive atmospheres, high humidity, and cyclic loading. Pages: 13
2nd Edition | May 2008 | Product Number: G11L602 | Price: $94.00
This publication is a new entry in this catalog. ◆ This publication is related to an API licensing, certification, or accreditation program.
RP 11S7
Recommended Practice on Application and Testing of Electric Submersible Pump Seal Chamber Sections

Applies to the seal chamber section used in support of an electric submersible motor. The recommended practice contains tutorial, testing, and failure evaluation information on the seal chamber section used in support of an electric submersible motor. The document provides a general understanding of construction and functioning of seal chamber sections, identification of well conditions, system requirements, and characteristics that influence component section and application. Pages: 28
Product Number: G05947 | Price: $97.00

RP 11S8
Recommended Practice on Electric Submersible System Vibrations

Provides guidelines to establish consistency in the control and analysis of electric submersible pump (ESP) system vibrations. This document is considered appropriate for the testing of ESP systems and subsystems for the majority of ESP applications. This RP covers the vibration limits, testing, and analysis of ESP systems and subsystems. Pages: 18
2nd Edition | October 2012 | Product Number: G11S802 | Price: $84.00

LEASE PRODUCTION VESSELS

Spec 12B ♦
Specification for Bolted Tanks for Storage of Production Liquids

Covers material, design, fabrication, and testing requirements for vertical, cylindrical, aboveground, closed and open top, bolted steel storage tanks in various standard sizes and capacities for internal pressures approximately atmospheric. This specification is designed to provide the oil production industry with safe and economical bolted tanks of adequate safety and reasonable economy for use in the storage of crude petroleum and other liquids commonly handled and stored by the production segment of the industry. This specification is for the convenience of purchasers and manufacturers in ordering and fabricating tanks. Pages: 31
16th Edition | November 2014
Product Number: G12B156 | Price: $130.00

Spec 12D ♦
Specification for Field-Welded Tanks for Storage of Production Liquids

Covers material, design, fabrication, and testing requirements for vertical, cylindrical, aboveground, closed top, welded steel storage tanks with internal pressures approximately atmospheric at various sizes and capacities ranging from 500 to 10,000 barrels. This specification is designed to provide the oil production industry with tanks of adequate safety and reasonable economy for use in the storage of crude petroleum and other liquids commonly handled and stored by the production segment of the industry. This specification is for the convenience of purchasers and manufacturers in ordering and fabricating tanks. Pages: 29
12th Edition | June 2017 | Effective Date: December 1, 2017
Product Number: G12D12 | Price: $116.00

Spec 12F ♦
Specification for Shop-Welded Tanks for Storage of Production Liquids

Covers material, design, fabrication, and testing requirements for new shop-fabricated vertical, cylindrical, aboveground, welded steel storage tanks in the standard sizes and capacities, and for internal pressures approximately atmospheric, given in Table 1.

Spec 12J ♦
Specification for Oil and Gas Separators

Covers minimum requirements for the design, fabrication, and testing of oil and gas separators and oil-gas-water separators that are used in the production of oil and gas and are located at some point on the producing flowline between the wellhead and pipeline. Separators covered by this specification may be vertical, spherical, or single or double barrel horizontal. Unless otherwise agreed upon between the purchaser and the manufacturer, the jurisdiction of this specification terminates with the pressure vessel as defined in Section VII, Division 1 of the ASME Boiler and Pressure Vessel Code. Pressure vessels covered by this specification are normally classified as natural resource vessels. Separators outside the scope of this specification include centrifugal separators, filter separators, and desanding separators. Pages: 25
8th Edition | October 2008 | Effective Date: April 1, 2009
Product Number: G12J08 | Price: $105.00

Spec 12J *
Specification for Oil and Gas Separators—Chinese

Chinese translation of Spec 12J.
8th Edition | October 2008 | Product Number: G12J08C | Price: $74.00

Spec 12J *
Specification for Oil and Gas Separators—Russian

Russian translation of Spec 12J.
8th Edition | October 2008 | Product Number: G12J08R | Price: $84.00

Spec 12K ♦
Specification for Indirect Type Oilfield Heaters

Covers minimum requirements for the design, fabrication, and shop testing of oilfield indirect type fired heaters that are used in the production of oil, gas, and associated fluid. The heaters are located at some point on the producing flowline between the wellhead and pipeline. Heater components covered by this specification include the pressurized coiled, the shell, heater bath, firetube, and the firing system. For purposes of this specification, the termination of a heater coil is at the first bivel when coils are furnished beveled for welding, or the face of the first fitting when fittings are furnished as the inlet or outlet connection to the coil. All fittings and valves between the inlet and outlet of the coil are to be considered within the coil limit. Heaters outside the scope of this specification include steam and other vapor generators, reboilers, indirect heaters employing heat media other than water solutions, all types of direct fired heaters, shell-and-tube bundles or electrical heating elements, and coils operating at temperatures less than -20 °F. Pages: 36
8th Edition | October 2008 | Effective Date: April 1, 2009
Product Number: G12K08 | Price: $124.00

Spec 12K *
Specification for Indirect Type Oilfield Heaters—Chinese

Chinese translation of Spec 12K.
Spec 12L ◆ Spec 12L ◆
Specification for Vertical and Horizontal Emulsion Treaters

Covers minimum requirements for material, design, fabrication, and testing of vertical and horizontal emulsion treaters. Emulsion treating is normally conducted on crude oil immediately after it is separated from its associated gas in a vessel referred to as a treater or sometimes as a heater treater. High gas-oil ratio wells or those produced by gas lift may require the installation of an oil and gas separator upstream of the treater to remove most of the associated gas before the emulsion enters the treater. Where the water to oil ratio is high, freewater knockouts may be required upstream of the treater. The specification includes Addendum 1 dated December 2017.

5th Edition | October 2008 | Effective Date: April 1, 2009
Product Number: G12L05 | Price: $105.00

RP 12N
Recommended Practice for the Operation, Maintenance and Testing of Firebox Flame Arrestors

Covers practices that should be considered in the installation, maintenance, and testing of firebox flame arrestors installed on the air intake of oilfield production equipment.

Product Number: G12N02 | Price: $90.00

Spec 12P ◆ Spec 12P ◆
Specification for Fiberglass Reinforced Plastic Tanks

Covers material, design, fabrication, and testing requirements for fiberglass reinforced plastic (FRP) tanks. Only shop-fabricated, vertical, cylindrical tanks are covered. Tanks covered by this specification are intended for above ground and atmospheric pressure service. This specification applies to new tanks, the requirements may be applied to existing tanks at the discretion of the owner/operator. This specification is designed to provide the petroleum industry with various standard sizes of FRP tanks. Because of the versatility of FRP tanks, the user shall be responsible for determining the suitability of FRP tanks for the intended service. Unsupported cone bottom tanks are outside the scope of this specification.

4th Edition | February 2016 | Effective Date: August 1, 2016
Product Number: G12P04 | Price: $117.00

RP 12R1
Recommended Practice for Setting, Maintenance, Inspection, Operation, and Repair of Tanks in Production Service

For use as a guide for new tank installations and maintenance of existing tanks, Spec 12R1 contains recommendations for good practices in the collection of well or lease production; gauging; delivery to pipeline carriers for transportation; and other production storage and treatment operations. These recommended practices are intended primarily for application to tanks fabricated to Specs 12F, 12D, 12F, and 12P when employed in on-land production service, but its basic principles are applicable to atmospheric tanks of other dimensions and specifications when they are employed in similar oil and gas production, treating, and processing services. It is not applicable to refineries, petrochemical plants, marketing bulk stations, or pipeline storage facilities operated by carriers.

2-Year Extension: November 2015
Product Number: G12R15 | Price: $143.00

Spec 13A ◆ Spec 13A ◆
Drilling Fluids Materials

Covers physical properties and test procedures for materials manufactured for use in oil- and gas-well drilling fluids. The materials covered are barite; hematite; bentonite; non-treated bentonite; attapulgite; sepiolite; technical grade, low-viscosity carboxymethyl cellulose (CMC-LVT); technical grade, high-viscosity carboxymethyl cellulose (CMC-HVT); starch; low-viscosity polyacrylonitrile cellulose (PAC-LV); high-viscosity polyacrylonitrile cellulose (PAC-HV); and drilling-grade sodium gum. This specification is intended for the use of manufacturers, distributors, and end users of named products. Annex A (informative) contains information on the API Monogram Program and requirements for the approved use of the API Monogram by licensees.

19th Edition | October 2019 | Effective Date: April 2020
Product Number: G13A19 | Price: $205.00

RP 13B-1 ◆ RP 13B-1 ◆
Recommended Practice for Field Testing Water-Based Drilling Fluids

Provides standard procedures for determining the following characteristics of water-based drilling fluids:
- drilling fluid density (mud weight);
- viscosity and gel strength;
- filtration;
- water, oil, and solids contents;
- sand content;
- methylene blue capacity;
- pH;
- alkalinity and lime content;
- chloride content;
- total hardness as calcium;
- low-gravity solids and weighting material concentrations.

Annex A through K provide additional test methods that may be used for:
- chemical analysis for calcium, magnesium, calcium sulfate, sulfide, carbonate, and potassium;
- determination of shear strength;
- determination of resistivity;
- removal of air;
- drill-pipe corrosion monitoring;
- sampling, inspection, and rejection;
- rig-site sampling;
- calibration and verification of glassware, thermometers, timers, viscometers, retort cup, and drilling fluid balances);
- permeability plugging testing at high temperature and high pressure for two types of equipment;
- sag testing.

Pages: 132


RP 13B-2
Recommended Practice for Field Testing Oil-Based Drilling Fluids

Provides standard procedures for determining the following characteristics of oil-based drilling fluids:
- drilling fluid density (mud weight);
- viscosity and gel strength;
- filtration;
- oil, water, and solids concentrations;
- alkalinity, chloride concentration, and calcium concentration;
- electrical stability;
- lime and calcium concentrations, calcium chloride, and sodium chloride concentrations;
- low-gravity solids and weighting material concentrations.

Pages: 132

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The annexes provide additional test methods or examples that can optionally be used for the determination of:

- shear strength (Annex A);
- oil and water concentrations from cuttings (Annex B);
- drilling fluid activity (Annex C);
- aniline point (Annex D);
- lime, salinity, and solids concentration (Annex E);
- sampling, inspection, and rejection (Annex F);
- rig-site sampling (Annex G);
- cuttings activity (Annex H);
- active sulfide (Annex I);
- calibration and verification of glassware, thermometers, viscometers, retort kit cups, and drilling fluid balances (Annex J);
- high-temperature/high-pressure filtration using the permeability-plugging apparatus (PPA) (Annex K);
- elastomer compatibility (Annex L);
- sand content of oil-based fluid (Annex M);
- identification and monitoring of weight-material sag (Annex N);
- oil-based drilling fluid test report form (Annex O).

The annexes provide additional test methods or examples that can optionally be used for the determination of:

- temperature are presented because the agitation history and temperature have a profound effect on drilling fluid properties.

Recommended Practice for Laboratory Testing of Drilling Fluids

RP 131

Provides procedures for the laboratory testing of the physical, chemical, and performance properties of both drilling fluid materials and drilling fluid. It is applicable to both water- and oil-based drilling fluids, as well as the base or "make-up" fluid. It is not applicable as a detailed manual on drilling fluid control procedures. Recommendations regarding agitation and testing temperature are presented because the agitation history and temperature have a profound effect on drilling fluid properties.

This edition of RP 13I is the identical national adoption of ISO 10416:2008.

Pages: 108


Product Number: GX13I8 | Price: $202.00

RP 13J

Testing of Heavy Brines

Covers the physical properties, potential contaminants, and test procedures for heavy brine fluids manufactured for use in oil and gas well drilling, completion, fracturing, and workover fluids. RP 13J provides methods for assessing the performance and physical characteristics of heavy brines for use in field operations. It includes procedures for evaluating the density or specific gravity, the clarity or amount of particulate matter carried in the brines, the crystalization point or the temperature (both ambient and under pressure) at which the brines make the transition between liquid and solid, the pH, and iron contamination. It also contains a discussion of gas hydrate formation and mitigation, brine viscosity, corrosion testing, buffering capacity, and a standardized reporting form. RP 13J is intended for the use of manufacturers, service companies, and end users of heavy brines.

Pages: 76
Exploration and Production

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RP 13M/ISO 13503-1:2003
Recommended Practice for the Measurement of Viscous Properties of Completion Fluids
(RP 13M replaces RP 39)
Provides consistent methodology for determining the viscosity of completion fluids used in the petroleum and natural gas industries. For certain cases, methods are also provided to determine the rheological properties of a fluid. This edition of RP 13M is the identical national adoption of ISO 13503-1:2003. Pages: 21
1st Edition | July 2004 | Reaffirmed: September 2018
2-Year Extension: June 2015 | Product Number: GX13M01R | Price: $86.00

RP 13M/ISO 13503-1:2003 *
Recommended Practice for the Measurement of Viscous Properties of Completion Fluids—Russian
Russian translation of RP 13M.
1st Edition | July 2004 | Product Number: GX13M01R | Price: $86.00

Recommended Practice for Measuring Stimulation and Gravel-Pack Fluid Leakoff Under Static Conditions
Provides for consistent methodology to measure fluid loss of stimulation and gravel-pack fluid under static conditions. However, the procedure in this recommended practice excludes fluids that react with porous media. This edition of RP 13M-4 is the identical national adoption of ISO 13503-4:2006. Pages: 14
Product Number: GG13M41 | Price: $62.00

TR 13M-5
Procedure for Testing and Evaluating the Performance of Friction (Drag) Reducers in Aqueous-based Fluid Flowing in Straight, Smooth Circular Conduits
Provides a consistent methodology to test and evaluate the performance of friction (drag) reducers in straight, smooth circular conduits. This standard includes only smooth-walled tubing and excludes any rough-walled tubing. Pages: 22
1st Edition | October 2018 | Product Number: G13M501 | Price: $89.00

TR 13TR3
Size Measurement of Dry, Granular Drilling Fluid Particulates
Serves as a guide for selection of appropriate techniques to determine the particle size distribution (PSD) of relatively large, dry solid additives for drilling fluids, especially lost circulation materials (LCMs). Detailed procedures for the utilization of any specific PSD method are not included. The technician should refer to and be guided by the measurement equipment manufacturer’s instructions. The particulates range in size from approximately one micron to as much as several millimeters in diameter and are considered “granular” in shape, i.e., relatively isometric (of similar length, width, and height).

