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

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GENERAL: OIL FIELD EQUIPMENT AND MATERIALS

The API Composite List
This is a directory of companies licensed to use the API Monogram and APIQR Registration Mark. This directory also lists the companies who have registered Perforator Designs with API. It provides an alphabetical list of approximately 1,400 manufacturers licensed (at the time of publication) to mark their products with the API Monogram. It also contains a classified listing (by specific API specification) of these licensed manufacturers, as well as over 200 APIQR ISO 9000 registered firms. This directory was developed to assist those individuals desiring to purchase products and services meeting API specifications from companies whose quality systems and capabilities are verified by API’s Quality Programs. It is updated and published quarterly.

A searchable on-line version of the composite list is updated weekly and can be found at https://mycerts.api.org/Search/CompositeSearch.

Free*

Spec Q1 ◆ Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry
(includes Addendum 1 dated June 2016, Addendum 2 dated June 2018, and Errata 3 dated November 2019)
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 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: $131.00

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—Russian
Russian translation of Spec Q1.
9th Edition | June 2013 | Product Number: G0Q109R | Price: $131.00

Spec Q1 *
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 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 regulatory requirements. Pages: 21
Product Number: G0Q201 | Price: $87.00

*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.
Spec Q2 *
Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries—Chinese
(includes Addendum 1 dated June 2016)
Chinese translation of Spec Q2.
1st Edition | December 2011 | Product Number: G0Q201C | Price: $87.00

Spec Q2 *
Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries—Portuguese
(includes Addendum 1 dated June 2016)
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—Spanish
(includes Addendum 1 dated June 2016)
Spanish translation of Spec Q2.
1st Edition | December 2011 | Product Number: G0Q201R | Price: $87.00

RP 1FSC
Facilities Systems Completion Planning and Execution
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 field 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

Std 18LCM ◆
Product Life Cycle Management System Requirements for the Petroleum and Natural Gas Industries
Defines the requirements of a management system for service providers performing lifecycle management of products for organizations in the petroleum and natural gas industry. The document identifies requirements for service providers of lifecycle management and the activities required to perform product lifecycle management including determination of product lifecycle management status, actions required to maintain a status, and development of the lifecycle management plan.
Multiple products used together as part of a system application may be included in the scope of this document, but only as individual products. This document was developed for upstream activities application. This document is intended for pressure-containing and/or pressure-controlling products for wellbore fluids but may also be applied to other equipment that is specified by the product owner or customer. While this document and/or portions thereof could be applicable to other industry segments, it is recommended that other segments carefully review these requirements in order to determine their applicability and, if necessary, to develop an applicable annex identifying any segment-specific requirements.
This document does not include technical requirements for products and does not include requirements for determination of fitness-for-service for a particular product. In addition, this document does not include requirements for original design and manufacture of product. Pages: 14
1st Edition | April 2017 | Product Number: G18LCM1 | Price: $84.00

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

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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

OFFSHORE STRUCTURES

TR 2A-LFS ◆
Load Factor Study for API Recommended Practice 2A-LRFD
Evaluates the suitability of the load factors in API 2A-LRFD, 1st Edition (1993) given the accumulated experience since the 1980s about hurricane hazards and platform performance. Pages: 124
1st Edition | November 2020
Product Number: G2ALFS01 | Price: $120.00

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 2SIM 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: G2AWSDF22 | Price: $428.00

RP 2A-WSD ◆
Planning, Designing, and Constructing Fixed Offshore Platforms—Working Stress Design—Russian
Russian translation of RP 2A-WSD.
22nd Edition | November 2014
Product Number: G2AWSDF22R | 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
Product Number: G02B06 | Price: $90.00

Spec 2B ◆
Specification for the Fabrication of Structural Steel Pipe—Chinese
Chinese translation of Spec 2B.
Product Number: G02B06C | Price: $90.00

Spec 2B ◆
Specification for the Fabrication of Structural Steel Pipe—Russian
Russian translation of Spec 2B.
Product Number: G02B06R | Price: $90.00

Spec 2C ◆
Offshore Pedestal-Mounted Cranes
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: 150
8th Edition | October 2020 | Product Number: G02C08 | Price: $175.00

RP 2D
Operation and Maintenance of Offshore Cranes (includes Errata 1 dated August 2015 and Addendum 1 dated October 2020)
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

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RP 2D-2 ■
Training for Offshore Pedestal-mounted Crane Riggers, Operators, and Inspectors

Enhances the robustness of previous test programs an improved hands-on style of testing that will strengthen competency and understanding of safety protocols. This standard establishes general principles for the training of personnel for safe operations and maintenance of offshore pedestal-mounted cranes, as a companion to API 2D and API 2C. This standard also provides requirements and recommendations for personnel seeking qualification as a crane rigger, operator, or inspector. The revised training requirements in API 2D-2 will help enhance worker safety at offshore sites, with the goal of improving industry safety by reducing the number of drop incidents while boosting productivity and working to eliminate the economic losses that stem from damage. API 2D-2 means all around improvements when it comes to operational safety, maintenance, and sustainability of pedestal-based cranes, improving the overall lifespan of these key pieces of lifting hardware. Pages: 57
1st Edition | October 2020 | Product Number: G02D21 | Price: $90.00

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. COC). 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, dock barges, and storage tankers. Pages: 16
Product Number: G02F06 | Price: $97.00

Spec 2F ◆
Specification for Mooring Chain—Chinese

Chinese translation of Spec 2F.
Product Number: G02F06C | Price: $97.00

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 plans 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 14L, 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

TR 2FC-1 ■
Studlink and Studless Fatigue Curves for Mooring Lines

Summarizes the derivation of fatigue curves for studless and studlink chain mooring lines for inclusion in API 2SK, 3rd Edition. This report of API 2SK has a single fatigue curve for mooring chain; this curve is a non-unique lower bound to all of the in-water and in-air studlink fatigue test data. API 2SK, 2nd Edition does not have separate fatigue curves for studlink and studless chain. The studlink fatigue curve derived in this report is based on the saltwater tension-fatigue tests performed by the National Engineering Laboratory, Glasgow, UK (NEL) and Exxon Production Research Company (EPR) on oil rig quality (ORQ) studlink chain with bar diameters of 2 in., 3 in., and 4 in. The studless fatigue curve is based on the saltwater tension-fatigue tests performed by NEL on R3 and R4 studless chain with a bar diameter of 3 in. Pages: 32
1st Edition | January 2020 | Product Number: G02FC101 | Price: $75.00

TR 2FC-2 ■
Fatigue TN Curves for Chain, Wire, and Polyester Mooring Lines (Including Corrections for High-tension Ranges)

Summarizes the derivation of high-load, range-low cycle corrections to API 2SK, 3rd Edition studlink and studless chain fatigue curves, and in this respect supplements the derivation of standard fatigue curves reported in API 2FC-1, 1st Edition. In addition, low cycle high load range corrections to API 2SK’s independent wire rope core (IWR) and spiral strand (SS) wire rope fatigue curves are proposed, and polyester rope fatigue data is reviewed and compared to the recommendations presently contained in API 2SM, API 2SK, and ISO 19901-7. The proposed corrections to the API TN curves and chain and polyester fatigue test data are provided; where the lower part of the piecewise linear TN curves (in the log-log space) are the same as in API 2SK, while the upper part is the correction, or change, proposed. Pages: 26
1st Edition | January 2020 | Product Number: G02FC201 | Price: $65.00

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 worker, product storage, and export. This document addresses only floating systems where a buoyant hull of some form supports the topside production, and other systems. Bottom-fixed components, such as self-supporting risers, and station keeping systems, such as turret mooring, 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: G02FPS02 | 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 offloading operations. FPSs described in this recommended practice are governed by local regulatory requirements and recognized classification society (RCS) rules (if classed). 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

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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: GG2GEO01 | Price: $167.00

Spec 2H
Specification for Carbon Manganese Steel Plate for Offshore Structures
Covers two grades of intermediate strength steel plates up to 4 in. thick for use in welded construction of offshore structures, in selected critical portions that must resist impact, plastic fatigue loading, and lamellar tearing. These steels are intended for fabrication primarily by cold forming and welding as per Spec 2B. The welding procedure is of fundamental importance and it is presumed that procedures will be suitable for the steels and their intended service. Conversely, the steels should be amenable to fabrication and welding under shipyard and offshore conditions. Pages: 24
9th Edition | July 2006 | Effective Date: February 1, 2007
Reaffirmed: January 2012 | Product Number: G02H09 | Price: $102.00

Bull 2HINS
Guidance for Post-Hurricane Structural Inspection of Offshore Structures
Provides guidance for above- and below-water post-hurricane structural inspections of fixed and floating structures in the Gulf of Mexico. The goal of these special inspections is to determine if a structure sustained hurricane-induced damage that affects the safety of personnel, the primary structural integrity of the asset, or its ability to perform the purpose for which it was intended. This document should be used in conjunction with the applicable API recommended practices for the structure as well as any structure specific owner or regulatory requirements. Pages: 16
1st Edition | May 2009 | Product Number: G2HINS01 | Price: $90.00

RP 2I
In-Service Inspection of Mooring Hardware for Floating Structures
Provides guidelines for inspecting mooring components of mobile offshore drilling units (MODUs) and permanent floating installations. This edition includes:
- inspection guidelines for steel permanent moorings on permanent floating installations are added;
- inspection guidelines for fiber ropes used for permanent and MODU moorings are included;
- special guidance for MODU mooring inspection in the areas of tropical cyclone is provided.
Although this recommended practice was developed for the primary moorings of MODUs and permanent floating installations, some of the guidelines may be applicable to moorings of other floating vessels such as pipe-laying barges and construction vessels. Also some of the guidelines may be applicable to secondary or emergency moorings such as mooring for jack-up units, shuttle tanker mooring, and dynamic positioning (DP) vessel harbor mooring. The applicability of this document to other floating vessels and moorings is left to the discretion of the user. Pages: 73
3rd Edition | April 2008 | Reaffirmed: June 2015
Product Number: G02I03 | Price: $160.00

RP 2MET
Derivation of Metocean Design and Operating Considerations
Provides general requirements for the determination and use of meteorological and oceanographic (metocean) conditions for the design, construction and operation of offshore structures of all types used in the petroleum and natural gas industries.
The requirements are divided into two broad types:
- those that relate to the determination of environmental conditions in general, together with the metocean parameters that are required to adequately describe them;
- those that relate to the characterization and use of metocean parameters for the design, the construction activities or the operation of offshore structures.
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: GG2MET02 | 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 Errata 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: GG2MOP01 | Price: $263.00
This document applies to synthetic fiber ropes used in the form of taut leg and in-service maintenance and inspection criteria for mooring components, rope design and testing, quality assurance, and the design and analysis considerations of mooring systems, 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

1st Edition | August 2013 | Product Number: G2SF01 | Price: $93.00

RP 2SIM
Structural Integrity Management of Fixed Offshore Structures

Serves as a guide for the structural integrity management of fixed offshore structures used for the drilling, development, production, and storage of hydrocarbons in offshore areas. Specific guidance is provided for the evaluation of structural damage, above and below water structural inspection, fitness-for-purpose assessment, risk reduction, and mitigation planning, and the process of decommissioning.

