

IMPROVEMENTS TO OFFSHORE SAFETY

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BY INDUSTRY AND GOVERNMENT



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INDUSTRY

JITF REPORTS

In response to the Gulf of Mexico (GOM) incident, the U.S. oil and natural gas industry launched a comprehensive review of offshore safety. Four Joint Industry Task Forces (JITFs) were assembled to focus on critical areas of GOM offshore activity: the Joint Industry Offshore Operating Procedures Task Force, the Joint Industry Offshore Equipment Task Force, the Joint Industry Subsea Well Control and Containment Task Force, and the Joint Industry Oil Spill Preparedness and Response Task Force.

The JITFs were not involved in the review of the incident; rather they brought together industry experts to identify best practices in offshore drilling operations and oil spill response; with the definitive aim of enhancing safety and environmental protection.

The ultimate goal for these JITFs was to improve well containment and intervention capability, spill response capability, and industry drilling standards to form comprehensive safe drilling operations; not only through evaluation and revision of industry guidelines and procedures, but also active engagement with regulatory processes.

JITF reports can be found <http://bit.ly/1xjpi49>

STANDARDS

API is the world's leading standard-developing organization for the oil and natural gas industry and has developed consensus standards since 1924. API's formal process is accredited by the American National

Standards Institute (ANSI), the same institute that accredits similar programs at several U.S. national laboratories. API standards are developed in an open and transparent process and are the most widely cited oil industry standards by Federal, State, and International Regulators. Since 2010 API has published over 250 new and revised exploration and production standards.

NEW UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 96)

Type	Doc No.	Title	Edition	Publication Date
RP	96	Deepwater Well Design and Construction	1	03/28/2013
Bull	97	Well Construction Interface Document Guidelines	1	12/04/2013
RP	98	Personal Protective Equipment Selection for Oil Spill Responders	1	08/06/2013
RP	99	Flash Fire Risk Assessment for the Upstream Oil and Gas Industry	1	04/22/2014
Bull	4719	Requesting Regulatory Concurrence for Subsea Dispersant Use	1	06/14/2017
RP	10B-9	Recommended Practice on Determining the Static Gel Strength of Cement Formulations	1	08/24/2010
TR	10TR6	Evaluation and Testing of Mechanical Cement Wiper Plugs	1	07/21/2015
TR	10TR7	Mechanical Behavior of Cement	1	12/06/2017
TR	13M-5	Procedure for Testing and Evaluating the Performance of Friction (Drag) Reducers in Aqueous-based Fluid Flowing in Straight, Smooth Circular Conduits	1	10/29/2018
TR	13TR1	Stress Corrosion Cracking of Corrosion Resistant Alloys in Halide Brines Exposed to Acidic Production Gas	1	11/15/2017

NEW UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 96)

Type	Doc No.	Title	Edition	Publication Date
TR	13TR3	Size Measurement of Dry, Granular Drilling Fluid Particulates	1	10/29/2018
Spec	15PX	Crosslinked Polyethylene (PEX) Linepipe	1	09/11/2018
Std	16AR	Standard for Repair and Remanufacture of Drill-through Equipment	1	04/24/2017
TR	16TR1	BOP Shear Ram Performance Test Protocol	1	07/12/2018
RP	17G5	Subsea Intervention Workover Control Systems	1	11/22/2019
Spec	17L1	Specification for Flexible Pipe Ancillary Equipment	1	03/05/2013
RP	17L2	Recommended Practice for Flexible Pipe Ancillary Equipment	1	03/05/2013
RP	17P	Recommended Practice for Structures and Manifolds of Subsea Production Systems	1	01/30/2013
RP	17Q	Recommended Practice for Subsea Equipment Qualification - Standardized Process for Documentation	1	06/18/2010
RP	17R	Recommended Practice for Flowline Connectors and Jumpers	1	03/13/2015
RP	17S	Recommended Practice for the Design, Testing and Operation of Subsea Multiphase Flow Meters	1	06/01/2015
TR	17TR10	Subsea Umbilical Termination (SUT) Design Recommendations	1	12/21/2015
TR	17TR11	Pressure Effects on Subsea Hardware during Flowline Testing in Deep Water	1	09/10/2015
TR	17TR12	Consideration of External Pressure in the Design and Pressure Rating of Subsea Equipment	1	03/12/2015
TR	17TR13	General Overview of Subsea Production Systems	1	03/23/2016

NEW UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 96)

Type	Doc No.	Title	Edition	Publication Date
TR	17TR15	API 17H Hydraulic Interfaces for Hot Stabs	1	12/29/2016
TR	17TR4	Subsea Equipment Pressure Ratings	1	01/20/2012
TR	17TR5	Avoidance of Blockages in Subsea Production Control and Chemical Injection Systems	1	03/14/2012
TR	17TR6	Attributes of Production Chemicals in Subsea Production Systems	1	03/15/2012
TR	17TR7	Verification and Validation of Subsea Connectors	1	04/04/2017
TR	17TR8	High-Pressure High-Temperature (HPHT) Design Guidelines	1	02/26/2015
TR	17TR9	Umbilical Termination Assembly (UTA) Selection and Sizing Recommendations	1	08/01/2017
RP	17U	Recommended Practice for Wet and Dry Thermal Insulation of Subsea Flowlines and Equipment	1	02/11/2015
Std	17V	Recommended Practice for Analysis, Design, Installation, and Testing of Safety Systems for Subsea Applications	1	02/26/2015
RP	17W	Recommended Practice for Subsea Capping Stacks	1	07/29/2014
Std	18LCM	Product Life Cycle Management System Requirements for the Petroleum and Natural Gas Industries	1	04/25/2017
TR	18TR1	Guidance Document on Changes to API Q1, 9th Edition	1	06/05/2015
TR	18TR2	Guidance to API Spec Q2	1	12/13/2017
TR	18TR4	Evaluation of Welding Requirements as Applicable to API Product Specifications	1	12/13/2017
Spec	19AC	Specification for Completion Accessories	1	09/27/2016