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The recommendations in this technical report generally are not applicable to the measurement of the PSD of non-isometric (high aspect ratio) materials, such as fibers or flakes. Pages: 32
1st Edition | October 2018 | Product Number: G13TR3 | Price: $103.00

OFFSHORE SAFETY AND ANTIPOLLUTION

Std 2CCU
Offshore Cargo Carrying Units
Defines the design, material, manufacture, inspection, repair, maintenance, and marking requirements for offshore cargo carrying units (CCU) and lifting sets to include dry goods boxes, baskets, and other skids designed to move equipment and goods offshore with maximum gross weight up to 70,000 kg (154,323 lb). Pages: 57
1st Edition | August 2017 | Product Number: G2CCUC01 | Price: $114.00

RP 14B
Design, Installation, Operation, Test, and Redress of Subsurface Safety Valve Systems
Establishes requirements and provides guidelines for subsurface safety valve (SSSV) system equipment. This includes requirements for SSSV system design, installation, operation, testing, repair, support activities, documentation, and failure reporting. SSSV system equipment addressed by this document includes control systems, control lines, SSSVs, and secondary tools as defined herein. SSSV types including surface controlled (SCSSV), sub-surface controlled (SSCSV), and sub-surface injection safety valves (SSISV) are included. Requirements for testing of SSSVs including frequency and acceptance criteria are included. Alternate technology SSSV equipment and systems are included in these requirements.

This document is not applicable to design, qualification, or repair activities for SSSVs. This document does not specify when a SSSV is required. Pages: 37
NOTE Spec 14A provides requirements for SSSV equipment design, qualification, and repair.
6th Edition | September 2015 | Product Number: G14B06 | Price: $137.00

RP 14C
Analysis, Design, Installation, and Testing of Safety Systems for Offshore Production Facilities
(includes Errata 1 dated May 2018)
Illustrates how system analysis methods can be used to determine safety requirements to protect common process components. This document also includes:
· a method to document and verify process safety system functions (i.e. SAFE chart);
· design guidance for ancillary systems such as pneumatic supply systems and liquid containment systems;
· a uniform method of identifying and symbolizing safety devices;
· procedures for testing common safety devices with recommendations for test data and acceptable test tolerances. Pages: 132
8th Edition | February 2017 | Product Number: G14C08 | Price: $249.00

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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.
RP 14E
Recommended Practice for Design and Installation of Offshore Production Platform Piping Systems

Recommends minimum requirements and guidelines for the design and installation of new piping systems on offshore production platforms. Includes general recommendations on design and application of pipe, valves, and fittings for typical processes; general information on installation, quality control, and items related to piping systems such as insulation; and specific recommendations for the design of particular piping systems. Pages: 61

Product Number: G07185 | Price: $161.00

5th Edition | October 1991
Product Number: 811-07185 CN940 | Price: $114.00

RP 14E *
Recommended Practice for Design and Installation of Offshore Production Platform Piping Systems—Chinese

Chinese translation of RP 14E.

5th Edition | October 1991
Product Number: 811-07185 CN940 | Price: $114.00

RP 14F
Recommended Practice for Design, Installation, and Maintenance of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Division 1, and Division 2 Locations

Recommends minimum requirements and guidelines for the design, installation, and maintenance of electrical systems on fixed and floating petroleum facilities located offshore. For facilities classified as Zone 0, Zone 1, or Zone 2, reference RP 14FZ. These facilities include drilling, producing, and pipeline transportation facilities associated with oil and gas exploration and production. This RP is not applicable to Mobile Offshore Drilling Units (MODUs) without production facilities. This document is intended to bring together in one place a brief description of basic desirable electrical practices for offshore electrical systems. The recommended practices contained herein recognize that special electrical considerations exist for offshore petroleum facilities. Pages: 189

6th Edition | October 2018 | Product Number: G14F06 | Price: $171.00

RP 14FZ
Recommended Practice for Design, Installation, and Maintenance of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Zone 0, Zone 1, and Zone 2 Locations

Recommends minimum requirements and guidelines for the design, installation, and maintenance of electrical systems on fixed and floating petroleum facilities located offshore. For facilities classified as Division 1 or Division 2, reference RP 14F. These facilities include drilling, producing, and pipeline transportation facilities associated with oil and gas exploration and production. This recommended practice (RP) is not applicable to Mobile Offshore Drilling Units (MODUs) without production facilities. This document is intended to bring together in one place a brief description of basic desirable electrical practices for offshore electrical systems. The recommended practices contained herein recognize that special electrical considerations exist for offshore petroleum facilities. These include:

- inherent electrical shock possibility presented by the marine environment and steel decks;
- space limitations that require that equipment be installed in or near hazardous (classified) locations;
- corrosive marine environment;
- motion and buoyancy concerns associated with floating facilities.

Pages: 177

2nd Edition | May 2013 | Product Number: G14F02 | Price: $303.00

RP 14G
Recommended Practice for Fire Prevention and Control on Fixed Open-Type Offshore Production Platforms

Presents recommendations for minimizing the likelihood of an accidental fire, and for designing, inspecting, and maintaining fire control systems. It emphasizes the need to train personnel in firefighting, to conduct routine drills, and to establish methods and procedures for safe evacuation. The fire control systems discussed are intended to provide an early response to incipient fires and prevent their growth. Applicable to fixed open-type offshore production platforms that are generally installed in moderate climates and that have sufficient natural ventilation to minimize the accumulation of vapors. Enclosed areas, such as quarters, buildings, and equipment enclosures, normally installed on this type platform, are addressed. Pages: 38

Product Number: G14G04 | Price: $135.00

RP 14I
Recommended Practice for Design and Hazards Analysis for Offshore Production Facilities

Provides useful procedures and guidelines for planning, designing, and arranging offshore production facilities and performing a hazards analysis on open-type offshore production facilities. Discusses several procedures that can be used to perform a hazards analysis, and presents minimum requirements for process safety information and hazards analysis that can be used for satisfying RP 75. Pages: 75

2nd Edition | May 2001 | Reaffirmed: September 2019
Product Number: G14I02 | Price: $128.00

Bull 91
Planning and Conducting Surface Preparation and Coating Operations for Oil and Natural Gas Drilling and Production Facilities in a Marine Environment

Worldwide, marine exploration, production, development, and decommissioning operations are conducted from a variety of structures. These installments must be inspected periodically and maintained in order to assure structural integrity and minimize pollution risks. Maintenance of an offshore structure, regardless of its classification, necessarily includes blasting and coating activities. The purpose of this publication is to establish practices and procedures that should be followed to minimize the discharge of spent blast abrasive, and paint overspray to the surrounding waters during these activities. Pages: 16

1st Edition | June 2007 | Product Number: G09101 | Price: $67.00

FIBERGLASS AND PLASTIC PIPE

RP 15CLT
Recommended Practice for Composite Lined Steel Tubular Goods

Provides guidelines for the design, manufacturing, qualification, and application of composite lined steel downhole tubing in the handling and transport of multiphase fluids, hydrocarbon gases, hydrocarbon liquids, and water. The principles outlined in this RP also apply to line pipe applications. Composite lined tubing typically consists of a fiber reinforced polymer liner within the steel host, providing protection of that steel host from corrosive attack. Both API and premium connections can be employed, typically using corrosive barrier rings to maintain corrosion resistance between ends of adjacent liners. This document contains recommendations on material selection, product qualification, and definition of safety and design factors. Quality control tests, minimum performance requirements are included. The RP applies to composite lined carbon steel for systems up to 10 in. (250 mm) diameter, operating at pressures up to 10,000 psi (69 MPa) and maximum temperatures of 300 °F (150 °C). The principles

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Spec 15HR ◆
High-Pressure Fiberglass Line Pipe
(includes Errata 1 dated August 2016)
Formulated to provide for the availability of safe, dimensionally, and functionally inter-changeable high-pressure fiberglass line pipe with a pressure rating from 500 lbf/in.² to 5000 lbf/in.² (3.45 MPa to 34.5 MPa), inclusive, in 250 lbf/in.² (1.72 MPa) increments for pipes ≤ than NPS 12 in. and 100 lbf/in.² (0.69 MPa) increments for pipes > than NPS 12 in. This specification is limited to mechanical connections and the technical content provides requirements for performance, design, materials, tests and inspection, marking, handling, storing, and shipping. Critical components are items of equipment having requirements specified in this document. This specification is applicable to rigid pipe components made from thermosetting resins and reinforced with glass fibers. Typical thermosetting resins are epoxy, polyester, vinyl ester, and phenolic. Thermoplastic resins are excluded from the scope of this specification. Any internal liners applied shall be made also from thermosetting resins. fiberglass line pipe for use in low-pressure systems are covered in Spec 15LR. This specification covers fiberglass pipe utilized for the production of oil and gas. Specific equipment covered by this specification is high-pressure line pipe and couplings, fittings, flanges, reducers, and adapters. Pages: 42

4th Edition | February 2018 | Effective Date: August 1, 2018
Product Number: G15HR4 | Price: $119.00

Spec 15LE ◆
Specification for Polyethylene Line Pipe (PE)
Provides standards for polyethylene (PE) line pipe suitable for use in conveying oil, gas, and non-potable water in underground, aboveground, and nonpotable water. The piping is intended for use in new construction, structural, pressure-rated liner, line extension, and repair of both aboveground and buried pipe applications. Specific equipment covered by this specification is listed as follows:

• PEX line pipe;
• fittings. Pages: 45

7th Edition | September 2018 | Product Number: G15PX1 | Price: $103.00

Spec 15S ◆
Spoolable Reinforced Plastic Line Pipe
(includes Errata 1 dated July 2016 and Addendum 1 dated October 2019)
Provides requirements for the manufacture and qualification of spoolable reinforced plastic line pipe in oilfield and energy applications including transport of multiphase fluids, hydrocarbon gasses, hydrocarbon liquids, oilfield production chemicals, and nonpotable water. Also included are performance requirements for materials, pipe, and fittings. These products consist of a liner with helically wrapped steel or nonmetallic reinforcing elements and an outer cover. The helical reinforcing elements shall be a single material. Additional nonhelical reinforcing elements are acceptable. The spoolable reinforced line pipe under this specification is capable of being spooled for storage, transport, and installation. For offshore use, additional requirements may apply and are not within the scope of this document. This specification is confined to pipe, end-fittings, and couplings and does not relate to other system components and appurtenances. Where other system components (e.g. elbows, tees, valves) are of conventional construction, they will be governed by other applicable codes and practices. Pages: 62

2nd Edition | March 2016 | Effective Date: September 1, 2016
Product Number: G15S02 | Price: $143.00

Spec 15S ◆
Spoolable Reinforced Plastic Line Pipe—Russian
Russian translation of Spec 15S.
2nd Edition | March 2016 | Product Number: G15S02R | Price: $114.00

RP 15TL4
Recommended Practice for Care and Use of Fiberglass Tubulars
Provides information on the transporting, handling, installing, and reconditioning of fiberglass tubulars in oilfield usage. Appendices are also included to cover adhesive bonding, repair procedures, and inspection practices. Pages: 20

2nd Edition | March 1999 | Reaffirmed: November 2018
Product Number: G15TL4 | Price: $105.00

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Properties and Production

RP 15WT Operations for Layflat Hose in Oilfield Water Applications
Provides guidelines and establishes recommended practices for the operation of layflat hose used for the transportation of water associated with onshore upstream oil and gas operations, to prevent damage of layflat hose and damage of layflat hose assemblies.
This document covers the transportation of formation water, injection water, brackish water, fresh water, and saline. The scope of this document excludes the initial and final connections of the layflat hose to the source and receiving points. Pages: 36
1st Edition | December 2019
Product Number: G15WT1 | Price: $105.00

DRILLING WELL CONTROL EQUIPMENT AND SYSTEMS

Spec 16A Specification for Drill-Through Equipment
(includes Errata 1 dated August 2017, Addendum 1 dated October 2017, Errata 2 dated November 2017, and Errata 3 dated April 2018)
Defines the requirements for performance, design, materials, testing and inspection, welding, marking, handling, storing, and shipping of drill-through equipment used for drilling for oil and gas.
Specifically, this document applies to the manufacture and testing of ram blowout preventers; ram blocks, packers, and top seals; annular blowout preventers; annular packing units; and associated connectors.
It also defines service conditions in terms of pressure, temperature, and wellbore fluids for which the equipment is designed.
Repair and remanufacture of 16A equipment is now covered in Std 16AR. This specification does not apply to field use or field. Pages: 122

Std 16AR Standard for Repair and Remanufacture of Drill-Through Equipment
(includes Errata 1 dated August 2017)
Specifies requirements for repair and remanufacture of drill-through equipment built under API 16A. This standard also applies to repair and remanufacture of drill-through equipment manufactured to API 6A requirements and produced prior to the existence of API 16A.
This standard also covers the testing, inspection, welding, marking, certification, handling, storing, and shipping of equipment repaired or remanufactured per this standard. Pages: 104
1st Edition | April 2017 | Product Number: G16AR01 | Price: $170.00

Spec 16C Choke and Kill Equipment
(includes Errata 1 dated July 2015, Errata 2 dated November 2015, Errata 3 dated February 2016, and Addendum 1 and Errata 4 dated July 2016)
Establishes the minimum requirements for the design and manufacture of following types of new equipment:
- articulated choke and kill lines;
- choke and kill manifold buffer chamber;
- choke and kill manifold assembly;
- drilling choke actuators;
- drilling choke controls;
- drilling chokes;
- flexible choke and kill lines;
- union connections used in choke and kill assemblies;
- rigid choke and kill lines;
- swivel unions used in choke and kill equipment.
These requirements were formulated to provide for safe and functionally interchangeable surface and subsea choke and kill system equipment utilized for drilling oil and gas wells.
2nd Edition | March 2015 | Product Number: G16C02 | Price: $163.00

Spec 16D Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Equipment
Establishes design standards for systems used to control blowout preventers (BOPs) and associated valves that control well pressure during drilling operations. The design standards applicable to subsystems and components do not include material selection and manufacturing process details but may serve as an aid to the purchaser. Although diverters are not considered well control devices, their controls are often incorporated as part of the BOP control system and therefore are included in this specification.
The requirements provided in this specification apply to the following control system categories: control systems for surface mounted BOP stacks; control systems for subsea BOP stacks (common elements); discrete hydraulic control systems for subsea BOP stacks; electro-hydraulic/multiplex control systems for subsea BOP stacks; control systems for diverter equipment; auxiliary equipment control systems and interfaces; emergency disconnect systems; backup systems; special deepwater/harsh environment features. Pages: 144
3rd Edition | November 2018 | Effective Date: May 1, 2019
Product Number: G16D03 | Price: $205.00