The SIM process provided in this recommended practice is applicable to platforms installed at any location worldwide. However, this recommended practice also provides specific metocean criteria, which are only applicable for use in fitness-for-purpose assessments of platforms located in the U.S. Gulf of Mexico and the U.S. West Coast. Pages: 97

1st Edition | November 2014 | Product Number: G2SIM01 | Price: $184.00

RP 2SK
Design and Analysis of Stationkeeping Systems for Floating Structures

Includes Addendum 1 dated May 2008

Presents 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

Product Number: G2SK03 | Price: $138.00

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, FPSes);
- mobile offshore drilling units (MODUs);
- spar platforms;
- catenary anchor leg mooring (CALM) buoys;
- mobile offshore units. Pages: 108

2nd Edition | July 2014 | Product Number: G2SM02 | Price: $201.00

RP 2T
Planning, Designing and Constructing Tension Leg Platforms

Contains a guide to the designer in organizing an efficient approach to the design of a tension leg platform (TLP). Emphasis is placed on participation of all engineering disciplines during each stage of planning, development, design, construction, installation, and inspection. This publication contains guidelines developed from the latest practices in designing tension leg platforms and are adapted from successful techniques employed for related structural systems in the offshore and marine industries. Pages: 254

3rd Edition | July 2010 | Reaffirmed: June 2015
Product Number: G02T03 | Price: $246.00

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

1st Edition | June 2006 | Product Number: G2TD01 | Price: $56.00

RP 2TOP
Topsides 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

Bull 2U
Bulletin on Stability Design of Cylindrical Shells

Contains semi-empirical formulations for evaluating buckling strength of stiffened and unstiffened cylindrical shells. Pages: 146

3rd Edition | June 2004 | Product Number: G02U03 | Price: $207.00

Bull 2V
Design of Flat Plate Structures

Includes Errata 1 dated March 2008

Provides guidance for the design of steel flat plate structures. Pages: 139

3rd Edition | June 2004 | Product Number: G02V03 | Price: $207.00

Spec 2W
Steel Plates Produced by Thermo-Mechanically Controlled Processing for Offshore Structures

Covers four grades of steel plates that are to be produced by thermomechanically controlled processing (TMCP) for use in welded construction of offshore structures. Pages: 27

6th Edition | January 2019 | Product Number: G02W06 | Price: $105.00
Exploration and Production

Spec 2W *
Steel Plates Produced by Thermo-Mechanically Controlled Processing for Offshore Structures—Russian

Russian translation of Spec 2W.


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. 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

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

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, Spec 2W and 2Y. However, it may be used as a supplement to other material specifications (e.g., Spec 2H) if so desired. Pages: 19

Product Number: G02Z04 | Price: $130.00

RP 2Z *
Recommendation Practice for Preproduction Qualification for Steel Plates for Offshore Structures—Russian

Russian translation of RP 2Z.

Product Number: G02Z04R | Price: $130.00

*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.
Recommended Practice on Thread Compounds for Casing, Tubing, Line Pipe, and Drill Stem Elements

Provides requirements, recommendations, and methods for the testing of thread compounds intended for use on threaded casing, tubing, and line pipe connections and for thread compounds intended for use on rotary shouldered connections. The tests outlined are used to evaluate the critical performance properties and physical and chemical characteristics of thread compounds under laboratory conditions.

This edition of RP 5A3 is the identical national adoption of ISO 13678:2010. Pages: 47

Product Number: GX5A303 | Price: $157.00

Recommended Practice on Thread Compounds for Casing, Tubing, Line Pipe, and Drill Stem Elements—Russian


Product Number: GX5A303R | Price: $157.00

Field Inspection of New Casing, Tubing, and Plain-End Drill Pipe

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; however, 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: GX5A507 | Price: $171.00

Field Inspection of New Casing, Tubing, and Plain-End Drill Pipe—Chinese


Product Number: GX5A507C | Price: $171.00

Field Inspection of New Casing, Tubing, and Plain-End Drill Pipe—Russian


Product Number: GX5A507R | Price: $171.00

Threading, Gauging, and Inspection of Casing, Tubing, and Line Pipe Threads

Covers dimensions, tolerances, and marking requirements for API threads and the gauges that control the acceptance criteria for the threads. Thread element gauges, instruments, and requirements for the inspection of threads for line pipe, round thread casing, round thread tubing, and buttress casing connections are included. Pages: 116

16th Edition | December 2017 | Product Number: G5B016 | Price: $163.00

Threading, Gauging, and Inspection of Casing, Tubing, and Line Pipe Threads—Russian

Russian translation of Spec 5B.

Russian 16th Edition | December 2017 | Product Number: G5B016R | Price: $163.00

Gauging and Inspection of Casing, Tubing and Line Pipe Threads

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

Gauging and Inspection of Casing, Tubing and Line Pipe Threads—Kazakh

Kazakh translation of RP 5B1.

Product Number: G05B15K | Price: $154.00

Gauging and Inspection of Casing, Tubing, and Pipe Line Pipe Threads

Covers threading, gauging, gauging practice, and inspection of threads for casing, tubing, and line pipe made under Specs 5B1. Pages: 31

Product Number: G05B15R | Price: $154.00

Recommended Practice for Care and Use of Casing and Tubing

Covers use, transportation, storage, handling, and reconditioning of casing and tubing. Pages: 31

18th Edition | May 1999 | Reaffirmed: July 2020
Product Number: G05C18 | Price: $124.00

Recommended Practice for Care and Use of Casing and Tubing—Chinese

Chinese translation of RP 5C1.

Chinese 18th Edition | May 1999 | Reaffirmed: July 2020
Product Number: G05C18C | Price: $124.00

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3rd Edition | May 2018 | Product Number: G05C63 | Price: $103.00

Russian translation of RP 5C6.

Pipe with Welded Connectors—Russian

This publication is related to an API licensing, certification, or accreditation program.


Recommended Practice for Testing Casing and Tubing Connections—Russian

Casing and Tubing Connections. The words “casing” and “tubing” apply to the service 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 wellbore deviation), and temperature variations. Pages: 197


RP 5C5

Procedures for Testing Casing and Tubing Connections—Russian

This publication is related to an API licensing, certification, or accreditation program.

Providing a guide 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 the 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: G05C63 | Price: $103.00

RP 5C6

Pipe with Welded Connectors

Pipe with Welded Connectors—Russian

Russian translation of RP 5C6.

This publication is related to an API licensing, certification, or accreditation program.

Pipe with Welded Connectors

Exploration and Production
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: 133

2nd Edition | May 2020 | Product Number: G5DP02 | Price: $216.00

Spec 5DP *
Drill Pipe—Russian
(includes Errata 1 dated July 2020)

This publication is related to an API licensing, certification, or accreditation program.

Rent 216.00

Spec 5L *
Line Pipe—Russian
(includes Errata 1 dated May 2018)

Russian translation of Spec 5L.

46th Edition | April 2018 | Product Number: G05L46R | Price: $298.00

RP 5L1
Recommended Practice for Railroad Transportation of Line Pipe
Applies to the transportation on railcars of Spec 5L steel line pipe in sizes 29/8 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 5L3
Drop-Weight Tear Tests on Line Pipe
Covers the qualification of inspection personnel, a description of inspection guidelines and 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 lines, 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: G5L304 | Price: $103.00

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—Kazakh
Kazakh translation of RP 5L8.

Product Number: G05L82K | Price: $136.00

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metal outside and CRA layer inside the pipe. The base material shall be composed of a base steel pipe with improved corrosion-resistant properties. The clad and lined processes of manufacturer, chemical and physical requirements, and methods of testing. Pages: 110

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: 42

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: 38

Conforms 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

Reaffirmed: July 2020 | Product Number: G5LD04 | Price: $157.00

CRA Clad or Lined Steel Pipe—Russian

Spec 5LD *

CRA Clad or Lined Steel Pipe—Russian
(includes Errata 1 dated October 2015)

Russian translation of Spec 5LD.

4th Edition | March 2015 | Reaffirmed: July 2020
Product Number: G5L82R | Price: $136.00

Covers both inland and marine waterways except in cases where the specific requirement of a paragraph references only marine or only inland-waterway transport. Pages: 5

Product Number: G5L03R | Price: $65.00

Recommended Practice for Transportation of Line Pipe—Barges and Marine Vessels

RP 5LW *

Recommended Practice for Transportation of Line Pipe on Barges and Marine Vessels—Russian

Designed to protect pipe coating from damage. Pages: 6

2nd Edition | October 2006 | Reaffirmed: July 2020
Product Number: G5LT01 | Price: $65.00

Recommended Practice for Truck Transportation of Line Pipe—Chinese

RP 5LT *

Recommended Practice for Truck Transportation of Line Pipe—Chinese
(includes Errata 1 dated June 2017)

Russian translation of Spec 5LC.

