Standards and guidelines for well construction and well operations

Introduction

This reference list includes standards and other documents, produced both by IOGP and other organizations, which address well construction and well operations. It also lists new standards and documents in development. Please note there are other such standards and documents, but those listed below are, at the time of publication of this report, thought to be the primary ones.

Engineering design, systems and equipment related documents:

- API 17TR8 High-Pressure High-Temperature Design Guidelines
- API RP 5C7 Coiled Tubing Operations in Oil and Gas Well Services
- API RP 7G Drill Stem Design and Operation Limits
- API RP 7G-2 Inspection and Classification of Used Drill Stem Elements
- API RP 17B Flexible pipe
- API RP 17H Remotely Operated Vehicle Interfaces on Subsea Production Systems
- API RP 17L2 Flexible Pipe Ancillary Equipment
- API RP 17W Subsea Capping Stacks
- API RP 49 Drilling and Well Servicing Operations Involving Hydrogen Sulfide
- API RP 64 Diverter Systems Equipment and Operations
- API RP 65 Cementing Shallow Water Flow Zones in Deep Water Wells
- API RP 92U Underbalanced Drilling Operations
- API RP 96 Deepwater Well Design and Construction
- API Spec 5C1 Care and Use of Casing and Tubing
- API Spec 5CT Casing and Tubing
- API Spec 5ST Coiled Tubing—U.S. Customary and SI Units
- API Spec 7NRV Drill String Non-return valves
- API Spec 10B-2 Testing Well cements
- API Spec 16C Choke and Kill Systems
- API Spec 16D Control Systems for Drilling Well Control Equipment and Diverter Equipment
- API Spec 16F Marine Drilling Riser Equipment
- API Spec 16RCD Drill Through Equipment – Rotating Control Devices
- API Spec 17F Subsea Production Control Systems
- API Spec 17L1 Flexible Pipe Ancillary Equipment
Standards and guidelines for wells

- API Spec 17N Subsea Production System Reliability and Technical Risk Management
- API Std 53 BOP Equipment Systems for Drilling Wells
- API Std 65-2 Isolating Potential Flow Zones During Well Construction
- API TR 6AF Capabilities of API Flanges Under Combinations of Load
- DNV-RP-C203 Fatigue design of offshore steel structures
- DNV-OS-E101 Drilling Plant
- EI Guidelines for the analysis of jackup and fixed platform well conductor systems
- EI Guidelines for routine and non-routine subsea operations from floating (drilling) vessels
- EI Model code of safe practice Part 17 Volume 1: High pressure and high temperature well planning
- EI Model code of safe practice Part 17 Volume 2: Well control during the drilling and testing of high pressure, high temperature offshore wells
- EI Model code of safe practice Part 17 Volume 3: High pressure and high temperature well completions
- IEC 61892-7 Mobile and fixed offshore units. Electrical installations – Part 7: Hazardous areas
- IMO MODU [Mobile Offshore Drilling Units] Code
- ISO/TR 10400/API TR 5C3 Equations and calculations for the properties of casing, tubing, drill pipe and line pipe used as casing or tubing
- ISO 10405 Care and use of casing and tubing
- ISO 10417/API RP 14B Subsurface safety valve systems
- ISO 10418 Analysis, design, installation and testing of basic surface process safety systems
- ISO 10423/API Spec 6A Wellhead and christmas tree equipment
- ISO 10424-1/ANSI/API Spec 7-1 Rotary drill stem elements
- ISO 10424-2/ANSI/API Spec 7-2 Threading and gauging of rotary shouldered thread connections
- ISO 10426-1/API Spec 10A Cements and materials for well cementing
- ISO 10426-2 Testing of well cements
- ISO 10426-3/API Spec 10B-3 Testing of deepwater well cement formulations
- ISO 10426-4/API Spec 10B-4 Preparation and testing of foamed cement slurries at atmospheric pressure
- ISO 10426-5/API Spec 10B-5 Determination of shrinkage and expansion of well cement formulations at atmospheric pressure
- ISO 10426-6/API Spec 10B-6 Methods for determining the static gel strength of cement formulations
- ISO 10427-3/API RP 10F Performance testing of cementing float equipment
- ISO 10432/API Spec 14A Subsurface safety valve equipment
- ISO 11960 Steel pipes for use as casing or tubing for wells
- ISO 11961/API Spec 5DP Steel drill pipe
- ISO/TR 13881 Classification and conformity assessment of products, processes and services
- ISO 13354 Shallow gas diverter equipment
- ISO 13533/API Spec 16A Drill-through equipment [BOPs]
- ISO 13624-1/API RP 160 Design and operation of marine drilling riser equipment
- ISO 13625/API Spec 16R Marine drilling riser couplings
- ISO 13628-1/API RP 17A Design and operation of subsea production systems
- ISO 13628-2 Unbonded flexible pipe systems for subsea and marine applications
- ISO 13628-4/API Spec 17D Subsea wellhead and tree equipment
- ISO 13628-5/API Spec 17E Subsea umbilicals
- ISO 13628-6 Subsea production control systems
- ISO 13628-7-API RP 17G Completion/workover riser systems
- ISO 13628-8 Remotely Operated Vehicle [ROV] interfaces on subsea production systems
- ISO 13628-11 Flexible pipe systems for subsea and marine applications
- ISO 13679/API RP 5C5 Procedures for testing casing and tubing connections
- ISO 13680/API Spec 5CRA Corrosion-resistant alloy (CRA) seamless tubes for use as casing, tubing and coupling stock
- ISO 14224/API Std 689 Collection and exchange of reliability and maintenance data for equipment
- ISO 14310/API Spec 11D1 Packers and bridge plugs
- ISO 14998 Downhole equipment — Completion accessories
- ISO 15156/NACE MR 0175 Materials for use in H2S-containing environments in oil and gas production
- ISO 16070/API Spec 14L Lock mandrels and landing nipples
• ISO 17078-4 Practices for side pocket mandrels and related equipment
• ISO 17824 Sand screens
• ISO 20815 Production assurance and reliability management
• ISO 23936-1 Non-metallic materials in contact with media related to oil and gas production – Part 1: Thermoplastics
• ISO 23936-2 Non-metallic materials in contact with media related to oil and gas production – Part 2: Elastomers
• ISO 28781 Subsurface barrier valves and related equipment
• NORSOK D-001 Drilling facilities
• NORSOK D-002 Well intervention equipment
• NORSOK D-007 Well testing systems
• NORSOK D-010 Well integrity in drilling and well operations
• NORSOK M-710 Qualification of non-metallic sealing materials and manufacturers – Polymers
• NORSOK U-001 Subsea production systems
• Norwegian Oil & Gas 117 Well integrity guideline