Spec 16F Specification for Marine Drilling Riser Equipment
(includes Errata 1 dated February 2019)
Establishes standards of performance and quality for the design, manufacture, and fabrication of marine drilling riser equipment used in conjunction with a subsea blowout preventer (BOP) stack.
This specification applies to all riser system components that are in the primary load path during operation, running, and retrieval, including but not limited to riser couplings, riser main tube, riser adapters, riser external lines when used for load sharing, riser tensioner rings, telescop joint, flex/ball joints, and special riser joints. Pages: 120
2nd Edition | November 2017 | Product Number: G16F02 | Price: $150.00

Spec 16F* Specification for Marine Drilling Riser Equipment—Russian
Russian translation of Spec 16F.
2nd Edition | November 2017 | Product Number: G16F02R | Price: $120.00

RP 16Q Design, Selection, Operation and Maintenance of Marine Drilling Riser Systems
Pertains to the design, selection, operation, and maintenance of marine riser systems for floating drilling operations. Its purpose is to serve as a reference for designers, for those who select system components, and for those who use and maintain this equipment. For the purposes of this standard, a marine drilling riser system includes the tensioner system and all equipment between the top connection of the upper flex/ball joint and the bottom connection of the lower flex/ball joint. It specifically excludes the diverter, LMRP BOP stack, and hydraulic connectors. Pages: 90
2nd Edition | April 2017 | Product Number: G16Q02 | Price: $132.00

RP 16Q* Design, Selection, Operation and Maintenance of Marine Drilling Riser Systems—Russian
Russian translation of RP 16Q.
2nd Edition | April 2017 | Product Number: G16Q02R | Price: $105.00

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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.
Spec 16RCD ◆
Specification for Rotating Control Devices

Formulated to provide for the availability of safe and functionally interchangeable rotating control devices (RCDs) utilized in air drilling, drilling operations for oil and gas, and geothermal drilling operations. Technical content provides requirements for design, performance, materials, tests and inspection, welding, marking, handling, storing, and shipping. This specification does not apply to field use or field testing of RCDs.
Critical components are those parts having requirements specified in this document. Pages: 52
2nd Edition | September 2015 | Effective Date: March 10, 2016
Product Number: G16RCD02 | Price: $168.00

RP 16ST
Coiled Tubing Well Control Equipment Systems

Addresses coiled tubing well control equipment assembly and operation as it relates to well control practices. Industry practices for performing well control operations using fluids for hydrostatic pressure balance are not addressed in this recommended practice. This document covers well control equipment assembly and operation used in coiled tubing intervention and coiled tubing drilling applications performed through:
• christmas trees constructed to standards stipulated in Spec 6A and/or Spec 11IW;
• a surface flow head or surface test tree constructed to standards stipulated in Spec 6A;
• drill pipe or workstrings with connections manufactured in accordance with Spec 7 and/or Spec 5CT.
Product Number: G16ST01 | Price: $157.00

TR 16TR1
BOP Shear Ram Performance Test Protocol
(includes Errata 1 dated October 2018)

Outlines the standardized test protocol, including data and reporting requirements, for performing sealing and non-sealing blowout preventer (BOP) shear ram performance tests. This protocol determines the parameters that can support field system performance and confidence in successful shearing and sealing.
This document is not intended to be used for qualifying BOP shear rams or as a factory acceptance test procedure. Qualification and factory acceptance testing of BOP shear rams is per API 16A. Pages: 30
1st Edition | July 2018 | Product Number: G16TR11 | Price: $105.00

Std 53
Well Control Equipment Systems for Drilling Wells

Provides requirements on the installation and testing of blowout prevention equipment systems on land and marine drilling rigs (barge, platform, bottom-supported, and floating). Blowout preventer equipment systems are comprised of a combination of various components. The following components are required for operation under varying rig and well conditions: blowout preventers (BOPs); choke and kill lines; choke manifolds; control systems; auxiliary equipment. The primary functions of these systems are to confine well fluids to the wellbore, provide means to add fluid to the wellbore, and allow controlled volumes to be withdrawn from the wellbore. Pages: 86
5th Edition | December 2018 | Product Number: G05305 | Price: $164.00

Online Orders: global.ihs.com

RP 59
Recommended Practice for Well Control Operations

Provides information that can serve as a voluntary industry guide for safe well control operations. This publication is designed to serve as a direct field aid in well control and as a technical source for teaching well control principles. This publication establishes recommended operations to retain pressure control of the well under pre-kick conditions and recommended practices to be utilized during a kick. It serves as a companion to RP 53 and RP 64. Pages: 92
2nd Edition | May 2006 | Reaffirmed: December 2018
Product Number: G59002 | Price: $133.00

RP 59 *
Recommended Practice for Well Control Operations—Kazakh
Kazakh translation of RP 59.

RP 59 *
Recommended Practice for Well Control Operations—Russian
Russian translation of RP 59.

Std 64
Diverter Equipment Systems
(includes Errata 1 dated March 2018 and Addendum 1 dated December 2018)

Provides information on the design, manufacture, quality control, installation, maintenance, and testing of the diverter system, and associated components. The diverter system provides a flow control system to direct controlled or uncontrolled wellbore fluids away from the immediate drilling area for the safety of personnel and equipment. Pages: 69
3rd Edition | August 2017 | Product Number: G64003 | Price: $149.00

SUBSEA PRODUCTION SYSTEMS

RP 17A
Design and Operation of Subsea Production Systems—General Requirements and Recommendations

Provides guidelines for the design, installation, operation, repair, and decommissioning of subsea production systems. The elements of subsea production systems included are wellheads (both subsea and mudline casing suspension systems) and trees; pipelines and end connections; controls, control lines, and control fluids; templates and manifolds; and production riser (both rigid and flexible). Other sections cover operations, quality assurance, materials, and corrosion. This is intended as an umbrella document to govern other parts of the subsea document suite of standards dealing with more detailed requirements for the subsystems that typically form part of a subsea production system. However, in some areas (e.g. system design, structures, manifolds, lifting devices, and color and marking) more detailed requirements are included herein, as these subjects are not covered in a subsystem standard.
The complete subsea production system comprises several subsystems necessary to produce hydrocarbons from one or more subsea wells and transfer them to a given processing facility located offshore (fixed, floating, or subsea) onshore, or to inject water/gas through subsea wells. Specialized equipment, such as split trees and trees and manifolds in atmospheric chambers, are not specifically discussed because of their limited use. However, the information presented is applicable to those types of equipment. Pages: 55
5th Edition | May 2017 | Product Number: G17AO5 | Price: $108.00

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RP 17B  
Recommended Practice for Flexible Pipe  
Provides guidelines for the design, analysis, manufacture, testing, installation, and operation of flexible pipes and flexible pipe systems for onshore, subsea, and marine applications. This recommended practice (RP) supplements Specs 17J and 17K, which specify minimum requirements for the design, material selection, manufacture, testing, marking, and packaging of unbonded and bonded flexible pipe, respectively. This RP applies to flexible pipe assemblies, consisting of segments of flexible pipe body with end fittings attached to both ends. Both bonded and unbonded pipe types are covered. In addition, this RP applies to flexible pipe systems, including ancillary components. The applications covered by this RP are sweet- and sour-service production, including export and injection applications. This RP applies to both static and dynamic flexible pipe systems used as flowlines, risers, and jumpers. This RP does cover, in general terms, the use of flexible pipes for offshore loading systems. This RP does not cover flexible pipes for use in choke and kill lines or umbilical and control lines. Pages: 268  
5th Edition | May 2014 | Product Number: G017B05 | Price: $249.00

Spec 17D/ISO 13628-4  
Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment  
Provides specifications for subsea wellheads, mudline wellheads, drill-through mudline wellheads, and both vertical and horizontal subsea trees. It specifies the associated tooling necessary to handle, test, and install the equipment. It also specifies the areas of design, material, welding, quality control (including factory acceptance testing), marking, storing, and shipping for both individual sub-assemblies (used to build complete subsea tree assemblies) and complete subsea tree assemblies. The user is responsible for ensuring subsea equipment meets any additional requirements of governmental regulations for the country in which it is installed. This is outside the scope of this document. Where applicable, this document can also be used for equipment on satellite, cluster arrangements and multiple well template applications. This document includes equipment definitions, an explanation of equipment use and function, an explanation of service conditions and product specification levels, and a description of critical components. This document is not applicable to the rework and repair of used equipment. Pages: 254  
2nd Edition | May 2011 | Effective Dates: February 1, 2013 [for Valve and Actuator Design Validation (Test Requirements) Only] and November 1, 2011 [for All Other Requirements]  
Reaffirmed: November 2018 | 2-Year Extension: July 2016  
Product Number: GX17D02 | Price: $202.00

Spec 17D/ISO 13628-4  
Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment—Chinese  
Chinese translation of Spec 17D.  
2nd Edition | May 2011 | Product Number: GX17D02C | Price: $142.00

Spec 17D/ISO 13628-4  
Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment—Russian  
Russian translation of Spec 17D.  
2nd Edition | May 2011 | Product Number: GX17D02R | Price: $162.00

Spec 17E  
Specification for Subsea Umbilicals  
(includes Addendum 1 dated December 2017)  
Specifies requirements and gives recommendations for the design, material selection, manufacture, design verification, testing, installation, and operation of subsea control systems, chemical injection, gas lift, utility and service umbilicals, and associated ancillary equipment for the petroleum and natural gas industries. This also applies to umbilicals containing electrical conductors, optical fibers, thermoplastic hoses, and metallic tubes, either alone or in combination, and applies to umbilicals that are for static or dynamic service, and with routings of surface-surface, surface-subsea, and subsea-subsea. Pages: 178  

Spec 17E  
Specification for Subsea Umbilicals—Russian  
Russian translation of Spec 17E.  

Std 17F  
Standard for Subsea Production Control Systems  
(includes Errata 1 dated July 2018 and Errata 2 dated May 2019)  
Applies to design, fabrication, testing, installation, and operation of subsea production control systems. Covers surface control system equipment, subsea-installed control system equipment, and control fluids. This equipment is utilized to control subsea production of oil and gas and for subsea water and gas injection services. Where applicable, this standard may be used for equipment on multiple-well applications. This document establishes design standards for systems, subsystems, components, and operating fluids in order to provide for the safe and functional control of subsea production equipment. It contains various types of information related to subsea production control systems that includes: informative data that provide an overview of the architecture and general functionality of control systems for the purpose of introduction and information; basic prescriptive data that shall be adhered to by all types of control systems; selective prescriptive data that are control-system-type sensitive and shall be adhered to only when they are relevant; and optional data or requirements that need be adopted only when considered necessary either by the purchaser or the vendor. Rework and repair of used equipment are beyond the scope of this standard. Pages: 239  
4th Edition | November 2017 | Product Number: G017F04 | Price: $262.00

Std 17G  
Design and Manufacture of Subsea Well Intervention Equipment  
Defines a minimum set of requirements for performance, design, materials, testing and inspection, hot forming, welding, marking, handling, storing, and shipping of new-build subsea well intervention equipment [through-BOP intervention riser system (TBIRS) and openwater intervention riser system (OWIRS)]. The requirements in this standard apply to equipment whose rated working pressure (RWP) is less than or equal to 103.4 MPa (15,000 psi) or whose rated temperature is less than or equal to 177 °C (350 °F). For equipment ratings that exceed these limits, see API 17TR8. Structural design methods and criteria given in API 17G are limited to components manufactured from materials that ensure ductile failure modes (e.g., carbon steels, low-alloy steels, and corrosion-resistant alloys). Components manufactured from materials that may not ensure ductile failure modes (e.g., composite materials, titanium, and titanium alloys) are outside the scope of this standard.

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The standard covers equipment that is connected to a fluid conduit tieback riser, either inside the marine riser (TBIRS) or open water (OWIRS). Intervention equipment, such as riserless light well intervention systems, downline connected equipment, and remotely operated vehicle (ROV) intervention equipment, are outside the scope of this standard. Pages: 280


RP 17G5 Subsea Intervention Workover Control Systems
Provides the requirements for the design, manufacture, and testing of intervention workover control systems (IWOCS). Equipment includes devices used in a thru-blowout preventer intervention riser system and an open-water intervention system.