4th Edition | March 2015 | Reaffirmed: July 2020
Product Number: G5LC04 | Price: $189.00

Spec 5LC *

CRA Line Pipe—Russian
(includes Errata 1 dated October 2015)

Russian translation of Spec 5LC.

4th Edition | March 2015 | Reaffirmed: July 2020
Product Number: G5LC04R | Price: $189.00

Spec 5LCP *

Specification on Coiled Line Pipe
(includes Errata 1 dated July 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

2nd Edition | October 2006 | Effective Date: April 18, 2007
Reaffirmed: July 2020 | Product Number: G5LC02 | Price: $158.00

Spec 5LCP *

Specification on Coiled Line Pipe—Chinese
(includes Errata 1 dated July 2007)

Chinese translation of Spec 5LCP.

2nd Edition | October 2006 | Reaffirmed: July 2020
Product Number: G5LC02C | Price: $158.00

Spec 5LCP *

Specification on Coiled Line Pipe—Russian
(includes Errata 1 dated July 2007)

Russian translation of Spec 5LCP.

2nd Edition | October 2006 | Reaffirmed: July 2020
Product Number: G5LC02R | Price: $158.00

Spec 5LD *

CRA Clad or Lined Steel Pipe
(includes Errata 1 dated June 2017)

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

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**Spec SST**

*Specification for Coiled Tubing—U.S. Customary and SI Units*

Covers the manufacturing, inspection, and testing of all carbon and low alloy steel coiled tubing in Grades C70, C80, C90, C100, and C110, 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

1st Edition | April 2010 | Reaffirmed: July 2020
Product Number: G5ST01 | Price: $145.00

**Spec SST**

*Specification for Coiled Tubing—U.S. Customary and SI Units—Chinese*

Chinese translation of Spec SST.

1st Edition | April 2010 | Reaffirmed: July 2020
Product Number: G5ST01C | Price: $145.00

**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: $138.00

**TR 5TP**

*Torque-Position Assembly Guidelines for API Casing and Tubing Connections—Russian*

Russian translation of TR 5TP:

1st Edition | December 2013 | Product Number: G5TP01R | Price: $124.00

**RP 5UE**

*Recommended Practice for Ultrasonic Evaluation of Pipe Imperfections (includes Addendum 1 dated April 2009)*

Russian translation of RP 5UE.

2nd Edition | June 2005 | Reaffirmed: July 2020
Product Number: G5UE02R | Price: $86.00

**Spec 6A**

*Specification for Wellhead and Tree Equipment (includes Errata 1 dated April 2019, Errata 2 dated June 2020, Addendum 1 dated July 2020, and Errata 3 dated September 2020)*

Specifies requirements for the performance, dimensional and functional interchangeability, design, materials, testing, inspection, welding, marking, handling, storing, shipment, purchasing, repair, and remanufacture of wellhead and tree equipment for use in the petroleum and natural gas industries. This document does not apply to field use, field testing, or field repair of wellhead and Christmas tree equipment.

This document is applicable to the following specific equipment: wellhead equipment (integral, blind, and test flanges; ring gaskets; threaded connectors; tees and crosses; bullplugs; valve-removal plugs; standard and nonstandard top connectors; crossover connectors; other end connectors; adapter spoons and spacer spoons; gate, plug, and ball valves; actuated valves [manual and remote]; check valves [swing- and lift-type]; back-pressure valves; slip-type and mandrel-type casing and tubing hangers, casing and tubing heads [housings and adapters]; chokes [fixed, manually

1st Edition | December 2013 | Product Number: G5TP01 | Price: $124.00

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 actuated, remotely actuated); actuators [for valves and chokes]; surface safety valve (SSV) assemblies, valves prepared for actuators, and actuators; underwater safety valve (USV) assemblies, valves prepared for actuators, and actuators; boarding shutdown valve (BSDV) assemblies, valves prepared for actuators, and actuators; and tree assemblies).

This document defines service conditions in terms of pressure, temperature, and material class for the well-bore constituents, and operating conditions. This international standard establishes requirements for four product specification levels (PSL). These four PSL designations define different levels of technical quality requirements. Pages: 414

21st Edition | November 2018 | Effective Date: November 1, 2019
Product Number: G606A21 | Price: $310.00

Spec 6A *
Specification for Wellhead and Tree Equipment—Russian
(includes Errata 1 dated April 2019, Errata 2 dated June 2020, Addendum 1 dated July 2020, and Errata 3 dated September 2020)

Russian translation of Spec 6A.
21st Edition | November 2018
Product Number: G606A21R | Price: $310.00

Std 6ACRA
Age-Hardened Nickel-Based Alloys for Oil and Gas Drilling and Production Equipment

Provides requirements for age-hardened nickel-base alloys that are intended to supplement the existing requirements of Spec 6A. For downhole applications, refer to Spec 5CRA.

This additional requirements include detailed process control requirements and detailed testing requirements. The purpose of these additional requirements is to ensure that the age-hardened nickel-base alloys used in the manufacture of Spec 6A pressure-containing and pressure-controlling components are not embrittled by the presence of an excessive level of deleterious phases and meet the minimum metallurgical quality requirements.

This standard is intended to apply to pressure-containing and pressure-controlling components as defined in Spec 6A. Requirements of this standard may be applied by voluntary conformance by a manufacturer, controlling components as defined in Spec 6A. Requirements of this standard may be applied by voluntary conformance by a manufacturer, and to the temperature difference load case. The leakage criterion is defined as the pressure 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 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
(includes Errata 1 dated March 2017)

Russian translation of TR 6AF.
3rd Edition | September 2008 | Product Number: G6AF03R | Price: $163.00

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 66-21) that resulted in the publication of Bull 6AF. Inclined 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: G66AF1 | 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 reductions 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


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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.
TR 6AF3 ●
High-pressure High-temperature (HPHT) Flange Design Methodology
Provides design guidelines for API 6BX style flanges utilized as end and outlet connectors in high-pressure, high-temperature (HPHT) surface and subsea applications. For this document, HPHT applications are intended to mean flanges assigned a temperature rating greater than 350 °F or a pressure rating greater than 15,000 psi. This document does not address thermal effects including gradient effects or subsea production equipment. Service temperature ratings above 550 °F (288 °C) are outside the scope of this technical report. The flange designer should address thermal effects when designing flanges rated for high temperatures. Pages: 34
1st Edition | August 2020 | Product Number: G6AF301 | Price: $86.00

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 (RSL) 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 failure 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 limits specified in the document. Pages: 32
3rd Edition | July 2018 | Product Number: G6AV103 | Price: $105.00

Std 6AV2 ●
Installation, Maintenance, and Repair of Safety Valves (SSV, USV, and BSDV)
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 offsite repair, testing procedures with acceptance criteria, failure reporting, and documentation. Power and control systems for SSV/USVs are not included.

Spec 6D ●
Specification for Pipeline and Piping Valves
Provides guidelines for the repair and remanufacture of steel 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.

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 | Reaffirmed: January 2020 | Product Number: G06DR2 | Price: $84.00

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

Russian translation of Spec RP 6DR.  
2nd Edition | May 2012 | Reaffirmed: January 2020  
Product Number: G6DPR2R | Price: $84.00

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.

Valves covered by this specification include one of the following pressure classes: Class 150, Class 300, Class 600, Class 900, Class 1500, or Class 2500. This specification is not applicable to valves for pressure ratings exceeding Class 2500. Pages: 130  
3rd Edition | August 2017 | Product Number: G6DSS3R | Price: $179.00

Std 6DX ■  
Standard for Actuators and Mounting Kits for 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. Pages: 44  
2nd Edition | February 2020 | Product Number: G6DX02 | Price: $156.00

TR 6F1  

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. Pages: 29  
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. Pages: 19  
3rd Edition | April 1999 | Product Number: G06F23 | Price: $118.00

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

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Yield strength reduction ratios at temperatures of 300 °F, 350 °F, 400 °F, and 450 °F are reported. Testing resulted in yield strength reduction 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 2nd Edition | August 2000 | Product Number: G06J11 | Price: $86.00

TR 6RT  ■
Guidelines for Design and Manufacture of Surface Wellhead Running, Retrieving and Testing Tools, Clean-out Tools and Wear Bushings

Provides guidance for the design, materials selection, manufacture, and testing of tools and equipment for running, retrieving, clean-out, and testing of wellhead components and wear bushings. The equipment manufactured, in accordance with this technical report is designed to satisfy the manufacturer's documented performance characteristics and the applicable service conditions. This technical report is derived from requirements previously found in API 6A, 20th Edition and earlier editions. Pages: 22

1st Edition | February 2020 | Product Number: G06RT1 | Price: $65.00

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

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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


Spec 7-2

Threading and Gauging of Rotary Shouldered Connections—Russian
(includes Errata 1 dated August 2017, Errata 2 dated November 2019, and Addendum 1 dated March 2020)

Russian translation of Spec 7-2.


TR 7CR

Cold Working Thread Roots with CNC Lathes for Rotary Shouldered Connections

Describes procedures for cold root rolling the thread roots on API 7-2 thread sizes using CNC Lathes (CW/CNC). Cold working can be applied by a couple methods: (1) cold rolling under pressure with a roller shaped like the thread form, or (2) shot peening. Both methods achieve acceptable results, but machine thread root rolling is more controllable. Pages: 49

1st Edition | January 2020 | Product Number: G7CR01 | Price: $75.00

Std 7CW

Casing Wear Tests

Provides a method by which results will be reproducible, under a specified set of conditions, for conducting tests that determine casing wear due to rotation of drill stem elements.