Well management related documents:

• API Bull E3 Well Abandonment and Inactive Well Practices for U.S. Exploration and Production Operations
• API Bull 97 Well Construction Interface Document
• API RP 17N Subsea Production System Reliability and Technical Risk Management
• API RP 54 Occupational Safety for Oil and Gas Well Drilling and Servicing Operations
• API RP 59 Well Control Operations
• API RP 75 Development of a Safety and Environmental Management Program for Offshore Operations and Facilities
• API RP 90 Annular Casing Pressure Management for Offshore Wells
• APPEA Prevention, Intervention and Response for Offshore Well Incidents
• APPEA Self-audit checklist for offshore operations
• APPEA Well operations competency management systems
• ENFORM IRP Volume #15 Snubbing Operations
• IADC HSE Case guidelines for Land Drilling Units
• IADC HSE Case guidelines for Mobile Offshore Drilling Units
• IADC Deepwater Well Control guidelines
• IEC 61511 Safety instrumented systems for the process industry sector
• IOGP 415 Asset integrity – the key to managing major incident risks
• IOGP 435 A guide to selecting appropriate tools to improve HSE culture
• IOGP 456 Process safety - recommended practice on key performance indicators
• IOGP 463 Deepwater wells - Global Industry Response Group recommendations
• IOGP 476 Recommendations for enhancements to well control training, examination and certification
• IOGP 510 Operating Management System (OMS) Framework
• IOGP 511 OMS in practice
• ISO 13702 Control and mitigation of fires and explosions on offshore production installations
• ISO 14224 Collection and exchange of reliability and maintenance data for equipment
• ISO 15544 Offshore production installations - Requirements and guidelines for emergency response
• ISO/TS 16530-2 Well integrity for the operational phase
• ISO 17776 Guidelines on tools and techniques for hazard identification and risk assessment
• NORSOK Z-013 Risk and emergency preparedness assessment
• Norwegian Oil & Gas 024 Competence requirements for drilling and well service personnel
• Norwegian Oil & Gas 117 Well Integrity
• Norwegian Oil & Gas 135 Classification and categorization of well control incidents and well integrity incidents
• OGUK OP064 Relief Well Planning
• OGUK OP065 Competency for Wells Personnel including example
• OGUK OP071 Guidelines for the suspension and abandonment of wells and guidelines on qualification of materials for the suspension and abandonment of wells
• OGUK OP092 BOP Systems for Offshore Wells
• OGUK OP095 Well Life Cycle Integrity Guidelines
• OGUK SC033 Well-operators on well examination and competency of well-examiners
New documents in development:

- API TR12 Effects of Hydrostatic Pressure on Subsea Equipment
- API 5EX Expandable tubulars
- API Std 16AR Repair and Remanufacture of Drill-through Equipment
- API RP 90-2 Annular Casing Pressure Management for Onshore Wells
- API RP 92M Managed Pressure Drilling Operations
- IADC Well Design & Execution Agreement
- ISO 16530-1 Well integrity – Life cycle governance
- ISO/TS 17969 Guidelines on competency management for well operations personnel

Revision history

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