Some requirements in this document are specific to the execution of end user-defined safety functions. This document defines “safety class control functions” used to operate safety class devices. This document provides guidance on the determination of safety class control functions based on the end user-provided safety functions. Pages: 42

1st Edition | November 2019 | Product Number: G17G501 | Price: $86.00

RP 17H Remotely Operated Tools and Interfaces on Subsea Production Systems
Provides functional requirements and guidelines for ROV/ROT/AUV interfaces in subsea production fields for the petroleum and natural gas industries. It is applicable to both the selection and use of ROV/ROT/AUV interfaces related to subsea production equipment and provides guidance on design as well as the operational requirements for maximizing the potential of standardized equipment and design principles. This recommended practice (RP) identifies the issues to be considered when designing for ROV/ROT/AUV operations to interact with (or near) subsea production systems. The framework and specifications set out enables the user (whether they may be on the ROV/ROT/AUV side or production facility side) to design the appropriate interface for a specific application. These interfaces include subsea docking, recharging, data transfer, data harvesting, and mechanical intervention. Pages: 112

3rd Edition | July 2019 | Product Number: G17H03 | Price: $160.00

Spec 17J Specification for Unbonded Flexible Pipe
(includes Errata 1 dated September 2016, Errata 2 dated May 2017, and Addendum 1 dated October 2017)
Defines the technical requirements for safe, dimensionally and functionally interchangeable flexible pipes that are designed and manufactured to uniform standards and criteria. Minimum requirements are specified for the design, material selection, manufacture, testing, marking, and packaging of flexible pipe assemblies, with reference to existing codes and standards where applicable. See RP 17B for guidelines on the use of flexible pipes and ancillary components. This specification applies to unbonded flexible pipe assemblies, consisting of segments of flexible pipe body with end fittings attached to both ends. This specification does not cover flexible pipes of bonded structure. This specification does not apply to flexible pipe ancillary components. Guidelines for bend stiffeners and bend restrictors are given in Annex B. This specification does not apply to flexible pipes that include non-metallic tensile armour wires. Pipes of such construction are considered as prototype products subject to qualification testing. The applications addressed by this document are sweet and sour service production, including export and injection applications. Production products include oil, gas, water, and injection chemicals. This specification applies to both static and dynamic flexible pipes used as flowlines, risers, and jumpers. This specification does not apply to flexible pipes for use in choke-and-kill line applications. Pages: 90

4th Edition | May 2014 | Effective Date: November 1, 2014 | Product Number: G017J04 | Price: $146.00

Spec 17K Specification for Bonded Flexible Pipe
Defines the technical requirements for safe, dimensionally and functionally interchangeable bonded flexible pipes that are designed and manufactured to uniform standards and criteria. Minimum requirements are specified for the design, material selection, manufacture, testing, marking, and packaging of bonded flexible pipes, with reference to existing codes and standards where applicable. This document applies to bonded flexible pipe assemblies, consisting of segments of flexible pipe body with end fittings attached to both ends. It does not cover flexible pipes of unbonded structure or to flexible pipe ancillary components. This document can be applied to flexible pipes that include non-metallic reinforcing layers, though no effort was made to address the specific and unique technological aspects of this product. Pages: 96

3rd Edition | August 2017 | Product Number: G17K03 | Price: $147.00

Spec 17L1 Specification for Flexible Pipe Ancillary Equipment
(includes Errata 1 dated January 2015 and Errata 2 dated November 2015)
Defines the technical requirements for safe, dimensionally and functionally interchangeable flexible pipe ancillary equipment that is designed and manufactured to uniform standards and criteria. Minimum requirements are specified for the design, material selection, manufacture, testing, documentation, marking, and packaging of flexible pipe ancillary equipment, with reference to existing codes and standards where applicable. The applicability relating to a specific item of ancillary equipment is stated at the beginning of the particular clause for the ancillary equipment in question. This document applies to the following flexible pipe ancillary equipment: bend stiffeners; bend restrictors; bellmouths; buoyancy modules and ballast modules; subsea buoys; tethers for subsea buoys and tether clamps; riser and tether bases; clamping devices; piggy-back clamps; repair clamps; /J-tube seals; pull-in heads/installation aids; connectors; load-transfer devices; mechanical protection; and fire protection. This document may be used for bonded flexible pipe ancillary equipment, though any requirements specific to these applications are not addressed. This document does not cover flexible pipe ancillary equipment beyond the connector, with the exception of riser bases and load-transfer devices. Therefore, this document does not cover turret structures or /tubes and J-tubes, for example. In addition, this document does not cover flexible pipe storage devices such as reels, for example. This specification is intended to cover ancillary equipment made from several material types, including metallic, polymer and composite materials. It may also refer to material types for particular ancillary components that are not commonly used for such components currently, but may be adopted more frequently in the future. Pages: 340

1st Edition | March 2013 | Product Number: G17L01 | Price: $184.00

RP 17L2 Recommended Practice for Flexible Pipe Ancillary Equipment
Provides guidelines for the design, materials selection, analysis, testing, manufacture, handling, transportation, installation, and integrity management of flexible pipe ancillary equipment. It presents the current best practice for design and procurement of ancillary equipment and gives guidance on the implementation of the specification for standard flexible pipe products. In addition, this document presents guidelines on the qualification of prototype products. The applicability relating to a specific item of ancillary equipment within this recommended practice is stated at the beginning of the clause dedicated to that item of ancillary equipment. This document applies to the following flexible pipe ancillary equipment: bend stiffeners; bend restrictors; bellmouths; buoyancy modules and ballast modules; subsea buoys; tethers for subsea buoys and tether clamps; riser and tether bases; clamping devices; piggy-back clamps; repair clamps; /J-tube seals; pull-in heads/installation aids; connectors; load-transfer devices; mechanical protection; and fire protection. This document may be used for bonded flexible pipe ancillary equipment, though any requirements specific to these applications are not addressed. Where relevant, the applicability of recommendations to umbilicals is indicated in the Applicability subclause for the ancillary equipment in question. This document does not cover flexible pipe ancillary equipment beyond the connector, with the exception of riser
This publication is a new entry in this catalog.

RP 17N
Recommended Practice on Subsea Production System Reliability, Technical Risk, and Integrity Management
Includes Addendum 1 dated May 2018

Provides a structured approach that organizations can adopt to manage uncertainty throughout the life of a project. This may range from the management of general project risk through to the identification and removal of potential failure modes in particular equipment.

This recommended practice aims to provide operators, contractors, and suppliers with guidance in the application of reliability techniques to subsea projects within their scope of work and supply only. It is applicable to standard and nonstandard equipment, and all phases of projects, from feasibility studies to operation.

It does not prescribe the use of any specific equipment or limit the use of any existing installed equipment or recommend any action, beyond good engineering practice, where current reliability is judged to be acceptable. It is also not intended to replace individual company processes, procedures, document nomenclature, or numbering; it is a guide. However, this recommended practice may be used to enhance existing processes, if deemed appropriate.

Most organizations will find much that is familiar and recognized as good practice. Some annex sections may only be of interest to a reliability specialist. The basic approach, however, is simple and consistent, and when applied correctly, has the potential to greatly reduce the financial risk of designing, manufacturing, installing, and operating subsea equipment.

Pages: 178

2nd Edition | June 2017 | Product Number: G17N02 | Price: $193.00

RP 17Q
Recommended Practice on Subsea Equipment Qualification

This recommended practice (RP) covers subsea manifolds and templates including testing, communications, and monitoring subsystems and ancillary equipment made from several material types, including metallic, polymer, and composite materials. It may also refer to material types for particular ancillary components that are not commonly used for such components currently, but may be adopted in the future.

This recommended practice (RP) covers subsea manifolds and templates used for pressure control in both subsea production of oil and gas, and subsea injection services. Equipment within the scope of this RP includes production and injection manifolds; modular and integrated single satellite and multwell templates; subsea processing and subsea boosting stations; flowline riser bases and export riser bases (FRB, ERB); pipeline end manifolds (PEM); pipeline end terminations (PLET); T- and Y-connections; subsea isolation valve structures (SSIV); subsea controls and distribution structures; and associated protection structures.

Pages: 76

2nd Edition | January 2019 | Product Number: G17Q02 | Price: $145.00

RP 17R
Recommended Practice for Subsea High Integrity Pressure Protection Systems (HIPPS)

Addresses the requirements for the use of high integrity pressure protection systems (HIPPS) for subsea applications. RP 14C, IEC 61508, and IEC 61511 specify the requirements for onshore, topsides, and subsea safety instrumented systems (SIS) and are applicable to HIPPS, which are designed to autonomously isolate downstream facilities from overpressure situations. This document integrates these requirements to address the specific needs of subsea production. These requirements cover the HIPPS pressure sensors, logic solver, shutdown valves, and ancillary devices including testing, communications, and monitoring subsystems.

Pages: 45

2nd Edition | July 2014 | Product Number: G17R02 | Price: $131.00

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than the production tubing (commonly referred to as the “A” annulus) could
that the risks outweigh the benefits since the risk of maintaining the pressure
In contrast, U.S. regulations (30
the design of subsea wellheads prohibit penetrations below the (BOP) stack.
barrier using a wellhead with penetrations is approximately 2.5 times that of
sustained casing pressure be reported immediately. The study concludes
processes by which the critical material properties, both static and dynamic,
the pressure sheath required for oil and gas production. These are most relevant to
subsea wellheads below the blowout preventer (BOP) stack so annuli other
Provides an evaluation of the risks and benefits of allowing penetrations in
An Evaluation of the Risks and Benefits of Penetrations in Subsea
Russian translation of TR 17TR3.
Subsea Equipment Pressure Ratings
The impact of operation in deep water on the pressure rating of equipment is
a special concern. The objective of this document is to foster a better understanding of the effects of simultaneous internal and external pressures on the internal pressure rating of well control equipment. Pages: 12
2nd Edition | May 2016 | Product Number: G17TR402 | Price: $71.00
TR 17TR5
Avoidance of Blockages in Subsea Production Control and Chemical Injection Systems
Addresses the avoidance of blockages in subsea production control and chemical injection systems (CISs). It includes requirements and gives recommendations for the design and operation of subsea production systems (SPSs) with the aim of preventing blockages in control and production chemical fluid (PCF) conduits and associated connectors/fittings. In the context of design, this covers not only installed subsea hardware (trees, manifolds, etc.) and the connecting linkages (jumper arrangements, umbilical systems, etc.) but also the fluids to be conveyed, initially from the fluid manufacturers’ facilities through to bunkering at the host facility and, ultimately, injection or usage at remote subsea locations.
The document also addresses the issues of topside equipment that provide the control and chemical injection (CI) services necessary for the operation and performance of a SPS. Pages: 44
1st Edition | March 2012 | Product Number: G17TR501 | Price: $107.00
TR 17TR6
Attributes of Production Chemicals in Subsea Production Systems
Identifies and specifies the essential attributes of production chemicals intended to be introduced to subsea oil and gas production systems. The document is intended for use by chemical suppliers to facilitate the provision of chemicals compatible with existing and intended subsea production systems (SPSs) although it is envisaged that use of the document for specification purposes by the operators of such processes will assist in ensuring the completeness of requests to supply.
This document specifies parameters that address manufacture, storage, and transportation of the production chemical, as well as its deployment using the SPS chemical injection system. The document provides for two approaches, requiring that parameters be either:
• measured and reconciled with SPS design and operation, or
• meet, or exceed, acceptance criteria specified, either in this document or by manufacturers of production chemicals or equipment used to deliver production chemicals.
This document is intended to be applicable to all subsea developments, irrespective of whether the development is in shallow or deep water. Pages: 42
1st Edition | March 2012 | Product Number: G17TR601 | Price: $107.00
*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.

This publication is a new entry in this catalog.
This publication is related to an API licensing, certification, or accreditation program.
TR 17TR7  Verification and Validation of Subsea Connectors
Provides requirements and recommendations for the verification and validation of subsea connectors. It is intended to serve as a common reference for designers, manufacturers, and users to improve the performance assessment of subsea connectors and to improve the reliability and integrity of subsea systems. This technical report is applicable to subsea connectors along the vertical centerline of subsea hardware (i.e. tree, tubing head, tree cap, tree running tool, well control package connectors, and EDP connectors), the subsea wellhead, and the completion/workover riser. The methodology provided herein may also be used in other connector designs. Connectors outboard of the vertical centerline are addressed in API 17R. Pages: 25
1st Edition | April 2017 | Product Number: G17TR71 | Price: $93.00

TR 17TR8  High-Pressure High-Temperature Design Guidelines (includes Errata 1 dated March 2019 and Addendum 1 dated April 2019)
Serves as a general design guideline for HPHT application. It provides design guidelines for oil and gas subsea equipment used in high-pressure high-temperature (HPHT) environments. Pages: 112
2nd Edition | March 2018 | Product Number: G17TR82 | Price: $150.00

TR 17TR9  Umbilical Termination Assembly (UTA) Selection and Sizing Recommendations
Identifies and describes:
- technical, commercial, and installation risks associated with high-functionality umbilicals and umbilical terminations (resulting in large and heavy umbilical termination assemblies (UTAs)), especially with respect to installation;
- implications of decisions made early in the umbilical and subsea umbilical termination (SUT) planning, selection, and design phases, to ease the manufacturing, handling, and final umbilical/UTA installation;
- guidance on specification and sizing of umbilical terminations, including overall size, weight, and handling requirements.
This document acts as a reference guide during the early field development planning stage to ensure that due consideration is given to the implications of the size of UTAs and possible consequences during installation. It is intended to be used as a reference guide by end users and operators, UTA and umbilical manufacturers, installers, and front-end engineering design (FEED) companies. The intention is that the document will enable the currently inherent installation difficulties to be addressed up front by the UTA designers, prior to commencing SUT design and functionality definition. It is advisable to be used as a reference document to enable reviews to be undertaken to ensure that installation risk has been properly considered as part of SUT design and operations reviews on a case-by-case basis. Pages: 53
1st Edition | August 2017 | Product Number: G17TR91 | Price: $113.00

TR 17TR10  Subsea Umbilical Termination (SUT) Design Recommendations
Provides best practice technical guidance for subsea umbilical design (SUT) design, in order to aid in making informed choices during the design phase. This document was generated in response to the increasing difficulties in installation of high-functionality SUTs, due to their increasing size.
This document is intended to be used as a reference guide by operators, umbilical termination assembly (UTA) and umbilical specifiers, installers, and front-end engineering design (FEED) companies. It is also intended to be used as a reference document to enable reviews to be undertaken to ensure that installation risk has been properly considered as part of SUT design and operation reviews. Additionally, the document has been designed to be educational such that persons new to the industry, or, less experienced persons within the industry, can understand the implications of UTA design on installation feasibility. Pages: 36
1st Edition | March 2016 | Product Number: G17TR131 | Price: $131.00

This document aims at capturing the primary aspects impacting on the overall dimensions and weight of the UTA, and highlighting the consequences of design choices.
This document excludes multihub connection-type (MHC) UTAs that can connect the umbilical directly to other subsea hardware. Although MHC UTAs are out of scope, many of the guidelines in this document would apply. Pages: 66
1st Edition | December 2015 | Product Number: G17TR101 | Price: $113.00

TR 17TR11  Pressure Effects on Subsea Hardware During Flowline Pressure Testing in Deep Water
Provides guidance to the industry on allowable pressure loading of subsea hardware components that can occur during hydrotesting of subsea flowlines and risers and during pre-commissioning leak testing of these systems. There are potential problems with confusion arising from high hydrostatic pressure in deep water, partially due to the variety of applicable test specifications and partly from the inconsistent use of a variety of acronyms for pressure terminology. Pages: 11
1st Edition | September 2015 | Product Number: G17TR111 | Price: $87.00

TR 17TR12  Consideration of External Pressure in the Design and Pressure Rating of Subsea Equipment
Addresses issues related to the effects of external pressure acting on subsea equipment installed in deepwater for containing or controlling wellbore fluids. External pressure at deepwater can significantly reduce the differential pressure acting on the well of subsea equipment; therefore, this can improve its internal pressure containment capability. External pressure is typically ambient seawater pressure, but in some cases, external pressure may be due to the hydrostatic head of drilling mud, completion fluids, or other fluids contained within risers or other conduits that connect the subsea equipment to surface facilities.
This document provides guidance for subsea equipment designers/manufacturers to properly account for external pressure (or in some cases, differential pressure) when designing and validating subsea equipment. Additionally, this technical report provides guidance to equipment purchaser/end-user to appropriately select rated equipment for their subsea systems with consideration to the effects of external pressure in addition to internal pressure, including differential pressure across a closure mechanism, and other applied mechanical or structural loads under all potential operating scenarios and functionality criteria.
It is necessary that users of this technical report be aware of regulations from jurisdictional authority that may impose additional or different requirements to the consideration of external pressure or differential pressure in equipment designs. Pages: 28
1st Edition | March 2015 | Product Number: G17TR121 | Price: $103.00