This standard is intended to be used in a laboratory environment and is not intended for use in the field during operations. The testing requirements in this standard are not represented at well conditions. This standard is divided into four major areas: machine apparatus, procedures, materials, and reporting.

This standard will not address the significance of specific data values. It is the responsibility of the user of this standard to establish the appropriate test data values that are acceptable based on their respective application, operational limitations, and safety practices. Pages: 18

1st Edition | June 2015 | Reaffirmed: July 2020
Product Number: G7CW01 | Price: $93.00

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: G7F008 | Price: $125.00

Spec 7F *

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

Chinese translation of Spec 7F.

Product Number: G7F008C | Price: $125.00

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

RP 7G *

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

Kazakh translation of RP 7G.

Product Number: G07G6AK | Price: $210.00

RP 7G *

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

Russian translation of RP 7G.

Product Number: G07G6AR | Price: $210.00

RP 7G-2

Inspection and Classification of Used Drill Stem Elements

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. Pages: 227

2nd Edition | October 2020 | Product Number: G7G202 | Price: $167.00

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18
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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

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;
- snub-lines for manual and power tongs;
- rotary slips, both manual and powered;
- slip bowls; and
- spiders, both manual and powered. Pages: 130

6th Edition | December 2015 | Product Number: G07K06 | Price: $217.00

Spec 7K ♦
Drilling and Well Servicing Equipment—Russian
(includes Errata 1 dated May 2016, Errata 2 dated August 2016, and Errata 3 dated October 2017)

Russian translation of Spec 7K.
6th Edition | December 2015
Product Number: G07K06R | Price: $217.00

RP 7L
Procedures for Inspection, Maintenance, Repair, and Remanufacture of Drilling Equipment
(includes Addendum 1 dated February 2006 and Addendum 2 dated March 2006)

Provides owners and users of drilling equipment with guidelines for inspection, maintenance, repair, and remanufacture procedures that may be utilized to maintain serviceability of the drilling equipment. Covers the following drilling equipment:
- rotary tables;
- rotary bushings;
- rotary slips;
- rotary hoses;
- slush pump connectors;
- drawworks components;
- spiders not used as elevators; manual tongs; and
- safety clamps not used as hoisting devices. Pages: 26

Reaffirmed: August 2012 | 2-Year Extension: July 2016
Product Number: G07L01 | Price: $118.00

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

1st Edition | July 2006 | Reaffirmed: July 2020
Product Number: G7NRV01 | Price: $76.00

Spec 7NRV ♦
Specification for Drill String Non-Return Valves—Chinese
(includes Addendum 1 dated December 2019)

Chinese translation of Spec 7NRV.
1st Edition | July 2006 | Reaffirmed: July 2020
Product Number: G7NRV01C | Price: $76.00

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;
- tubing hooks and sucker-rod hooks;
- elevator links;
- casing elevators, tubing elevators, drill-pipe elevators, and drill-collar elevators;
- sucker-rod elevators;
- rotary swivel-bail adapters;
- rotary swivels;
- power swivels;

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RP 10B-2
Recommended Practice for Testing Well Cements
(species Errata 1 dated June 2006 and Errata 2 dated January 2007)
Provides procedures for testing of cement slurries and related materials under simulated well conditions.

RP 10B-3
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. The procedures contained in this document serve as guidance for the testing of cement slurries used in deepwater well construction.

RP 10B-4
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.

RP 10B-5/ISO 10426-5:2004
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.

RP 10B-6/ISO 10426-6:2008
Recommended Practice on Determining the Static Gel Strength of Cement Formulations
Provides methods for testing well cement slurries and cement blends for use in a deepwater environment or wells drilled in areas with a low seafloor temperature. This document does not address test ing at pressures above atmospheric conditions.

Spec 10D/ISO 10427-1:2001
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/ISO 10427-2:2004
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.

Spec 10D/ISO 10427-1:2001
Specification for Bow-Spring Casing Centralizers—Chinese

Spec 10D/ISO 10427-2:2004
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.

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**Spec 10F**  
Cementing Float Equipment Testing  
(includes Errata 1 dated May 2020 and Errata 2 dated May 2020)  
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  
(includes Errata 1 dated May 2020 and Errata 2 dated May 2020)  
Russian translation of Spec 10F.  

**RP 10G**  
Product Evaluation, Application, and Testing of Stage Cementing Collars  
Provides requirements, guidelines, and recommended practices for stage cementing collars used in cementing applications in the petroleum and natural gas industry. Information is included on the types, application, specification, validation, manufacturing, job planning, and execution, and preventing and diagnosing problems. Use of stage cementing collars for non-cementing applications or annulus casing packers, or both, are outside the scope of this document. Products covered under another API or international specification are not included. This document does not cover the connections to the well conduit. Pages: 61  
1st Edition | May 2008 | Product Number: G10G01 | Price: $140.00

**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  

**TR 10TR1**  
Cement Sheath Evaluation—Kazakh  
Kazakh translation of TR 10TR1.  

**TR 10TR1**  
Cement Sheath Evaluation—Russian  
Russian translation of TR 10TR1.  

**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  

**TR 10TR2**  
Shrinkage and Expansion in Oilwell Cements—Russian  
Russian translation of TR 10TR2.  

**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  

**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: $67.00

**TR 10TR4**  
Selection of Centralizers for Primary Cementing Operations—Russian  
Russian translation of TR 10TR4.  
1st Edition | May 2008 | Product Number: G10TR40R | Price: $67.00

**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: $67.00

**TR 10TR5**  
Methods for Testing of Solid and Rigid Centralizers—Russian  
Russian translation of TR 10TR5.  
1st Edition | May 2008 | Product Number: G10TR50R | Price: $67.00

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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,
- formation of a temporary pressure barrier. Pages: 46

TR 10TR7
Mechanical Behavior of Cement
Provides the necessary cement property data for use in cement sheath integrity simulations. The compressive strength tests and nondestructive sonic determination of compressive strength of cement defined in API 10B-2 do not provide suitable data for cement sheath integrity simulations. The methods of API 10B-2 provide information on the strength of cement to ensure that the cement is suitable for general well construction applications and to determine when sufficient strength is developed to allow well operations to continue. Pages: 63
1st Edition | December 2017 | Product Number: G10TR71 | Price: $128.00

RP 65-1
Cementing Shallow-Water Flow Zones in Deepwater Wells
Describes methods designed to prevent shallow-water flow (SWF) during and following cementing of wells located in deep water. It is the compilation of technology and practices developed and used by many operators around the world. 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
2nd Edition | December 2010 | Reaffirmed: November 2016 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

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.
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

Spec 11B ◆
Specification for Sucker Rods, Polished Rods and Liners, Couplings, Sinker Bars, Polished Rod Clamps, Stuffing Boxes, and Pumping Tees (includes Errata 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, sinker 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. 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 system, and Annex K shows examples of sucker rod discontinuities. This specification does not cover sucker rod guides, sucker rod rotators, shear tools, on-off tools, stabilizer bars, sealing elements used in stuffing boxes, or interface connections for stuffing boxes and pumping tees. Also, installation, operation, and maintenance of these products are not included in this specification. Pages: 91

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**Bull 1113**
Sucker Rod Pumping System Design Book
(includes Errata 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 1116**
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: G11L602C | Price: $94.00

**Spec 11PL**
Plunger Lift Lubricators and Related Equipment
Provides requirements and guidelines for plunger lift lubricators, which includes plunger catchers as defined herein for use in the petroleum and natural gas industry. Threaded and flanged external connections are covered by the applicable API or proprietary connection design requirements. This specification provides requirements for the functional specification and technical specification, including design requirements (outlet locations, specified and optional), design extensions, design verification and validation, welding, materials, quality controls, marking, documentation and data control, shipment, and storage. Pages: 72
1st Edition | June 2019 | Effective Date: June 2020
Product Number: G11PL01 | Price: $121.00

**11S**
Recommended Practice for the Operation, Maintenance and Troubleshooting of Electric Submersible Pump Installations
Covers all of the major components that comprise a standard electric submersible pumping system, their operation, maintenance, and troubleshooting. It is specifically prepared for installations in oil and water producing wells where the equipment is installed on tubing. It is not prepared for equipment selection or application. Pages: 18
Product Number: G11S03 | Price: $90.00

**RP 11S1**
Recommended Practice for Electrical Submersible Pump Teardown Report
Covers a recommended electrical submersible pump teardown report form. It also includes equipment schematic drawings that may provide assistance in identifying equipment components. These schematics are for generic equipment components, and there may be differences between manufacturers on the exact description or configuration of the assemblies. Pages: 36
Reaffirmed: September 2020 | Product Number: G11S13 | Price: $133.00

**RP 11S2**
Recommended Practice for Electric Submersible Pump Testing
Provides guidelines and procedures covering electric submersible pump performance testing intended to establish product consistency. These practices are generally considered appropriate for the majority of pump applications. This document covers the acceptance testing of electric submersible pumps (sold as new) by manufacturers, vendors, or users to the prescribed minimum specifications. Pages: 12
2nd Edition | August 1997 | Effective Date: October 1, 1997
Reaffirmed: October 2013 | Product Number: G11S22 | Price: $90.00

**RP 11S2 *  Recommended Practice for Electric Submersible Pump Testing—Russian**
Russian translation of RP 11S2.
Product Number: G11S22R | Price: $90.00

**RP 11S3**
Recommended Practice for Electrical Submersible Pump Installations
Addresses the installation and replacement of all major components comprising an electrical submersible pumping system. Specifically, it addresses equipment installation on tubing in oil and gas production operations. Pages: 11
Product Number: G11S32 | Price: $97.00

**RP 11S3 * Recommended Practice for Electrical Submersible Pump Installations—Russian**
Russian translation of RP 11S3.
Product Number: G11S32R | Price: $97.00

**RP 11S4**
Recommended Practice for Sizing and Selection of Electric Submersible Pump Installations
Discusses in some detail each component of the ESP system (pump, motor, intake, seal or protector, cable, switchboard, etc.) as far as what must be considered for the best selection at a desired rate and well conditions. Examples are given to illustrate the basic design procedure and illustrate how PVT correlations, multiphase flow correlations, and inflow performance relationships are used. Summary designs and computer examples using the detailed design principles are presented that show how design considerations fit together and how tools such as computer programs allow faster solutions resulting in easier trial and error calculations for optimization of designs and study of existing installations. Topics such as PVT correlations, multiphase flow correlations, and inflow performance relationships are discussed in the appendices. Pages: 31
Product Number: G11S43 | Price: $86.00

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**RP 11S5**
Recommended Practice for the Application of Electrical Submersible Cable Systems
Covers the application (size and configuration) of electrical submersible cable systems by manufacturers, vendors, or users. The document addresses the various uses of different cable insulation systems, including jackets, braids, armor, and related coverings, as well as auxiliary cable components for cable conductors. The document also addresses splicing and terminating cables including splicing, lengthening, and repairs. Pages: 38
Product Number: G11S52 | Price: $118.00

**RP 11S6**
Recommended Practice for Testing of Electric Submersible Pump Cable Systems
Covers field testing of electric submersible pump cable systems. This document is organized into three major topic categories. The first category provides general definitions and an overview of terms, safety considerations, and cable system preparation guidelines. The second category identifies various situations under which testing is performed. The third category identifies test methods and procedures. Pages: 18
Product Number: G11S61 | Price: $97.00

**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: G05S947 | 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 with internal pressures approximating atmospheric pressure. 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. Pages: 30
8th Edition | October 2008 | Effective Date: April 1, 2009
Product Number: G12B08 | Price: $105.00

**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. 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: 35
13th Edition | January 2019 | Effective Date: July 1, 2019
Product Number: G12F13 | Price: $146.00

**Spec 12J**
Specification for Oil and Gas Separators
Covers minimum requirements for the design, fabrication, and plant 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 flow line 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: $105.00

**Spec 12J**
Specification for Oil and Gas Separators—Russian
Russian translation of Spec 12J.
8th Edition | October 2008 | Product Number: G12J08R | Price: $105.00

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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 coils, the shell, heater bath, firetube, and the firing system. For purposes of this specification, the termination of a heater coil is at the first bevel when coils are furnished beveled for welding, or the face of the first fitting when fittings are furnished at 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: 35

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 ◆
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 jurisdiction of this specification terminates with each pressure vessel as applicable: the emulsion treater with firetube(s) and, if used, the heat exchanger(s) and water siphon. Pressure vessels covered by this specification are classified as natural resource vessels. An emulsion treater is a pressure vessel used in the oil producing industry for separating oil-water emulsions and gas and for breaking or resolving emulsified well streams into water and saleable clean oil components. Emulsion treaters are usually equipped with one or more removable firetubes or heat exchange elements through which heat is applied to the water and/or emulsion to aid the emulsion breaking process. Pages: 39

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. Pages: 6

Product Number: G12N02 | Price: $90.00

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. Pages: 27

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

Std 12R1
Installation, Operation, Maintenance, Inspection, and Repair of Tanks in Production Service
For use as a guide for new tank installations and maintenance of existing tanks, Std 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. This recommended practice is 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. Pages: 53


DRILLING, COMPLETION, AND FRACTURING FLUIDS

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 polyanionic cellulose (PAC-LV); high-viscosity polyanionic cellulose (PAC-HV); and drilling-grade xanthan 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. Pages: 120

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

RP 13B-1
Recommended Practice for Field Testing Water-Based Drilling Fluids
(includes Errata 1 dated May 2020)
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.

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Annexes 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
(includes Errata 1 dated August 2014, Errata 2 dated March 2018, and Addendum 1 dated August 2019)

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.

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). Pages: 141

5th Edition | April 2014 | Product Number: G13B205 | Price: $222.00

**RP 13C**
Recommended Practice on Drilling Fluid Processing Systems Evaluation

Specifies a standard procedure for assessing and modifying the performance of solids control equipment systems commonly used in the field in petroleum and natural gas drilling fluids processing. The procedure described in this standard is not intended for the comparison of similar types of individual pieces of equipment. Pages: 60

5th Edition | October 2014 | Product Number: G13C05 | Price: $146.00

**RP 13D**
Rheology and Hydraulics of Oil-Well Drilling Fluids

Provides a basic understanding of and guidance about drilling fluid rheology and hydraulics, and their application to drilling operations. For this recommended practice, rheology is the study of flow characteristics of a drilling fluid and how these characteristics affect movement of the fluid. Specific measurements are made on a fluid to determine rheological parameters under a variety of conditions. From this information the circulating system can be designed or evaluated regarding how it will accomplish certain desired objectives. Pages: 98

7th Edition | September 2017 | Product Number: G13D07 | Price: $167.00

**RP 13I**
Laboratory Testing of Drilling Fluids

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. Pages: 50

9th Edition | December 2020 | Product Number: GX13I9 | Price: $288.00

**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 of or amount of particulate matter carried in the brines, the crystallization point or the temperature (both ambient and under pressure) at which the brines will 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

5th Edition | October 2014 | Product Number: G13J05 | Price: $141.00

**RP 13K**
Recommended Practice for Chemical Analysis of Barite

Barite is used to increase the density of oil well drilling fluids. It is a mined product that can contain significant quantities of minerals other than its main component, barium sulfate. It is the objective of this publication to provide a comprehensive, detailed description of the chemical analytical procedures for quantitatively determining the mineral and chemical constituents of barite. These procedures are quite elaborate and will normally be carried out in a well-equipped laboratory. Pages: 51

Product Number: G13K03 | Price: $116.00

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RP 13K *
Recommended Practice for Chemical Analysis of Barite—Kazakh
Kazakh translation of RP 13K.
Product Number: G13K03K | Price: $116.00

RP 13K *
Recommended Practice for Chemical Analysis of Barite—Russian
Russian translation of RP 13K.
Product Number: G13K03R | Price: $116.00

RP 13L
Training and Qualification of Drilling Fluid Technologists
Seeks to formalize the specific knowledge base, professional skills, and application skills needed to ensure the competency and professionalism of individuals working in the drilling fluids industry. Drilling fluid technologists should use this recommended practice (RP) as an outline to self-determine any gaps in learning and seek to improve their skills. A company contracting the service of a drilling fluid technologist should use this RP as a checklist of knowledge that a technologist should be able to demonstrate proficiency in applying. Pages: 36
2nd Edition | November 2017 | Product Number: G13L02 | Price: $94.00

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: GX13M01
Price: $107.00

RP 13M/ISO 13503-1:2003 *
Recommended Practice for the Measurement of Viscous Properties of Completion Fluids—Russian
(RP 13M replaces RP 39)
1st Edition | July 2004 | Product Number: GX13M01R | Price: $107.00

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

RP 13M-6/ISO 13503-6:2012
Procedure for Measuring Leakoff of Completion Fluids Under Dynamic Conditions
Provides consistent methodology for measuring the fluid loss of completion fluids under dynamic conditions. This standard is applicable to all completion fluids except those that react with porous media. This edition of RP 13M-6 is the modified national adoption of ISO 13503-6:2012. Pages: 23
1st Edition | May 2020 | Product Number: G13M601 | Price: $110.00

TR 13TR1
Stress Corrosion Cracking of Corrosion Resistant Alloys in Halide Brines Exposed to Acidic Production Gas
Evaluates the stress corrosion cracking (SCC) risks of a range of corrosion resistant alloys (CRAs) in various halide brine compositions for the case of exposure to acidic production gas (CO₂+H₂S). Also evaluated are SCC risks due to air exposure. However, the testing became focused on a group of martensitic stainless steels alloyed with Ni and Mo, which are collectively referred to as modified 13Cr martensitic stainless steel (SS) or alternatively in some publications as super (S13Cr) martensitic SSs. Most tests evaluated the as-received brine, excluding proprietary additives such as corrosion inhibitor or oxygen scavengers. For completeness and comparison, test results provided by member companies in the API program or in the publications are cited; these test protocols may be different from those in the API test protocols hence, where that occurs, significant differences are noted. Pages: 39

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). 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: G13TR31 | Price: $103.00

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

RP 14E

Recommended Practice for Design and Installation of Offshore Production Platform Piping Systems—Chinese

Chinese translation of RP 14E.

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

Recommended 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.

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

Recommended 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.

Notes:
- Spec 14A provides requirements for SSSV equipment design, qualification, and repair.
- This document includes control systems, control lines, SSSVs, and secondary tools as defined herein. SSSV types including surface controlled (SCSSV), sub-surface controlled (SCSV), 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 does not specify when a SSSV is required.
- The document does not apply to design, qualification, or repair activities for SSSVs. This document does not specify when a SSSV is required.
- Pages: 37

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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 14J
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: G14J02 | 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 installations 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 carbon 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 described in this document can easily be extended to apply to products being developed by manufacturers for application outside this range. Pages: 13

1st Edition | September 2007 | Reaffirmed: October 2018
Product Number: G15CLT1 | Price: $90.00

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 linings applied shall be made also from thermosetting resins. Fiberglass line pipe for use in high-pressure systems are covered in Spec 15HR. 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 2016 | Effective Date: August 1, 2016
Product Number: G15HR4 | Price: $119.00

Spec 15HR ◆
High-Pressure Fiberglass Line Pipe—Russian (includes Errata 1 dated August 2016)

Russian translation of Spec 15HR.