TR 17TR13  General Overview of Subsea Production Systems
Subsea production systems can range in complexity from a single satellite well with a flowline linked to a fixed platform to several wells on a template producing and transferring via subsea processing facilities to a fixed or floating facility or directly to an onshore installation. The objectives of this document are to describe typical examples of the various subsystems and components that can be combined, in a variety of ways, to form complete subsea production systems; to describe the interfaces with typical downhole and topsides equipment that are relevant to subsea production systems; and to provide some basic design guidance on various aspects of subsea production systems. Pages: 100
1st Edition | March 2016 | Product Number: G17TR131 | Price: $131.00
RP 17U
Recommended Practice for Wet and Dry Thermal Insulation of Subsea Flowlines and Equipment
Provides guidance for the performance, qualification, application, quality control, handling, and storage requirements of wet and dry thermal insulation for subsea applications in the petroleum and gas industries. This guideline also covers the inspection of the insulation, and the repair of insulation defects. For flowlines, the installation method is not defined and may be either S-lay, J-lay, or reel-lay. This guideline is intended to cover all three installation methods. This guideline also takes into consideration the design and structural handling of subsea trees, manifolds, pipeline end terminations (PLETs), flowline jumpers, etc., as it pertains to the placement of structure, sacrificial anodes, handling appurtenances, etc., to ensure the integrity of the insulation's construction.
This recommended practice is applicable to the following systems and components:
- flowlines and risers;
- christmas tree, valve block, and piping;
- manifold valves and pipework;
- PLET piping;
- jumpers (i.e. piping and bends);
- connectors and fittings;
- valves and chokes. Pages: 24
1st Edition | February 2015 | Product Number: G17U01 | Price: $81.00

RP 17V
Recommended Practice for Analysis, Design, Installation, and Testing of Safety Systems for Subsea Applications (includes Errata 1 dated July 2015)
Presents recommendations for designing, installing, and testing a process safety system for subsea applications. The basic concepts of subsea safety systems are discussed and protection methods and requirements of the system are outlined. For the purposes of this document, "subsea system" includes all process components from the wellhead (and surface controlled subsurface safety valve [SCSSV]) to upstream of the boarding shutdown valve. For gas injection, water injection, and gas lift systems, the shutdown valve is within the scope of this document.
This document is a companion document to API 14C, which provides guidance for topsides safety systems on offshore production facilities. Some sections of this document refer to API 14C for safety system methodology and processes. This recommended practice illustrates how system analysis methods can be used to determine safety requirements to protect any process component. Actual analyses of the principal components are developed in such a manner that the requirements determined will be applicable whenever the component is used in the process. The safety requirements of the individual process components may then be integrated into a complete subsea safety system. The analysis procedures include a method to document and verify system integrity. The uniform method of identifying and symbolizing safety devices is presented in API 14C and adopted in this recommended practice. Pages: 63
1st Edition | February 2015 | Product Number: G17V01 | Price: $152.00

RP 17V *
Recommended Practice for Analysis, Design, Installation, and Testing of Safety Systems for Subsea Applications—Russian
Russian translation of RP 17V.
1st Edition | February 2015 | Product Number: G17V01R | Price: $122.00

RP 17W
Recommended Practice for Subsea Capping Stacks
Contains subsea capping stack recommended practices for designing, building, and using, as well as maintaining and testing during storage. The document focuses on:
- topics for drafting a Basis of Design (BOD) document that could be used to constructing a new subsea capping stack,
- topics that may drive improvements for existing subsea capping stack equipment, and
- topics for drafting plans for storing, transporting, maintaining, and testing a subsea capping stack.
Other important elements of a complete subsea capping stack system that are addressed in this document include:
- minimal documentation requirements,
- minimal analysis and modeling that should accompany any subsea capping stack design,
- competencies of personnel who operate, maintain, and test subsea capping stacks, and
- potential unknowns/risks that may be encountered with incident wells that impact the use of a subsea capping stack and relevant contingency procedures.
While it is not within the scope of this document to recommend procedures to use a subsea capping stack, this document does contain example procedures for reference only. These procedures are not presented as a recommended practice but rather to indicate to industry that the preparation and use of such procedures is a recommended practice. Pages: 65
1st Edition | July 2014 | Product Number: G17W01 | Price: $136.00

COMPLETION EQUIPMENT
Spec 11D1/ISO 14310:2008 *
Packers and Bridge Plugs
(includes Errata 1 dated August 2019)
Provides requirements and guidelines for packers and bridge plugs as defined herein for use in the petroleum and natural gas industry. This specification provides requirements for the functional specification and technical specification, including design, design verification and validation, materials, documentation and data control, repair, shipment, and storage. In addition, products covered by this specification apply only to applications within a conduit. Installation and maintenance of these products are outside the scope of this specification.
This specification includes requirements for the following:
- HPHT environment equipment;
- HPHT environment operational tools;
- external flow testing.
This edition of Spec 11D1 is the modified national adoption of ISO 14310:2008. Pages: 62
3rd Edition | April 2015 | Effective Date: October 9, 2015
Product Number: G11D103 | Price: $124.00

Spec 11D1/ISO 14310:2008 *
Packers and Bridge Plugs—Russian
Russian translation of Spec 11D1.
3rd Edition | April 2015 | Product Number: G11D103R | Price: $100.00

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RP 11V5
Recommended Practices for Operation, Maintenance, Surveillance, and Troubleshooting of Gas-Lift Installations
Assists gas-lift system operators, analysts, technicians, engineers, and others in understanding how to effectively plan, operate, maintain, troubleshoot, and provide surveillance for gas-lift systems and gas-lift wells. These recommended practices discuss continuous gas-lift with injection in the casing/tubing annulus and production up the tubing. Annular flow gas-lift (injection down the tubing and production up the annulus), dual gas-lift (two tubing strings in the same casing), and intermittent gas-lift are mentioned; however, most of the discussion focuses on conventional continuous gas-lift. Pages: 123
Product Number: G11V53 | Price: $168.00

RP 11V6
Recommended Practice for Design of Continuous Flow Gas Lift Installations Using Injection Pressure Operated Valves
Sets guidelines for continuous flow gas lift installation designs using injection pressure operated valves. The assumption is made that the designer is familiar with and has available data on the various factors that affect a design. Pages: 88
Product Number: G11V62 | Price: $161.00

RP 11V8
Recommended Practice for Gas Lift System Design and Performance Prediction
Emphasizes gas lift as a system and discusses methods used to predict its performance. Information must be gathered and models validated prior to a system design, which must precede wellbore gas lift mandrel and valve design. The subsurface and surface components of the system must be designed together to enhance the strengths of each and to minimize the constraints. Pages: 79
Product Number: G11V81 | Price: $130.00

Spec 14A *
Specification for Subsurface Safety Valve Equipment
(includes Errata 1 dated July 2015 and Addendum 1 dated June 2017)
Provides the requirements for subsurface safety valves (SSSVs), and the secondary tools as defined herein necessary to establish the features included in them, including all components that establish tolerances and/or clearances that may affect performance or interchangeability of the SSSV components. It includes repair operations and the surface connections to control conduits and/or other equipment, but does not cover the connections to the primary well conduit. Pages: 140
Product Number: G14A12 | Price: $244.00

Spec 14L/ISO 16070:2005 *
Specification for Lock Mandrels and Landing Nipples
Provides the requirements for lock mandrels and landing nipples within the production/injection conduit for the installation of flow control or other equipment used in the petroleum and natural gas industries. It includes the interface connections to the flow control or other equipment, but does not cover the connections to the well conduit.
This edition of Spec 14L is the identical national adoption of ISO 16070:2005. Pages: 25
Product Number: G14L02 | Price: $130.00

Spec 14L/ISO 16070:2005 *
Specification for Lock Mandrels and Landing Nipples—Chinese
Chinese translation of Spec 14L.
2nd Edition | July 2007 | Product Number: GX14L02C | Price: $92.00

Spec 19AC/ISO 14998:2013 *
Specification for Completion Accessories
Provides requirements and guidelines for completion accessories, as defined herein, for use in the petroleum and natural gas industry. This international standard provides requirements for the functional specification and technical specifications, including design, design verification and validation, materials, documentation and data control, quality requirements, redress, repair, shipment, and storage. This international standard covers the pressure-containing, nonpressure-containing, load-bearing, disconnect/reconnect, tubing-movement, and opening-/port functionalities of completion accessories. Products covered under another API or international specification are not included. Also not included are other products such as liner/tubing hangers, downhole well test tools, inflow control devices, surface-controlled downhole chokes, downhole artificial lift equipment, control lines and fittings, and all functionalities relating to electronics or fiber optics. This international standard does not cover the connections to the well conduit. Installation, application, and operation of these products are outside the scope of this international standard.
This edition of Spec 19AC is the modified national adoption of ISO 14998:2013. Pages: 63
1st Edition | September 2016
Product Number: G19AC01 | Price: $121.00

RP 19B *
Recommended Practice for Evaluation of Well Perforators (formerly RP 43)
(includes Addendum 1 dated April 2014 and Addendum 2 dated December 2014)
Describes standard procedures for evaluating the performance of perforating equipment so that representations of this performance may be made to the industry under a standard practice. Also contains tests to gauge performance under the following conditions:
- ambient temperature and pressure,
- simulated wellbore (stressed Berea sandstone),
- elevated temperature.
This edition also introduces a procedure to quantify the amount of debris that comes out of the perforating gun during detonation. Pages: 42
Product Number: G019B2 | Price: $133.00

RP 19B *
Recommended Practice for Evaluation of Well Perforators—Chinese (formerly RP 43)
Chinese translation of RP 19B.
2nd Edition | September 2006
Product Number: G019B2C | Price: $94.00

RP 19B *
Recommended Practice for Evaluation of Well Perforators—Kazakh (formerly RP 43)
Kazakh translation of RP 19B.
2nd Edition | September 2006
Product Number: G019B2K | Price: $107.00

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RP 19B *
Recommended Practices for Evaluation of Well Perforators—Russian
Russian translation of RP 19B.
2nd Edition | September 2006
Product Number: G019B2R | Price: $107.00

Std 19C
Measurement of and Specifications for Proppants Used in Hydraulic Fracturing and Gravel-Packing Operations
Provides standard testing procedures for evaluating proppants used in hydraulic fracturing and gravel-packing operations. The objective of this standard is to provide a consistent methodology for testing performed on hydraulic fracturing and/or gravel-packing proppants. These procedures have been developed to improve the quality of proppants delivered to the well site. They are for use in evaluating certain physical properties used in hydraulic fracturing and gravel-packing operations. Pages: 57
2nd Edition | August 2018 | Product Number: GX19C02 | Price: $122.00

Spec 19C1
Measurement of and Specifications for Proppants Used in Hydraulic Fracturing and Gravel-Packing Operations—Russian
Russian translation of Std 19C.
1st Edition | August 2018 | Product Number: GX19C02R | Price: $96.00

RP 19D/ISO 13503-5:2006 *
Measuring the Long-Term Conductivity of Proppants—Russian
Russian translation of RP 19D.
1st Edition | May 2008 | Product Number: GX19D01R | Price: $94.00

Spec 19CI
Downhole Chemical Injection Devices and Related Equipment
Provides requirements for chemical injection devices intended for use in the worldwide petroleum and natural gas industry. This includes requirements for specifying, selecting, design verification, validation testing, manufacturing, quality control, testing, and preparation for shipping of chemical injection devices. These requirements include in-line debris screen systems, single-use shearable/frangible devices, and information on performance testing and calibration procedures. The installation and retrieval of chemical injection devices and systems is outside the scope of this document (see API 19G2 and API 19G3). Pages: 118
1st Edition | June 2019 | Product Number: G19C01 | Price: $162.00

Spec 19G2/ISO 17078-2:2007 *
Flow-Control Devices for Side-Pocket Mandrels
(includes Addendum 1 dated January 2019)
Provides requirements for subsurface flow-control devices used in side-pocket mandrels (hereafter called flow-control devices) intended for use in the worldwide petroleum and natural gas industry. This includes requirements for specifying, selecting, designing, manufacturing, quality-control, testing, and preparation for shipping of flow-control devices. Additionally, it includes information regarding performance testing and calibration procedures. The installation and retrieval of flow-control devices is outside the scope of Spec 19G2. Additionally, Spec 19G2 is not applicable to flow-control devices used in center-set mandrels or with tubing-retrievable applications. Spec 19G2 does not include requirements for side-pocket mandrels, running, pulling, and kick-over tools, and latches that might or might not be covered in other API/ISO specifications. Reconditioning of used flow-control devices is outside of the scope of Spec 19G2.
This edition of Spec 19G2 is the modified national adoption of ISO 17078-2:2007. Pages: 132
Product Number: GX19G21 | Price: $168.00

Spec 19G3/ISO 17078-3:2009 *
Running Tools, Pulling Tools and Kick-Over Tools and Latches for Side-Pocket Mandrels
Provides requirements and guidelines for running tools, pulling tools, kick-over tools, and latches used for the installation and retrieval of flow control and other devices to be installed in side-pocket mandrels for use in the petroleum and natural gas industries. This includes requirements for specifying, selecting, designing, manufacturing, quality control, testing, and preparation for shipping of these tools and latches. Additionally, it includes information regarding performance testing and calibration procedures. The processes of installation, retrieval, maintenance, and reconditioning of used running, pulling, and kick-over tools and latches are outside the scope of Spec 19G3. Center-set and tubing retrievable mandrel applications are not covered.
This edition of Spec 19G3 is the identical national adoption of ISO 17078-3:2009. Pages: 43
1st Edition | June 2011 | Product Number: GG19G301
Reaffirmed: June 2019 | Price: $157.00

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gas-lift systems as effectively as possible. Therefore, every effort should be made to design and operate dual gas-lift. In some cases, dual gas-lift is problematic and often ineffective. It is not the purpose of this document to recommend the practice of dual gas-lift. However, many dually completed oil wells should be artificially lifted—initially, or after reservoir pressures have declined and/or water cuts have increased. Often it is difficult or even impossible to effectively produce both completions, dual completions typically have a higher initial cost, have more operating problems, are more difficult and expensive to work over, and may produce less efficiently.