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 reliner applications for the oil and gas producing industries. The technical content of this document provides requirements and guidelines for performance, design, materials inspection, dimensions and tolerances, marking, handling, storing, and shipping. Pages: 38

4th Edition | January 2008 | Effective Date: July 1, 2008
Reaffirmed: October 2018 | Product Number: G15LE4 | Price: $110.00

Spec 15LE ◆
Specification for Polyethylene Line Pipe (PE)—Chinese

Chinese translation of Spec 15LE.

Product Number: G15LE4C | Price: $110.00

Spec 15LR ◆
Specification for Low Pressure Fiberglass Line Pipe (includes Errata 1 dated June 2018)

Covers filament wound (FW) and centrifugally cast (CC) fiberglass line pipe and fittings for pipe in diameters up to and including 24 in. in diameter and up to and including 1000 psig cyclic operating pressures. In addition, at the manufacturer’s option, the pipe may also be rated for static operating pressures up to 1000 psig. It is recommended that the pipe and fittings be purchased by cyclic pressure rating. The standard pressure ratings range from 150 psig to 300 psig in 50 psig increments, and from 300 psig to 1000 psig in 100 psig increments, based on either cyclic pressure or static pressure. Pages: 25

7th Edition | August 2001 | Effective Date: February 1, 2002
Reaffirmed: October 2018 | Product Number: G15LR7 | Price: $105.00

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◆ This publication is a new entry in this catalog.
**Exploration and Production**

**Spec 15LR ***
Specification for Low Pressure Fiberglass Line Pipe—Chinese
(includes Errata 1 dated June 2018)

Chinese translation of Spec 15LR.
7th Edition | August 2001 | Reaffirmed: October 2018
Product Number: G15LR7C | Price: $105.00

**Spec 15PX**
Specification for Crosslinked Polyethylene (PEX) Line Pipe

Covers PEX line pipe utilized for the production and transportation of oil, gas, 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 gases, 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
(includes Errata 1 dated July 2016 and Addendum 1 dated October 2019)

Russian translation of Spec 15S.
2nd Edition | March 2016 | Product Number: G15S02R | Price: $143.00

**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

**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 publication is a new entry in this catalog.

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**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. Technical content provides the minimum requirements for performance, design, materials, welding, testing, inspection, storing, and shipping.

Pages: 114
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 sequenced 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 tensioning rings, telescopic joints, 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
(includes Errata 1 dated February 2019)
Russian translation of Spec 16F.
2nd Edition | November 2017 | Product Number: G16F02R | Price: $150.00

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: $132.00

Spec 18RCD ◆
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: G18RCD02 | 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 11W;
- 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. Pages: 75
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

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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 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: G590002 | Price: $133.00

RP 59 *
Recommended Practice for Well Control Operations—Kazakh
Kazakh translation of RP 59.
2nd Edition | May 2006 | Reaffirmed: December 2018
Product Number: G59002K | Price: $133.00

RP 59 *
Recommended Practice for Well Control Operations—Russian
Russian translation of RP 59.
2nd Edition | May 2006 | Reaffirmed: December 2018
Product Number: G59002R | Price: $133.00

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) or 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: GX17A05 | Price: $108.00

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 171 and 17K, which specify minimum requirements for the design, material selection, manufacture, testing, marking, and packaging of bonded 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
2nd Edition | May 2011 | Reaffirmed: November 2018
Product Number: GX17D02C | Price: $202.00

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Spec 17D/ISO 13628-4 *
Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment—Russian
2nd Edition | May 2011 | Reaffirmed: November 2018
Product Number: GX17D02R | Price: $202.00

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
(includes Addendum 1 dated December 2017)
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 open water 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 17TRB. 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. 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: 290

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

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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 pipes, 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 bent stiffeners and bend restrainers 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 pipe 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 clause dedicated to that item of ancillary equipment. This document applies to 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. The exception is the riser and tether bases and load-transfer devices. The 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 | Reafﬁrmed: August 2020
Product Number: G17L101 | 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; I/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 bases and load-transfer devices. Therefore, this document does not cover turret structures or I-tubes and J-tubes, for example. In addition, it does not cover ﬂexible pipe storage devices, for example reels. This recommended practice 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 in the future. Pages: 275

1st Edition | March 2013 | Reafﬁrmed: August 2020
Product Number: G17L201 | Price: $184.00

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, documents, 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
This document covers subsea flowline connectors and jumpers used for pressure containment in both subsea production of oil and gas, and subsea injection services. Equipment within the scope of this document are listed below.

Equipment used to make the following subsea connections are included:

- pipeline end terminations to manifolds,
- pipeline end terminations to trees,
- pipeline end terminations to riser bases,
- manifolds to trees,
- pipeline inline sleds to other subsea structures.

The following connection components and systems are included:

- jumper assemblies,
- monobore connectors systems,
- multibore connectors systems,
- pressure and flooding caps,
- connector actuation tools.

**RP 17S**

**Recommended Practice for the Design, Testing, and Operation of Subsea Multiphase Flow Meters**

Provides recommendations for the sizing, specification, system integration, and testing of subsea flow meters [referred to as multiphase flow meters (MPFMs)] for measurement of full stream, multiphase flow. In subsea applications, MPFMs are normally used in well testing, allocation measurement, fiscal measurement, well maintenance, and ongoing verification required during operation. This document includes wet gas flow meters as a subset of MPFMs. In-line MPFMs are typically used in subsea applications and are the focus of this document. These recommendations and guidelines are intended for use by the engineer responsible for the delivery of the MPFM.

**1st Edition | June 2015 | Product Number: G17S01 | Price: $93.00**

**RP 17S * Recommended Practice for the Design, Testing, and Operation of Subsea Multiphase Flow Meters—Russian**

Russian translation of RP 17S.

**1st Edition | June 2015 | Product Number: G17S01R | Price: $93.00**

**TR 17TR1 Evaluation Standard for Internal Pressure Sheath Polymers for High Temperature Flexible Pipes**

Defines the methodology and test procedures necessary for the evaluation of polymeric materials suitable for use as the internal pressure sheath of an unbonded flexible pipes in high temperature applications. It describes the processes by which the critical material properties, both static and dynamic, can be measured and evaluated against relevant performance criteria.

This document relates primarily to the properties necessary for an internal pressure sheath required for oil and gas production. These are most relevant to high temperature applications. Only thermoplastic materials are considered for the internal pressure sheath. Elastomeric materials, which are used in bonded flexible pipes, are not considered in this document.

**1st Edition | March 2003 | Product Number: G17TR11 | Price: $143.00**
In contrast, U.S. regulations (30 CFR 250.517) require that all annuli be monitored for sustained casing pressure and that every occurrence of sustained casing pressure be reported immediately. The study concludes that the risks of a system without penetrations is approximately 2.5 times that of a wellhead system with one penetration, and 6.5 times that of a wellhead system with two penetrations. Pages: 31

1st Edition | June 2003 | Product Number: G17TR21 | Price: $110.00

TR 17TR3
An Evaluation of the Risks and Benefits of Penetrations in Subsea Wellheads Below the BOP Stack
Provides an evaluation of the risks and benefits of allowing penetrations in subsea wellheads below the blowout preventer (BOP) stack so annuli other than the production tubing (commonly referred to as the “A” annulus) could be monitored. Current industry standards (Spec 17D and ISO 13628-4) for the design of subsea wellheads prohibit penetrations below the (BOP) stack. In contrast, U.S. regulations (30 CFR 250.517) require that all annuli be monitored for sustained casing pressure and that every occurrence of sustained casing pressure be reported immediately. The study concludes that the risks outweigh the benefits since the risk of maintaining the pressure barrier using a wellhead with penetrations is approximately 2.5 times that of a system without penetrations.

The scope of this study is limited to completed subsea wells in the Gulf of Mexico (GOM). The risks were evaluated using fault tree analysis for three systems:

• wellhead system without penetrations,
• wellhead system with one penetration, and
• wellhead system with two penetrations.

Pages: 123

1st Edition | November 2004 | Product Number: G17TR31 | Price: $143.00

TR 17TR4
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 17TR4 *
Subsea Equipment Pressure Ratings—Russian
Russian translation of TR 17TR4.

2nd Edition | May 2016 | Product Number: G17TR402R | 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

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
tease 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, UTAs
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
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 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.
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 wall 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 assess consequences of external pressure (or in some
instances 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 topside 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 | Reaffirmed: July 2020
Product Number: G17U01 | Price: $81.00

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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 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. 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 | Reaffirmed: June 2020
Product Number: G17V01 | Price: $152.00

RP 17V *
Recommended Practice for Analysis, Design, Installation, and Testing of Safety Systems for Subsea Applications—Russian
(includes Errata 1 dated July 2015)

Russian translation of RP 17V.
1st Edition | February 2015 | Product Number: G17V01R | Price: $152.00

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

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Optics. This international standard does not cover the connections to the well conduit. Pages: 140

Reaffirmed: July 2020 | Product Number: G16A12 | Price: $244.00

Spec 14L
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. Pages: 59
3rd Edition | June 2020 | Product Number: G16L03 | Price: $143.00

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, non-pressure-containing, load-bearing, disconnect/reconnect, tubing-movement, and opening-a-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

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than 103.43 MPa (15,000 psi) and/or greater than 177 °C (350 °F)
as high-pressure and/or high-temperature (HPHT) equipment rated greater
This specification addresses standard side-pocket mandrel designs, as well
pocket mandrels.

natural gas industry. It covers specifying, selecting, designing,
flow-control devices) intended for use in
Provides requirements for subsurface flow-control devices used in side-
pocket mandrels (hereafter called flow-control devices) intended for use in
This edition of RP 19D is the identical national adoption of ISO 15303-
Product Number: GX19D01 | Price: $116.00

RP 19D/ISO 13503-5:2006 *
Measuring the Long-Term Conductivity of Proppants—Russian
(includes Errata 1 dated July 2008)
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 side-pocket mandrels.
This specification addresses standard side-pocket mandrel designs, as well
as high-pressure and/or high-temperature (HPHT) equipment rated greater
than 103.43 MPa (15,000 psi) and/or greater than 177 °C (350 °F)
wellbore conditions as proffered by API 1PER15K-1. Pages: 62
2nd Edition | February 2019 | Product Number: G19G12 | Price: $113.00

Spec 1962 ●
Flow-Control Devices for Side-Pocket Mandrels
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. Pages: 116
2nd Edition | September 2020
Product Number: GX19G22 | Price: $185.00
feasible alternatives to produce dual wells, they should be considered. However, many dually completed oil wells should be artificially lifted—initially, or after reservoir pressures have declined and/or water cuts have increased. In many cases, the only practical method of artificial lift for these wells is gas-lift. Therefore, every effort should be made to design and operate dual gas-lift systems as effectively as possible.