Not addressed in this recommended practice are absolutes in the practices of intermittent gas-lift systems. This information is intended for well engineers who seek to gain a general understanding of the theory and practices of intermittent gas-lift systems. Not addressed in this recommended practice are absolutes in the range of variables for each well and field combination.

Recs gas-lift system operators, analysts, technicians, engineers, and others in understanding how to effectively plan, operate, maintain, troubleshoot, and provide surveillance for gas-lift systems and gas-lift wells. These recommended practices discuss continuous gas-lift with injection in the casing/tubing annulus and production up the tubing. Annular flow gas-lift (injection down the tubing and production up the annulus), dual gas-lift (two tubing strings in the same casing), and intermittent gas-lift are mentioned; however, most of the discussion focuses on conventional continuous gas-lift. Pages: 99

This publication is related to an API licensing, certification, or accreditation program. This document also contains three annexes. Annex A contains mathematical derivations and models of some of the most pertinent intermittent gas-lift calculations. Annex B contains a comprehensive example of an intermittent gas-lift design. Annex C describes how to use the Field.(U.S. Customary) Units Calculator and SI Units Calculator. Pages: 120

1st Edition | September 2018
Product Number: G19G101 | Price: $170.00

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

RP 19G10 Design and Operation of Intermittent Gas-Lift Systems
Covers the design and operation of intermittent gas-lift systems, including designs with chamber and plunger lift equipment. Included are the background and theory of each of these systems, as well as considerations for system design and operation. This information is intended for well engineers who seek to gain a general understanding of the theory and practices of intermittent gas-lift systems.

Not addressed in this recommended practice are absolutes in the development of an intermittent gas-lift system design or operation because of the range of variables for each well and field combination.

Pages: 45

1st Edition | January 2018 | Product Number: G19OH1 | Price: $118.00

This publication is related to an API licensing, certification, or accreditation program.
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Spec 19OH ✦
Openhole Isolation Equipment—Russian
Russian translation of Spec 19OH.
1st Edition | January 2018 | Product Number: G19OH1R | Price: $94.00

Spec 20B ✦
Open Die Shaped Forgings for Use in the Petroleum and Natural Gas Industry
(includes Errata dated December 2013)
Specifies requirements for the qualification and production of open die shaped forgings for use in API service components in the petroleum and natural gas industries when referenced by an applicable equipment standard or otherwise specified as a requirement for compliance.
This API standard is applicable to equipment used in the oil and natural gas industries where service conditions warrant the use of individually shaped open die forgings, including rolled rings. Examples include pressure containing or load-bearing components. Forged bar, rolled bar, and forgings from which multiple parts are removed are beyond the scope of this specification.
This API standard establishes requirements for four forging specification levels (FSL). These four FSL designations define different levels of forged product technical, quality and qualification requirements.
1st Edition | April 2013 | Product Number: G20B01 | Price: $93.00

Spec 20C ✦
Closed Die Forgings for Use in the Petroleum and Natural Gas Industry
Requires and gives recommendations for the design, qualification, and production of closed-die forgings for use in API service components in the petroleum and natural gas industries when referenced by an applicable equipment standard or otherwise specified as a requirement for compliance. Spec 20C is applicable to equipment used in the oil and natural gas industries where service conditions warrant the use of closed die forgings. Examples include pressure containing or load-bearing components.
This standard establishes requirements for four forging specification levels (FSL). These FSL designations define different levels of forged product technical, quality and qualification requirements.
2nd Edition | October 2015 | Effective Date: November 1, 2016 | Product Number: G20C02 | Price: $88.00

Spec 20A ✦
Carbon Steel, Alloy Steel, Stainless Steel, and Nickel Base Alloy Castings for Use in the Petroleum and Natural Gas Industry
(includes Addendum 1 dated September 2018)
Identifies requirements for the foundry qualification, production, design, marking, and documentation of carbon steel, alloy steel, stainless steel, and nickel-base alloy castings used in the petroleum and natural gas industries when referenced by an applicable API product standard or otherwise specified as a requirement for compliance.
This specification applies to castings used in the manufacture of pressure containing, pressure-controlling, and primary load-bearing components. Castings manufactured in accordance with this API standard may be produced using any industry standard casting method. This specification provides manufacturers with a fixed methodology to examine a qualification casting and to compare the results of that examination to a defined set of acceptance criteria. The results of the qualification testing by material grouping are then used to establish a baseline Casting Specification Level (CSL) for subsequently produced castings.
This specification also provides manufacturers with a fixed production testing methodology to determine if subsequently produced castings conform to the minimum requirements for the intended CSL. The intent is that the production castings meet the minimum CSL requirements established during qualification testing by material grouping and/or the minimum CSL specified by the purchaser.
2nd Edition | August 2017 | Product Number: G20A02 | Price: $94.00

Spec 19SS/ISO 17824:2009
Sand Screens
(includes Errata 1 dated November 2018)
Provides the requirements and guidelines for sand screens for use in the petroleum and natural gas industry. Included are the requirements for design, validation, and development of sand screens utilized in use in the petroleum and natural gas industries. The requirements of this International Standard are applicable to wire-wrap screens, pre-pack screens, and metal-mesh screens.
The following items are outside the scope of this International Standard:
• expandable and/or compliant sand screens, slotted liners, or tubing and accessory items, such as centralizers or bull plugs;
• shunt screen technology, inflow control devices, downhole sensors, and selective isolation devices, even where they can be an integral part of the sand screen;
• analysis for sand retention efficiency;
• end connections of the basepipe.
This edition of Spec 19SS is the modified national adoption of ISO 17824:2009. Pages: 79
1st Edition | July 2018 | Product Number: G19SS01 | Price: $174.00

Spec 19TT
Specification for Downhole Well Test Tools and Related Equipment
Provides the requirements for downhole well test tools and related equipment as they are defined herein for use in the petroleum and natural gas industries. Included are the requirements for design, validation, and development of sand screens utilized in use in the petroleum and natural gas industries. The requirements of this International Standard are applicable to wire-wrap screens, pre-pack screens, and metal-mesh screens.
The following items are outside the scope of this International Standard:
• expandable and/or compliant sand screens, slotted liners, or tubing and accessory items, such as centralizers or bull plugs;
• shunt screen technology, inflow control devices, downhole sensors, and selective isolation devices, even where they can be an integral part of the sand screen;
• analysis for sand retention efficiency;
• end connections of the basepipe.
This publication is a new entry in this catalog.
This publication is related to an API licensing, certification, or accreditation program.

Spec 19V ✦
Subsurface Completion Isolation (Barrier) Valves and Related Equipment
(includes Errata 1 dated September 2019)
Provides the requirements for subsurface completion isolation (barrier) valves and related equipment as they are defined herein for use in the petroleum and natural gas industries. Included are the requirements for design, validation, and development of subsurface isolation barriers utilized in use in the petroleum and natural gas industries. The requirements of this International Standard are applicable to wire-wrap screens, pre-pack screens, and metal-mesh screens.
The following items are outside the scope of this International Standard:
• expandable and/or compliant sand screens, slotted liners, or tubing and accessory items, such as centralizers or bull plugs;
• shunt screen technology, inflow control devices, downhole sensors, and selective isolation devices, even where they can be an integral part of the sand screen;
• analysis for sand retention efficiency;
• end connections of the basepipe.
This publication is a new entry in this catalog.
This publication is related to an API licensing, certification, or accreditation program.

Spec 19V02
Product Number: G19V02 | Price: $185.00

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**Std 20D**
Qualification of Nondestructive Examination Services for Equipment Used in the Petroleum and Natural Gas Industry

Specifies requirements for the application of nondestructive examination (NDE) methods as well as the development and qualification procedures used in the manufacturing, servicing, and/or service of equipment for the petroleum and natural gas industries.

This is applicable to suppliers providing NDE services for equipment used in the oil and natural gas industries. The requirements of this standard apply to magnetic particle, liquid penetrant, radiography, and ultrasonic methods of NDE. Pages: 30

2nd Edition | August 2019 | Product Number: G20D02 | Price: $101.00

**Spec 20E**
Alloy and Carbon Steel Bolting for Use in the Petroleum and Natural Gas Industries

(includes Addendum 1 dated September 2018 and Addendum 2 dated March 2019)

Specifies requirements for the qualification, production, and documentation of alloy and carbon steel bolting used in the petroleum and natural gas industries. This standard applies when referenced by an applicable API equipment standard or otherwise specified as a requirement for compliance. This standard establishes requirements for three bolting specification levels (BSL). These three BSL designations define different levels of technical, quality, and qualification requirements, BSL-1, BSL-2, and BSL-3. The BSLs are numbered in increasing levels of requirements in order to reflect increasing technical, quality, and qualification criteria. This standard covers the following finished product forms, processes, and sizes:

- machined studs;
- machined bolts, screws, and nuts;
- cold formed bolts, screws, and nuts with cut or cold formed threads (BSL-1 only);
- hot formed bolts and screws < 1.5 in. (38.1 mm) nominal diameter;
- hot formed bolts and screws ≥ 1.5 in. (38.1 mm) nominal diameter;
- roll threaded studs, bolts, and screws < 1.5 in. (38.1 mm) diameter;
- roll threaded studs, bolts, and screws ≥ 1.5 in. (38.1 mm) diameter;
- hot formed nuts < 1.5 in. (38.1 mm) nominal diameter;
- hot formed nuts ≥ 1.5 in. (38.1 mm) nominal diameter.

Pages: 23

2nd Edition | February 2017 | Product Number: G20ED02 | Price: $93.00

**Spec 20F**
Corrosion-Resistant Bolting for Use in the Petroleum and Natural Gas Industries

Specifies requirements for the qualification, production, and documentation of corrosion-resistant bolting used in the petroleum and natural gas industries. This standard applies when referenced by an applicable API equipment standard or otherwise specified as a requirement for compliance.

This standard establishes requirements for two bolting specification levels (BSLs). These two BSL designations define different levels of technical, quality, and qualification requirements: BSL-2 and BSL-3. The BSLs are numbered in increasing levels of requirements in order to reflect increasing technical, quality, and qualification criteria. BSL-2 and BSL-3 are intended to be comparable to BSL-2 and BSL-3 as found in API 20E. BSL-1 is omitted from this standard. Pages: 32

2nd Edition | April 2018 | Product Number: G20F02 | Price: $94.00

**Std 20H**
Heat Treatment Services—Batch Type for Equipment Used in the Petroleum and Natural Gas Industry

Specifies requirements for the qualification of suppliers of heat treatment services used in the manufacture of equipment for the petroleum and natural gas industries.

This standard is applicable to suppliers providing heat treatment services where API product standards require such services or otherwise specified as a requirement for conformance. The requirements of this standard apply to batch heat treatment operations that establish or affect the final mechanical properties and include stress relief operations. This standard applies to carbon steel, low-alloy steel, stainless steel, and nickel-base alloys. Case hardening, induction hardening, and flame hardening are not covered by this standard.

This standard establishes the requirements for three heat treatment specification levels (HSLs). These HSL designations define different levels of heat treatment technical, quality, and qualification requirements. Pages: 24

1st Edition | October 2015 | Product Number: G20H01 | Price: $71.00

**Std 20J**
Qualification of Distributors of Metallic Materials for Use in the Petroleum and Natural Gas Industries

Specifies requirements for the qualification of distributors of metallic materials used in the petroleum and natural gas industries. This standard is applicable to distributors of metallic bar, plate, and tubular products where API product standards require such services or are otherwise specified as a requirement for compliance. For organizations that manufacture and distribute metallic material, this standard only addresses the distribution portion of their processes. Pages: 36

1st Edition | May 2017 | Product Number: G20J01 | Price: $94.00

**Std 20L**
Qualification of Polymeric Seal Manufacturers for Use in the Petroleum and Natural Gas Industries

Specifies requirements for the qualification of manufacturers of polymeric seals used in the petroleum and natural gas industries. This standard is applicable to the manufacturers of polymeric seals where API product standards require such services or are otherwise specified as a requirement for compliance. This standard does not consider entities that solely perform assembly of outside manufactured parts as a polymeric seal manufacturer. Pages: 28

1st Edition | April 2018 | Product Number: G20L01 | Price: $71.00

**Std 20M**
Qualification of Suppliers of Machining Services for Use in the Petroleum and Natural Gas Industries

Specifies requirements for the qualification of suppliers of machining services where API product standards require such services or are otherwise specified as a requirement for compliance. Compliance with this standard is not required to demonstrate compliance with any other API standard or specification. This API standard establishes the requirements for three machining qualification levels (MQL 1, MQL 2, and MQL 3). These MQL designations define different levels of quality and qualification requirements. These MQLs are numbered in increasing levels of requirements in order to reflect increasing quality and qualification criteria.