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.

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.

**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.

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.

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

**RP 19G11**
**Dynamic Simulation of Gas-Lift Wells and Systems**

Provides guidance and background for the application and use of dynamic simulation of gas-lift wells and their related systems. Discussion is included for use of steady-state, pseudo-steady-state, and dynamic numerical models. Also presented are guidelines to facilitate the application of these techniques to optimize well/system integrity, operations, life cycle design, and production. Additionally, a range of artificial lift and natural flowing systems and topics (e.g. gas well liquid loading) are addressed.The dynamic simulation recommendations (e.g. stable flow, hydrates, waxes, corrosion, liquid loading, and complex wells) can be implemented in other production systems (e.g. natural flowing wells). Not included are technical requirements for the hardware of the dynamic simulation system, the specifics of the system calculations, the responses to the output of the dynamic simulation data output, and specifics of what actions are required after the provided data is considered. Pages: 132

1st Edition | October 2018 | Product Number: G19G101 | Price: $164.00

**RP 19GLHB**
**Gas Lift Handbook**

Presents information on the following topics related to gas lift equipment: the basic principles of gas lift; gas lift equipment selection; how various types of gas lift equipment work; and how a gas lift system should be designed. Information is also included on monitoring, adjusting, regulating, and troubleshooting gas lift equipment. It is intended to familiarize operating personnel with the use of gas lift as an artificial lift system.

1st Edition | June 2020 | Product Number: G19GLHB01 | Price: $167.00

**Spec 19ICD**
**Inflow Control Devices**

Provides requirements and guidelines for inflow control devices (ICDs) for both production and injection, 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, and quality requirements. Products covered by any other API specification, such as sand screens and sliding sleeves, are not included. Also not included are externally controlled downhole devices including interval control valves (ICVs). This specification does not cover the connections to the well conduit, the effects of corrosion, or ICDs designated for use in thermal recovery applications. Installation, application, and operation of these products are outside the scope of this specification.

1st Edition | May 2020 | Product Number: G19IC001 | Price: $100.00

**Spec 19OH**
**Openhole Isolation Equipment**

Covers requirements and guidelines for openhole isolation equipment and bridge plugs as defined herein. Openhole isolation equipment includes swellable packers, inflatable packers, expandable packers, and openhole packers that are designed for use in the petroleum and natural gas industries. This specification provides requirements for design verification, design validation, manufacturing, quality, shipping, handling, storage, and related supporting topics.

Requirements for the end connections to the well conduit are not included in this specification. Also not covered are downhole anchoring devices (see API 11D1); cup-style packers; and requirements for the application, installation, and use of openhole isolation equipment. Equipment and technology covered by other API specifications and standards are exempted from this specification, such as:

- production packers,
- liner hanger systems,
- service tools,
- test tool packers.

Repairs, remanufacturing, and redress are excluded from this specification.

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

**Spec 19OH**
**Openhole Isolation Equipment—Russian**

Russian translation of Spec 19OH.

1st Edition | January 2018 | Product Number: G19OH1R | Price: $118.00

**Spec 19S5/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, design validation, manufacturing, quality, storage, and transport. 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.
This specification applies to castings used in the manufacture of pressure
equipment (including Addendum 1 dated September 2018 and Addendum 2 dated Spec 20C

Closed Die Forgings for Use in the Petroleum and Natural Gas Industry

Specifies requirements 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. 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. Pages: 35

2nd Edition | November 2020 | Product Number: G20B02 | Price: $102.00

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

• 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 19T

 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, design validation, manufacturing, functional evaluation, quality handling, storage, and service centers. Tools utilized in downhole well test operations include tester valves, circulating valves, well testing packers, safety joints, well testing safety valves, testing surface safety valves (TSSVs), slip joints, jars, work string tester valves, sampler carriers, gauge carriers, drain valves, related equipment, and tool end connections. This specification does not cover open hole well test tools, downhole gauges, samplers, surface equipment, subsea safety equipment, perforating equipment and accessories, pup joints external to well test tool assemblies, work string and its connections, conveyance or intervention systems, installation, control and monitoring conduits, and surface control systems. A downhole well test is an operation deploying a temporary completion in a well to safely acquire dynamic rates, formation pressure/temperature, and formation fluid data. Downhole well test tools are also used in operations of well perforating, well shut-ins, circulation control of fluids, and stimulation activities. This document covers the downhole tools used to perform these operations; however, the operational requirements of performing these operations are not included. Pages: 94

1st Edition | October 2016 | Product Number: G19TT01 | Price: $143.00

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 (SCIVs) and related equipment as they are defined herein for use in the petroleum and natural gas industries. Included are the requirements for design, design validation grades, quality levels, manufacturing, functional evaluation, repair, redress, handling, and storage. SCIVs provide a means of isolating the formation or creating a blockage in the tubular to facilitate the performance of pre- and/or post-production/injection operational activities in the well.

Additional requirements for HPHT products are included in Annex I. Pages: 81
2nd Edition | May 2019 | Effective Date: November 2019
Product Number: G19V02 | Price: $185.00

SUPPLY CHAIN MANAGEMENT

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 and Addendum 2 dated April 2020)

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. Pages: 39

2nd Edition | August 2017 | Product Number: G20A02 | Price: $94.00
Exploration and Production

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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 the bolting specification levels (BSLs). These 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.

2nd Edition | February 2017 | Product Number: G20E02 | Price: $93.00

Spec 20F ◆
Corrosion-Resistant Bolting for Use in the Petroleum and Natural Gas Industries
(includes Errata 1 dated November 2020)

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 20G ◆
Welding Services for Equipment Used in the Petroleum and Natural Gas Industry

Specifies requirements for the qualification of suppliers of welding services used in the manufacturer of equipment for the petroleum and natural gas industry. The requirements of this standard apply to welding operations performed in a welding facility or in the field. Included are pressure-containing, pressure-controlling, overlay, and structural welds. Pages: 37

1st Edition | January 2020 | Product Number: G20G01 | Price: $86.00

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: 26

2nd Edition | April 2020 | Product Number: G20H02 | Price: $78.00

Std 20J
Qualification of Distributors of Metallic Materials for Use in the Petroleum and Natural Gas Industries
(includes Addendum 1 dated January 2020)

 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. Compliance with this standard is applicable only to 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 three 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

Std 20N
Heat Treatment Services—Continuous Line for Equipment Used in the Petroleum and Natural Gas Industry

Specifies requirements for the qualification of suppliers of continuous line 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 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

TR 21TR1
Materials Selection for Bolting
(includes Addendum 1 dated April 2020 and Addendum 2 dated June 2020)

Provides guidance for the selection of materials and manufacturing processes for low-alloy steel bolting manufactured in accordance with API 20F and nickel-based and stainless alloys manufactured in accordance with 20F. 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

DRILLING AND PRODUCTION OPERATIONS

RP 31A
Standard Form for Hardcover 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


RP 45
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 mud 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: 60


RP 50
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

2nd Edition | December 1995 | Reaffirmed: January 2013 | Product Number: GS0002 | Price: $118.00

RP 51
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


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

1st Edition | July 2009 | Reaffirmed: December 2015 | 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 52
Land Drilling Practices for Protection of the Environment

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


RP 68
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


RP 90
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 2017 | Product Number: G92M01 | Price: $107.00

Bull 92L
Drilling Ahead Safely with Lost Circulation in the Gulf of Mexico
Identifies items that should be considered to safely address lost circulation challenges when the equivalent circulating density (ECD) exceeds the fracture gradient. It addresses drilling margins and drilling ahead with mud losses, which are not addressed in Std 65-2. It provides guidance when lost circulation is experienced with either surface or subsea stack operations (excluding diverter operations). These practices may apply to other Outer Continental Shelf (OCS) environments such as offshore California and Florida.
Lost circulation during drilling operations, in the form of both seepage and fracture losses, is a common occurrence in the Gulf of Mexico and other OCS environments. Through extensive practical experience, operators and drilling contractors have learned that with proper information, planning, and execution, lost circulation can be safely managed to allow well construction goals to be met. The methods used to repair or manage lost circulation are based on well location, geology, pore and fracture pressures, drilling depth, well design, hydraulics, mud properties, and available contingencies. Pages: 14
1st Edition | August 2015 | Product Number: G92L01 | Price: $76.00

RP 92M
Managed Pressure Drilling Operations with Surface Back-Pressure
Provides information for planning, installation, testing, and operation of wells drilled with surface backpressure managed pressure drilling (MPD). This document applies only to drilling with surface blowout preventers (BOPs). This document considers situations where the total drilling operation is performed balanced or overbalanced, including both hydrostatically overbalanced (no supplemental surface pressure needed to control inflow) and hydrostatically underbalanced (supplemental surface pressure needed to control inflow) systems. For underbalanced operations, refer to API 92U. This document does not cover MPD operations with subsea BOP stacks. Pages: 33
1st Edition | September 2017 | Product Number: G92M01 | Price: $107.00