Final assembly, component testing (e.g., nondestructive examination, pressure testing) or a broker of machining services are outside the scope of this standard. This standard applies when specified by the customer or voluntarily followed by the machining services supplier. Pages: 27

1st Edition | October 2017 | Product Number: G20M01 | Price: $78.00

This publication is a new entry in this catalog.  This publication is related to an API licensing, certification, or accreditation program.
Heat Treatment Services—Continuous Line for Equipment Used in the Petroleum and Natural Gas Industry

This standard is applicable to suppliers providing heat treatment services where API product standards specify this standard as a requirement for conformance. The requirements of this standard apply to continuous and semi-continuous heat treatment operations that can establish or affect the final mechanical properties. For batch type heat treatment, refer to API 20H. This standard is applicable to products in tubular, bar, plate, forgings, castings, and upset forged forms. Heat treat that imparts surface hardening or case hardening is outside the scope of this document. Pages: 27

1st Edition | August 2019 | Product Number: G20N01 | Price: $81.00

Materials Selection for Bolting

Provides guidance for the selection of materials and manufacturing processes for low-alloy steel bolting manufactured in accordance with API 20E and nickel-based and stainless alloys manufactured in accordance with 2OF. Table 2 and Table 3 are provided as guidance for materials selection of fasteners. Pages: 37

1st Edition | August 2019 | Product Number: G21TR101 | Price: $94.00

Standard Form for Hardcopy Presentation of Downhole Well Log Data

Provides an improved standard format for hardcopy presentation of downhole well log data. Standardizing the log form and data presentation allows the user to more easily combine a broad range of log data in order to interpret well status and performance. Pages: 18

Product Number: G31A01 | Price: $105.00

Recommended Practice for Analysis of Oilfield Waters

Provides analysis methods for the determination of dissolved and dispersed components in oilfield waters (produced water, injected water, aqueous workaround fluids, and stimulation fluids). Also includes the applications of oilfield water analyses; the proper collection, preservation, and labeling of field samples; a description of the various analytical methods available, including information regarding interferences, precision, accuracy, and detection limits; as well as the appropriate reporting formats for analytical results. Pages: 80

Product Number: G45003 | Price: $154.00

Natural Gas Processing Plant Practices for Protection of the Environment

Assists gas plant operators in understanding their environmental responsibilities. It is intended to be used primarily by environmental, engineering, and operations personnel and by management involved in building, maintaining, modifying, and operating gas processing plants. Operations within the scope of this standard include natural gas processing and associated gas compression facilities. This publication begins with initial plant planning, permitting, and construction and ends with plant closure and site restoration procedures. General guidelines are provided to be used at gas plant locations to develop site-specific environmental programs. Pages: 23

Product Number: G50002 | Price: $118.00

Onshore Oil and Gas Production Practices for Protection of the Environment

Provides environmentally sound practices to promote protection of the environment in domestic onshore oil and gas production operations. Production facilities, including produced water handling facilities, are covered. Coverage begins with design and construction of access roads and well locations and carries through to abandonment and site restoration activities. Pages: 17

3rd Edition | March 2001 | Reaffirmed: January 2013
Product Number: G51003 | Price: $56.00

Environmental Protection for Onshore Oil and Gas Production Operations and Leases

Provides environmentally sound practices, including reclamation guidelines, for domestic onshore oil and gas production operations. It is intended to be applicable to contractors as well as operators. Facilities within the scope of this document include all production facilities, including produced water handling facilities. Offshore and arctic areas are beyond the scope of this document. Operational coverage begins with the design and construction of access roads and well locations and includes reclamation, abandonment, and restoration operations. Gas compression for transmission purposes or production operations, such as gas lift, pressure maintenance, or enhanced oil recovery (EOR), is included. Annex A provides guidance for a company to consider as a “good neighbor.” Pages: 35

Product Number: G51R01 | Price: $82.00


Land Drilling Practices for Protection of the Environment

Provides guidelines to promote the protection of the environment in land drilling operations. Pages: 40

2nd Edition | July 1995 | Reaffirmed: September 2010
Product Number: G52002 | Price: $124.00

Recommended Practice for Oil and Gas Well Servicing and Workover Operations Involving Hydrogen Sulfide

Addresses personnel training, personnel protective equipment, contingency planning, and emergency procedures. Also included are classification of locations, materials and equipment, operations, rig practices, special operations, offshore operations, characteristics of hydrogen sulfide and sulfur dioxide, and evaluation and selection of hydrogen sulfide monitoring equipment. Pages: 54

Product Number: G68001 | Price: $82.00

Annular Casing Pressure Management for Offshore Wells

Serves as a guide for managing annular casing pressure in offshore wells. This guide is meant to be used for offshore wells that exhibit annular casing pressure, including thermal casing pressure, sustained casing pressure (SCP), and operator-imposed pressure. Covers monitoring, diagnostic testing, the establishment of a maximum allowable wellhead operating pressure (MAWOP), and documentation of annular casing pressure for the various types of wells that occur offshore. Included also is a discussion of risk assessment methodologies that can be used for the evaluation of individual well situations where the annular casing pressure is not within the MAWOP guidelines. Provides guidelines in which a broad range of casing annuli that exhibit annular pressure can be managed in a routine fashion while maintaining an acceptable level of risk. Pages: 84

1st Edition | August 2006 | Reaffirmed: January 2012
Product Number: G09001 | Price: $197.00
RP 90-2
Annular Casing Pressure Management for Onshore Wells
Serves as a guide to monitor and manage annular casing pressure (ACP) in onshore wells, including production, injection, observation/monitoring, and storage wells. This document applies to wells that exhibit thermally induced, operator-imposed, or sustained ACP. It includes criteria for establishing diagnostic thresholds (DTs), monitoring, diagnostic testing, and documentation of ACP for onshore wells. Also included is a discussion of risk management considerations that can be used for the evaluation of individual well situations where the annular casing pressure falls outside the established diagnostic thresholds.

This document recognizes that an ACP outside of the established DTs can result in a risk to well integrity. The level of risk presented by ACP depends on many factors, including the design of the well, the performance of barrier systems within the well, the source of the annular casing pressure, and whether there is an indication of annular flow exists. This document provides guidelines in which a broad range of casing annuli that exhibit annular casing pressure can be managed while maintaining well integrity. Pages: 60
1st Edition | September 2018 | Product Number: G92S01 | Price: $132.00

RP 92U
Underbalanced Drilling Operations (includes Addendum 1 dated November 2015)
Provides information that can serve as a guide for planning, installation, operation, and testing of underbalanced drilling equipment systems on land and offshore drilling rigs [barge, platform, bottom-supported, and floating with surface blowout preventers (BOP) installed] thereby ensuring consideration of personnel safety, public safety, integrity of the underbalanced drilling (UBD) equipment, and preservation of the environment for onshore and offshore UBD operations (including tripping of drill string). Pages: 72
Product Number: G92U01 | Price: $114.00

RP 96
Deepwater Well Design and Construction
Provides engineers a reference for deepwater (DW) well design as well as drilling and completion operations. This recommended practice (RP) will also be useful to support internal reviews, internal approvals, contractor engagements, and regulatory approvals.

The scope of this RP is to discuss DW drilling and completion activities performed on wells that are constructed using subsea blowout preventers (BOPs) with a subsea wellhead. This document addresses the following:

- Identifies the appropriate barrier and load case considerations to maintain well control during DW well operations (drilling, suspension, completion, production, and abandonment).
- Supplements barrier documentation in Std 65-2 with a more detailed description of barriers and discussion of the philosophy, number, type, testing, and management required to maintain well control. This document also supplements the barrier documentation in RP 90 in regard to annular pressure buildup. Abandonment barrier requirements are described for use when designing the well.
- Discusses load assumptions, resistance assumptions, and methodologies commonly used to achieve well designs with high reliability. The load case discussion includes less obvious events that can arise when unexpected circumstances are combined.
- Describes the risk assessment and mitigation practices commonly implemented during DW casing and equipment installation operations.

The purpose of this document is to enhance safety and minimize the likelihood of loss of well control or damage to the environment. These practices are generally intended to apply to subsea wells drilled with subsea BOPs in any water depth. Some of the descriptions of rig hardware and operations, such as remotely operated vehicles, are less relevant in shallower water depths [e.g. less than 500 ft (152 m)]. In these shallower water depths the operator may substitute alternative hardware or operations that maintain safety and system reliability.

The following aspects of DW well design and construction are outside the scope of this document:

- Detailed casing design load case definitions (does not include specific casing designs or design factors). Individual companies combine differing severities of loads and resistances or differencing calculation methods to achieve designs with similar high levels of reliability.
· Wells drilled and/or completed with a surface BOP and high pressure riser from a floating production system; however, considerations for wells predrilled with floating rigs to be completed to a floating production system are included.
· Well control procedures (refer to RP 59 for well control information).
· Managed pressure drilling operations (including dual gradient drilling).
· Production operations and fluids handling downstream of the tree (subsea facilities/subsea architecture and surface facilities/offloading hydrocarbon).
· Intervention operations.
· Quality assurance programs. Pages: 158

1st Edition | March 2013 | Product Number: G09601 | Price: $189.00

Bull 97

Well Construction Interface Document Guidelines

Contains the structure and contents of a well control interface document (WCID) that links the drilling contractor's safety case with the lease operator's safety management system. It includes well-specific information such as the basis of design, the well execution plan, and critical well activity risk assessment. This document exhibits how management of change and risk assessment processes will apply during well construction activities and assure personnel competency. A WCID also aligns all parties to assure their risk assessment processes will apply during well construction activities and risk assessment. This document provides recommendations for the following topics:

- baseline groundwater sampling;
- source water management;
- material selection;
- transportation of materials and equipment;
- storage and management of fluids and chemicals;
- management of solid and liquid wastes;
- air emissions. Pages: 53

1st Edition | August 2015 | Product Number: G100201 | Price: $98.00

Bull 100-3

Community Engagement Guidelines

These guidelines outline what local communities and other key stakeholders can expect from operators. Oil and gas operators acknowledge the challenges associated with industry activities, which can include challenges important to a community. Principles of integrity, transparency and consideration for community concerns underpin responsible operations. Conscientious operators are committed to helping communities achieve positive and long-lasting benefits. Both local stakeholders and operators can use this guidance. It is designed to acknowledge challenges and impacts that occur during the industry’s presence in a given region. It provides flexible and adaptable strategies, recognizing that application will vary from operator to operator and community to community. Many operators already apply similar guidelines or processes within their operations. These suggested guidelines are typical and reasonable and generally apply under normal operating circumstances. The use of these guidelines is at each individual operator’s discretion.

Operators recognize that stakeholders within the community can have different interests, issues and levels of concern. Some of these interests can be in direct conflict with one another. Working together with stakeholders to seek mutually agreeable solutions is an important aspect of community engagement. Operators can have different approaches to addressing the concerns and issues. These guidelines are intended primarily to support onshore oil and gas projects in the United States for shale developments; however, they can be adapted to any oil and gas projects in the United States.

This document provides non-technical guidance only, and practices included herein cannot be applicable in all regions and/or circumstances. This document does not constitute legal advice regarding compliance with applicable legal and regulatory requirements.

1st Edition | July 2014 | Product Number: G100301 | Price: $66.00

Exploration and Production

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Familiarizes field personnel with basic gas lift principles; operating procedures for adjusting, regulating, operating, and troubleshooting gas-lift equipment; and well conditions. Covers conventional practices and concepts. Illustrated with drawings of typical gas-lift installations and related equipment, as well as actual charts illustrating operation of and problems encountered in gas-lift wells. Pages: 143
Product Number: GVT063 | Price: $170.00

Introduction to Oil and Gas Production  
(Book 1 in the Vocational Training Series)
Serves as a primer for oil and gas operations. It covers the origins and accumulation of oil and gas, the well, well treatment and wellhead, artificial lift, well testing, separation, treatment and storage, gauging and metering, production, offshore production and structures, corrosion, enhanced recovery, production personnel, tools and equipment, pipe, valves and fittings, reports and records, state and federal regulations, environmental, health, and safety concerns, economic considerations, and future trends. Pages: 120
Product Number: GVT015 | Price: $170.00

Subsurface Salt Water Injection and Disposal  
(Book 3 in the Vocational Training Series)
A handbook for the planning, installation, operation, and maintenance of subsurface disposal systems. Design criteria and formulas are given for gathering systems, treating plants, and injection facilities. Alternative equipment and methods are discussed and illustrated. Economic considerations are presented. Pages: 47
Product Number: GVT033 | Price: $105.00

Wireline Operations and Procedures  
(Book 5 in the Vocational Training Series)
A handbook outlining to operators of oil and gas wells what applications are possible with wireline tools and equipment. Also a guide for field personnel. Surface equipment, service tools (standard and special), and subsurface equipment (both permanent and removable) are described and illustrated. Their various applications are included. Also presented is a general discussion of special problems that wireline operations and procedures may serve to eliminate, minimize, or control, and methods by which this may be accomplished. Pages: 60
Product Number: GVT053 | Price: $132.00

RP T-1  
Creating Orientation Programs for Personnel Going Offshore
Serves as a guide to develop orientation materials for personnel and visitors prior to their first trip offshore. The scope and applicability of this document concludes after check-in at the offshore facility and receipt of the facility-specific orientation. Pages: 18
5th Edition | November 2016 | Product Number: GT1005 | Price: $71.00

RP T-2  
Recommended Practice for Qualification Programs for Offshore Production Personnel Who Work with Safety Devices
Provides guidelines for the qualification of personnel engaged in installing, inspecting, testing, and routinely maintaining surface and subsurface devices that are used to insure safety and to prevent pollution during the production of oil and gas on offshore platforms. The guidelines provide expected candidate performance levels, instructional content, and recommendations for testing. The guidelines are divided into instructional and testing phases. Pages: 3
2nd Edition | December 2001 | Reaffirmed: June 2010
Product Number: GT2002 | Price: $65.00

RP T-4  
Training of Offshore Personnel in Nonoperating Emergencies
Represents an industry guide for the training of workers who work offshore. It presents recommendations for training these personnel in handling nonoperating emergencies, such as fires, transportation emergencies, platform abandonment procedures, use of survival crafts, and water survival guidelines. Pages: 3
2nd Edition | October 1995 | Reaffirmed: June 2010
Product Number: GT4002 | Price: $65.00

RP T-6  
Recommended Practice for Training and Qualification of Personnel in Well Control Equipment and Techniques for Wireline Operations on Offshore Locations
Provides criteria for the qualification of wireline personnel in well control equipment and techniques. Although it does include recommendations for training wireline personnel on general rig well control equipment and theory, it should be noted that the main focus for training should be those operations using a lubricator as the primary well control mechanism. Wireline personnel classifications to which this RP is applicable are the Helper/Assistant and Operator/Supervisor. Pages: 2
1st Edition | October 2002 | Reaffirmed: January 2013
Product Number: GT0601 | Price: $65.00

RP T-7  
Training of Personnel in Rescue of Persons in Water
Applies to personnel who work offshore. It represents an industry guide for training personnel in techniques for rescuing persons from the water and using survival devices. It broadly identifies rescue devices, describes their operations, and presents recommendations for training personnel. Training recommendations are designed to develop personnel rescue proficiency while minimizing an individual’s exposure to injury or loss of life. Pages: 8
Product Number: GT7002 | Price: $62.00

RP T-8  
Fundamental Safety Training for Offshore Personnel
Provides guidance on the components of an effective training system related to offshore health, safety, and environment (HSE). A common safety training matrix is provided that outlines the fundamental recommended HSE training for offshore personnel. This matrix can be used in conjunction with other applicable recommended training and company-specific requirements. Pages: 24
COMMUNITY ENGAGEMENT

Community Matters: Community Outreach Guidance Manual for Exploration and Production Facilities

This manual provides a model community outreach program to help oil and natural gas industry E&P facilities improve their ties to their local communities. Community Matters offers a step-by-step guide for implementing a community outreach program and provides information on how to tailor outreach efforts to meet the needs of the facility and local community. Pages: 111

1st Edition | November 2000 | Product Number: G13660 | Price: $89.00

Bull 100-3

Community Engagement Guidelines

These guidelines outline what local communities and other key stakeholders can expect from operators. Oil and gas operators acknowledge the challenges associated with industry activities, which can include challenges important to a community. Principles of integrity, transparency and consideration for community concerns underpin responsible operations. Conscientious operators are committed to helping communities achieve positive and long-lasting benefits.