RP 92P
Managed Pressure Drilling Operations—Pressurized Mud Cap Drilling with a Subsea Blowout Preventer
Addresses recommended practices for pressurized mud cap drilling (PMCD) from a floating rig with a subsea BOP stack. When massive lost circulation conditions are encountered, PMCD can be implemented to allow well construction operations to continue.
Although this document only addresses PMCD, most of the equipment described may also be used for the surface back-pressure (SBP) method of managed pressure drilling. However, much of the equipment used for SBP is not required for PMCD and is beyond the scope of this document. Pages: 67
1st Edition | June 2019 | Product Number: G92P01 | Price: $117.00
WPIC that links the drilling contractor's safety case with the lease operator's safety management system. It includes well-specific information risk assessment. This document exhibits how management of change and lease operator's personnel as well as provide a vehicle for the drilling activities. A WPIC will assign or delineate specific responsibilities for the all applicable regulatory requirements are met while undertaking shared health, safety, and environment (HSE) standards are not compromised and risk assessment processes will apply during well construction activities and assure personnel competency. A WPIC also aligns all parties to assure their health, safety, and environment (HSE) standards are not compromised and all applicable regulatory requirements are met while undertaking shared activities. A WPIC will assign or delineate specific responsibilities for the lease operator's personnel as well as provide a vehicle for the drilling contractor to intervene in the case that unsafe acts are identified. Pages: 18

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 WPIC also aligns all parties to assure their health, safety, and environment (HSE) standards are not compromised and all applicable regulatory requirements are met while undertaking shared activities. A WPIC will assign or delineate specific responsibilities for the lease operator's personnel as well as provide a vehicle for the drilling contractor to intervene in the case that unsafe acts are identified. Pages: 18

1st Edition | December 2013 | Product Number: G09701 | Price: $71.00

RP 97L
Onshore Well Construction Interface Document
Provides guidance on information that is to be shared regarding onshore well construction and rig-specific operating guidelines. It is intended to align the lease operator's and drilling contractor's safety and environmental management systems (SEMS). The purpose of the well construction interface document (WCID) is to enhance the health and safety of the workers and protect the environment by facilitating communication between the lease operator and drilling contractor regarding well construction work (drilling, suspension, completion, testing, and abandonment). Pages: 24

1st Edition | December 2020 | Product Number: G97L01 | Price: $75.00

RP 98
Personal Protective Equipment Selection for Oil Spill Responders
 Provides general information and guidance for the development of oil spill responder Personal Protective Equipment (PPE) control measures. Although an extensive amount of information has been developed on the topic of PPE for emergency responders, this document focuses on the PPE selection process as well as its technical evaluation based on the hazards present. The purpose of this recommended practice is to assist users in developing effective PPE control measures for oil spill responses using a systematic approach. This recommended practice is intended for any company, organization, or agency that oversees or responds to oil spills. It is not a comprehensive “how-to” guide to selecting PPE for every type of situation that may be encountered; rather, it is a guidance document that discusses how proper PPE selection may be a useful control measure for responders when engineering and administrative controls may not be feasible or effective in reducing exposure to acceptable levels. Pages: 79

1st Edition | August 2013 | Product Number: G09801 | Price: $141.00

RP 99
Flash Fire Risk Assessment for the Upstream Oil and Gas Industry
Provides guidance for the upstream oil and gas industry on hazard identification and risk assessment exercises to assess and mitigate the risk of human injury caused by exposure to a flash fire. The scope of this document is limited to personnel exposed to the risk of hydrocarbon based flash fires in the upstream Exploration and Production (E&P) sector of the oil and gas industry. In general, this group includes oil and gas production, drilling, well bore (well servicing) operations, and gas processing prior to interstate pipeline transportation. Pages: 30

1st Edition | April 2014 | Product Number: G09901 | Price: $87.00

RP 100-1
Hydraulic Fracturing—Well Integrity and Fracture Containment
Contains recommended practices for onshore well construction and fracture stimulation design and execution as it relates to well integrity and fracture containment. These practices cover the design and installation of well equipment that protects and isolates ground water aquifers, delivery and execution of the hydraulic fracture treatment and contains and isolates the produced fluids. This document also addresses the design and execution of hydraulic fracturing treatments to contain the resulting fracture within a prescribed geologic interval. Fracture containment combines those parameters that are existing, those that can be established at installation, and those that can be controlled during execution. Pages: 29

1st Edition | October 2015 | Reaffirmed: August 2020
Product Number: G100101 | Price: $98.00

RP 100-2
Managing Environmental Aspects Associated with Exploration and Production Operations Including Hydraulic Fracturing
Provides recommended practices applicable to the planning and operation of wells, and hydraulically fractured wells. Topics covered include recommendations for managing environmental aspects during planning; site selection; logistics; mobilization, rig-up, and demobilization; and stimulation operations. Also, this document includes guidance for managing environmental aspects during well construction; however, guidance for well construction and fracture stimulation design and execution for onshore wells that can be hydraulically fractured are described in RP 100-1. 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 | Reaffirmed: August 2020
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 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.

**DRILLING AND PRODUCTION OPERATIONS: TRAINING**

**Gas Lift**
*(Book 6 in the Vocational Training Series)*

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-lifted wells. Pages: 143

**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

**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

**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. Surf ace 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

**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

**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

**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

**RP T-5 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 operations 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

**RP T-6 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 developed to design personnel rescue proficiency while minimizing an individual’s exposure to injury or loss of life. Pages: 8
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


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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: G55002 | Price: $124.00

RP 67
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

3rd Edition | October 2019 | Product Number: G06703 | Price: $121.00

RP 74
Recommended Practice for Occupational Safety for Onshore Oil and Gas Production Operation

Recommends practices and procedures for promoting and maintaining safe working conditions for personnel engaged in onshore oil and gas production operations, including special services. Pages: 23

1st Edition | October 2001 | Reaffirmed: January 2013
Product Number: G74001 | Price: $67.00

RP 75
Safety and Environmental Management System for Offshore Operations and Assets

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


Bull 75L
Guidance Document for the Development of a Safety and Environmental Management System for Onshore Oil and Natural Gas Production Operations and Associated Activities

Provides general information and guidance for the development of a safety and environmental management system (SEMS) for onshore oil and natural gas operations, including drilling, production, and well servicing activities. Although there is an extensive amount of information that has been developed on the topic of safety and environmental management systems, this document focuses on this industry sector to help foster continuous improvement in our industry's safety and environmental performance. It is recognized that many onshore oil and natural gas companies have effective SEMS in place; however, the intent of this document is to provide an additional tool that can assist these and especially other operators in taking the next step toward implementing a complete system at a pace that complements their business plan. For those who already have a mature SEMS in place, this document can be used for continuous improvement of the system. Pages: 12

1st Edition | November 2007 | Product Number: G75L01 | Price: $37.00

RP 76
Contractor Safety Management for Oil and Gas Drilling and Production Operations

Intended to assist operators, contractors, and subcontractors (third parties) in the implementation of a contractor safety program and improve the overall safety performance while preserving the independent contractor relationship. It is intended for the Upstream Segment of the petroleum industry; however, since the operator requirements and the contractual work and events, this publication may not be applicable to all operations at each company or to all contract work performed in those operations. Many oil and gas exploration and production companies contract for equipment and personnel services for a wide range of activities, including drilling production, well servicing, equipment repair, maintenance, and construction. Certain activities of contractors have the potential to take place either contractor and/or operator personnel and/or equipment at risk. It is important that operations are carried out in a safe manner. Operators and contractors need to provide safe work places and to protect the safety of their work places and to protect the safety of their workforces and the general public. When they work together to improve safety, both benefit. Pages: 60

2nd Edition | November 2007 | Reaffirmed: January 2013
Product Number: G07602 | Price: $62.00

RP 77
Risk-Based Approach for Managing Hydrocarbon Vapor Exposure During Tank Gauging, Sampling, and Maintenance of Onshore Production Facilities

Covers recommended risk assessment and risk management practices to reduce the potential for acute worker hydrocarbon exposures and related atmospheric risks (i.e. potential oxygen deficiency). Specifically, this recommended practice is limited to onshore production tanks (including flowback tanks) during gauging and sampling, open-top tank sampling, and select tank maintenance activities involving removal or opening of tank appurtenances. While the tools and practices recommended in this document can be useful in other operations, this recommended practice does not specifically apply to downstream, refining, or offshore tank applications. Pages: 30

1st Edition | June 2018 | Product Number: G07701 | Price: $93.00
**Bull D16**  
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.  
5th Edition | April 2011 | Product Number: GD1605  
Price: $279.00 | Template Only: Price: $103.00  

**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...
<table>
<thead>
<tr>
<th>Publication Id</th>
<th>Title</th>
<th>ISBN</th>
<th>Description</th>
<th>Pages</th>
<th>Date</th>
<th>Product Number</th>
<th>Price</th>
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<tbody>
<tr>
<td>Publ 7101</td>
<td>A National Survey on Naturally Occurring Radioactive Material (NORM) in Petroleum Producing and Gas Processing Facilities</td>
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<td>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.</td>
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<td>Publ 7102</td>
<td>Methods for Measuring Naturally Occurring Radioactive Materials (NORM) in Petroleum Production Equipment</td>
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<td>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.</td>
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<td>Publ 7103</td>
<td>Management and Disposal Alternatives for Naturally Occurring Radioactive Material (NORM) Wastes in Oil Production and Gas Plant Equipment</td>
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<td>Proceedings of the 1995 API and GRI Naturally Occurring Radioactive Material (NORM) Conference</td>
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<td>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.</td>
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<td>Guidelines for Commercial Exploration and Production Waste Management Facilities</td>
<td></td>
<td>Provides guidelines for the design and operations of commercial E&amp;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.</td>
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