Both local stakeholders and operators can use this guidance. It is designed to acknowledge challenges and impacts that occur during the industry's presence in a given region. It provides flexible and adaptable strategies, recognizing that application will vary from operator to operator and community to community. Many operators already apply similar guidelines or processes within their operations. These suggested guidelines are typical and reasonable and generally apply under normal operating circumstances. The use of these guidelines is at each individual operator's discretion.

Operators recognize that stakeholders within the community can have different interests, issues and levels of concern. Some of these interests can be in direct conflict with one another. Working together with stakeholders to seek mutually agreeable solutions is an important aspect of community engagement. Operators can have different approaches to addressing the concerns and issues.

These guidelines are intended primarily to support onshore oil and gas projects in the United States for shale developments. However, they can be adapted to any oil and gas projects in the United States. This document provides non-technical guidance only, and practices included herein cannot be applicable in all regions and/or circumstances. This document does not constitute legal advice regarding compliance with legal or contractual requirements or risk mitigation. It is not intended to be all-inclusive. The operator is responsible for determining compliance with applicable legal and regulatory requirements.

1st Edition | July 2014 | Product Number: G100301 | Price: $66.00


HEALTH, ENVIRONMENT, AND SAFETY:
EXPLORATION AND PRODUCTION SAFETY STANDARDS

RP 49

Recommended Practice for Drilling and Well Servicing Operations Involving Hydrogen Sulfide

Provides recommendations that apply to oil and gas well drilling and servicing operations involving hydrogen sulfide. These operations include well drilling, completion, servicing, workover, downhole maintenance, and plug and abandonment procedures conducted with hydrogen sulfide present in the fluids being handled. Coverage of this publication is applicable to operations confined to the original wellbore or original total depth and applies to the selection of materials for installation or use in the well in

the well drilling or servicing operation(s). The presence of hydrogen sulfide in these operations also presents the possibility of exposure to sulfur dioxide from the combustion of hydrogen sulfide. Pages: 29

3rd Edition | May 2001 | Reaffirmed: January 2013
Product Number: G49003 | Price: $96.00

RP 49 *

Recommended Practice for Drilling and Well Servicing Operations Involving Hydrogen Sulfide—Kazakh

Kazakh translation of RP 49.

3rd Edition | May 2001 | Product Number: G4903K | Price: $77.00

RP 49 *

Recommended Practice for Drilling and Well Servicing Operations Involving Hydrogen Sulfide—Russian

Russian translation of RP 49.

3rd Edition | May 2001 | Product Number: G04903R | Price: $77.00

RP 51R

Environmental Protection for Onshore Oil and Gas Production Operations and Leases

Provides environmentally sound practices, including reclamation guidelines, for domestic onshore oil and gas production operations. It is intended to be applicable to contractors as well as operators. Facilities within the scope of this document include all production facilities, including produced water handling facilities. Offshore and arctic areas are beyond the scope of this document. Operational coverage begins with the design and construction of access roads and well locations and includes reclamation, abandonment, and restoration operations. Gas compression for transmission purposes or production operations, such as gas lift, pressure maintenance, or enhanced oil recovery (EOR), is included. Annex A provides guidance for a company to consider as a “good neighbor.” Pages: 35

Product Number: GS1R01 | Price: $82.00

You may download a PDF of this document from https://www.api.org/oil-and-natural-gas/wells-to-consumer/exploration-and-production/hydraulic-fracturing/rp-51r-environmental-protection

RP 54

Occupational Safety and Health for Oil and Gas Well Drilling and Servicing Operations

Recommends practices and procedures for promoting and maintaining safe and healthy working conditions for personnel in drilling and well servicing operations. These recommendations apply to rotary drilling rigs, well servicing rigs, and special services as they relate to operations on location. It is intended that the applicable requirements and recommendations of some sections of the standard be applied, as appropriate, to other sections. The recommendations are not intended to cover seismic drilling or water well drilling operations. These recommendations do not apply to site preparation and site remediation operations. Pages: 62

4th Edition | February 2019 | Product Number: G54004 | Price: $140.00

RP 55

Recommended Practice for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide

Covers recommendations for protection of employees and the public, as well as conducting oil and gas producing and gas processing plant operations where hydrogen sulfide is present in the fluids being produced. Pages: 40

Product Number: GS5002 | Price: $124.00

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**Recommended Practice for Oilfield Explosives Safety**
Applicable to chemical explosives used as an energy source to do work in oil- and gas-producing operations, and more specifically to explosives intended for use inside a wellbore. The purpose of this recommended practice (RP) is primarily to prevent the inadvertent initiation of these explosives at the wellsite but also includes some recommendations for safe and secure storage and transportation and handling, as well as requirements for design and manufacture of selected equipment. While some chemicals intended for various nonexplosive applications can prove explosive when misused (such as lithium batteries), it is not the intent of this RP to address these materials. Pages: 85

**Recommended Practice for Occupational Safety for Onshore Oil and Gas Production Operation**
Provides companies engaged in offshore operations with a framework for the establishment, implementation, and maintenance of a Safety and Environmental Management System (SEMS) to manage and reduce risks associated with safety and the environment to prevent incidents and events. This recommended practice applies, in part or whole, to companies engaged in offshore operations, from lease evaluation through decommissioning. This document is not intended to be prescriptive or limiting on the expectations of each SEMS element; rather, it allows flexibility appropriate to the size, scope, and risk of a Company’s assets and operations. It is advised that users of this document review and comply with applicable legal and regulatory requirements, and conform with applicable industry codes and standards. Consideration may be given to using this document to help systematically manage other aspects of operations, such as security and health. Pages: 34

**Suggested Procedure for Development of a Spill Prevention Control and Countermeasure Plan**
Assists the petroleum industry in understanding the SPCC regulation in light of the latest rule (40 CFR Part 112) and to offer guidance for developing SPCC Plans wherever they are needed. Included is a template for developing SPCC plans (i.e. onshore excluding production; onshore oil production, oil drilling or workover; or offshore oil drilling, production, or workover) in accordance with the regulation and guidance, instruction, and clarification for completing each section of the template. The purpose of this rulemaking was to establish procedures, methods, and equipment to prevent and contain discharges of oil from non-transportation-related onshore and offshore facilities, thus preventing pollution of navigable waters of the United States. The development of this bulletin was commissioned by API and performed by O’Brien’s Response Management Inc. The purchase of D16 includes; Bulletin D16, the Plan Template, and a CD-ROM with the Microsoft® Word version of the Plan Template. Pages: 30
Exploration and Production

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HEALTH, ENVIRONMENT, AND SAFETY: GENERAL

Achieving Common Sense Environmental Regulation: Oil and Gas Exploration & Production
Discusses proposals to achieve a balanced approach to environmental regulation of the oil and gas exploration and production industry that protects the environment as well or better than the current system and does the job more efficiently. Pages: 36
May 1996 | Product Number: G13715 | Price: Free*

Exploration and Production: Protecting the Environment
Discusses work the E&P industry does to protect the environment while exploring for and producing oil and natural gas. Describes a number of innovative and socially responsible actions taken by exploration and production companies to minimize impacts to air, water, land, and wildlife. This document is only available in a PDF format. Pages: 24
September 1997 | Product Number: G13650 | Price: Free*

Bull E1
Generic Hazardous Chemical Category List and Inventory for the Oil and Gas Exploration and Production Industry (Superfund Amendments and Reauthorization Act of 1986, Emergency Planning and Community Right-to-Know Act) (includes Errata 1 dated September 1991)
Under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986, owners and operators of oil and gas exploration and production facilities must provide to state and local emergency response agencies information on hazardous chemicals they produce or use. This bulletin provides a simplified means of compliance with these regulations. Pages: 86
Product Number: G11000 | Price: $154.00

Bull E4
Environmental Guidance Document: Release Reporting for the Oil and Gas Exploration and Production Industry as Required by the Clean Water Act, the Comprehensive Environmental Response, Compensation and Liability Act, and the Emergency Planning and Community
Developed to provide the oil and gas production industry guidance on reporting releases of hazardous substances and petroleum to water as required by the Clean Water Act (CWA) and reporting releases of hazardous substances into the environment as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Emergency Planning and Community Right-to-Know Act (EPCRA). Also covers the reporting of what most in the industry consider "emergency" releases, which are unplanned and typically are not covered under a permit issued by a government agency. Pages: 106
2nd Edition | May 2003 | Product Number: GE4002 | Price: $183.00

RP 1145
Preparation of Response Plans for Oil Spills from Offshore Facilities
Provides information and guidance for the development of Oil Spill Response Plans for the offshore U.S. oil and gas exploration, production, and transportation (pipeline) industry. The general plan concepts, layout, and content recommended in this document are also applicable to other types of coastal/marine assets, both in the U.S. and international locations. This RP is intended to provide plan developers and writers with information and guidance for effective and functional Oil Spill Response Plans that fulfill the expectations of plan holders, responders, regulators, response officials, stakeholders, and the general public. This RP may be informative for any company, organization, or public agency that oversees or responds to oil spills.

Although plans prepared or modified using this RP can be used to replace existing response plans required by regulation, the RP is not intended to be a regulatory compliance guideline or to supersede current regulations. Pages: 140
2nd Edition | February 2018 | Product Number: D11452 | Price: $131.00

Publ 4702
Technologies to Reduce Oil and Grease Content of Well Treatment, Well Completion, and Workover Fluids for Overboard Disposal
Technologies to reduce oil and grease content of well treatment, well completion, and workover fluids for overboard disposal. Pages: 54
March 2001 | Product Number: I47020 | Price: $133.00

HEALTH, ENVIRONMENT, AND SAFETY: NATURALLY OCCURRING RADIOACTIVE MATERIALS

Bull E2
Management of Naturally Occurring Radioactive Materials (NORM) in Oil and Gas Production
Naturally occurring radioactive materials (NORM) are present in oil and gas operations at some locations and can deposit in well tubulars, surface piping, vessels, pumps, and other producing and processing equipment. The purpose of this document is to inform oil and gas operators of the possible presence of NORM and to provide relevant information on protecting workers, the public, and the environment. The objective of this document is to provide general information to users so that they have an understanding of the fundamental radiation issues associated with the management of NORM. Issues where the advice of a professional health physicist, industrial hygienist, or other technical expert may be useful are identified and guidance provided. Readers are advised to contact their state regulatory office and work very closely with that office on all NORM issues. Pages: 50
2nd Edition | March 2006 | Product Number: GE2002 | Price: $133.00

Publ 7100
A Naturally Occurring Radioactive Material (NORM) Disposal Cost Study
Details the reported quantities of NORM that have accumulated over the years and the annual rate of NORM production for 1993 from U.S. oil and gas condensate production. The document also determines the 1992 cost of available NORM disposal options and the annual costs of complying with existing and proposed NORM regulations. Pages: 59
1st Edition | November 1996 | Product Number: G71001 | Price: $124.00

Publ 7101
A National Survey on Naturally Occurring Radioactive Material (NORM) in Petroleum Producing and Gas Processing Facilities
Defines the general occurrence of NORM in the United States based on statistical analysis of gamma measurements taken external to certain petroleum producing and gas processing equipment. Pages: 265
October 1997 | Product Number: G71011 | Price: $124.00

Publ 7102
Methods for Measuring Naturally Occurring Radioactive Materials (NORM) in Petroleum Production Equipment
The use and capabilities of common field-survey equipment are characterized for measuring NORM in sludges and scales accumulated in oil and gas production equipment. A correlation between radium concentrations in accumulated scales and sludges and measured external radiation is presented. Pages: 85
October 1997 | Product Number: G71021 | Price: $124.00
Publ 7103
Management and Disposal Alternatives for Naturally Occurring Radioactive Material (NORM) Wastes in Oil Production and Gas Plant Equipment

Presents radiological analyses of disposal alternatives that will protect against elevated radiation exposures and facilitate cost-effective precautions that are proportionate to any hazards posed by the NORM. Four waste forms and 12 waste disposal alternatives were analyzed. Pages: 65
October 1997 | Product Number: G71031 | Price: $124.00

Publ 7104
Proceedings of the 1995 API and GRI Naturally Occurring Radioactive Material (NORM) Conference

A compilation of 17 papers presented at the 1995 API/GRI NORM Conference. Subjects include measurement and survey; regulatory issues and activities; management and disposal; and scale prediction and control. Pages: 225
October 1997 | Product Number: G71041 | Price: $124.00

Publ 7105
Probabilistic Estimates of Dose and Indoor Radon Concentrations Attributable to Remediated Oilfield Naturally Occurring Radioactive Material (NORM)

Evaluates the concentration limit of 30 pCi/g Ra-226 in pipe scale and sludge left near the surface of remediated oilfield sites and returned to unrestricted public use. Includes an extensive bibliography of NORM research. Pages: 97
October 1997 | Product Number: G71051 | Price: $124.00

HEALTH, ENVIRONMENT, AND SAFETY:
WASTE

Guidelines for Commercial Exploration and Production Waste Management Facilities

Provides guidelines for the design and operations of commercial E&P waste management facilities to allow operators to identify areas where their facility could have impacts on the surrounding community and environment, and gives options for preventing/reducing those impacts. The guidelines are not meant to supersede any applicable local, state, or federal requirements. Pages: 80

Protecting Livestock: Answers to Frequently Asked Questions about Livestock Exposure to Crude Oil in Oilfield Operations

Describes ways livestock might be significantly exposed to petroleum hydrocarbons via a conceptual site model and outlines how to make a screening level determination of whether or not livestock are at risk from the exposure.
2006 | Product Number: IOPL06 | For a free copy, please visit http://www.api.org/~media/Files/EHS/Environmental_Performance/LIVESTOCK_EXPOSURE_BROCHURE_FINAL.pdf

API E5
Environmental Guidance Document: Waste Management in Exploration and Production Operations

Includes recommendations for the environmentally sound management of solid waste resulting from the exploration and production of oil and gas. Guidance is provided for the management of drilling fluids, produced waters, and other wastes associated with the operation of gas plants, field facilities, drilling, and workover. Pages: 84
2nd Edition | February 1997 | Product Number: GE5002 | Price: $136.00