NEW UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 96)

Type	Doc No.	Title	Edition	Publication Date
Spec	19CI	Downhole Chemical Injection Devices and Related Equipment	1	06/14/2019
RP	19G10	Design and Operation of Intermittent Gas-Lift Wells Systems	1	09/18/2018
RP	19G11	Dynamic Simulation of Gas-Lift Wells and Systems	1	10/10/2018
Spec	19G2	Flow-control Devices for Side-pocket Mandrels	1	06/23/2010
Spec	19G3	Running Tools, Pulling Tools and Kick-over Tools and Latches for Side-pocket Mandrels	1	06/02/2011
RP	19G4	Practices for Side-pocket Mandrels and Related Equipment	1	06/02/2011
RP	19G5	Operation, Maintenance, Surveillance and Troubleshooting of Gas-Lift Installations	1	07/08/2019
Spec	19LH	Liner Hanger Equipment	1	06/18/2019
Spec	19OH	Openhole Isolation Equipment	1	01/08/2018
Spec	19SS	Sand Screens	1	07/16/2018
Spec	19TT	Specification for Downhole Well Test Tools and Related Equipment	1	10/27/2016
Spec	19V	Subsurface Barrier Valves and Related Equipment	1	05/29/2013
TR	1PER15K-1	Protocol for Verification and Validation of HPHT Equipment	1	03/17/2013
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 October 2013 and Addendum 2 dated April 2015)	1	03/02/2012
Spec	20B	Open Die Shaped Forgings for use in the Petroleum and Natural Gas Industry	1	04/26/2013

NEW UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 96)

Type	Doc No.	Title	Edition	Publication Date
Std	20D	Nondestructive Examination Services for Equipment used in the Petroleum and Natural Gas Industry	1	09/06/2013
Spec	20E	Alloy and Carbon Steel Bolting for use in the Petroleum and Natural Gas Industries (includes Errata dated October 2014)	1	08/10/2012
Spec	20F	Corrosion Resistant Bolting for Use in the Petroleum and Natural Gas Industries	1	06/19/2015
Std	20G	Welding Services for Equipment used in the Petroleum and Natural Gas Industry	1	01/21/2020
Std	20H	Heat Treatment Services - Batch Type for Equipment Used in the Petroleum and Natural Gas Industry	1	10/29/2015
Std	20J	Qualification of Distributors of Metallic Materials for Use in the Petroleum and Natural Gas Industries	1	05/17/2017
Std	20L	Qualification of Nonmetallic Seal Suppliers for Equipment Used in the Petroleum and Natural Gas Industry	1	04/11/2018
Std	20M	Qualification of Suppliers of Machining Services for Use in the Petroleum and Natural Gas Industries	1	10/10/2017
Std	20N	Heat Treatment Services - Continuous Furnace for Equipment Used in the Petroleum and Natural Gas Industry	1	08/15/2019
TR	21TR1	Materials Selection for Bolting	1	08/12/2019
Std	2CCU	Offshore Cargo Carrying Units	1	08/02/2017
RP	2EQ	Seismic Design Procedures and Criteria for Offshore Structures	1	11/11/2014
TR	2FC-1	Studlink and Studless Fatigue Curves for Mooring Lines	1	01/06/2020

NEW UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 96)

Type	Doc No.	Title	Edition	Publication Date
TR	2FC-2	Fatigue TN Curves for Chain, Wire, and Polyester Mooring Lines (Including Corrections for High-Tension Ranges)	1	01/06/2020
RP	2FSIM	Floating Systems Integrity Management	1	09/10/2019
RP	2GEO	Geotechnical and Foundation Design Considerations	1	04/20/2011
RP	2MET	Metoccean Design and Operating Considerations	1	11/11/2014
RP	2MIM	Mooring Integrity Management	1	09/10/2019
RP	2MOP	Marine Operations (includes Errata 1 dated April 2015)	1	07/29/2010
TR	2PY	Effect of Best-Estimate Geotechnical p-y Curves on Performance of Offshore Structures	1	02/25/2020
RP	2RIM	Integrity Management of Risers from Floating Production Facilities	1	09/10/2019
Spec	2SF	Manufacture of Structural Steel Forgings for Primary Offshore Applications	1	08/09/2013
RP	2SIM	Structural Integrity Management of Fixed Offshore Structures	1	11/11/2014
RP	2TOP	Topsides Structure	1	08/01/2019
RP	5C8	Care, Maintenance, and Inspection of Coiled Tubing	1	01/18/2017
RP	5EX	Design, Verification, and Application of Solid Expandable Systems	1	05/14/2018
RP	5LT	Recommended Practice for Truck Transportation of Line Pipe	1	03/22/2012
TR	5TP	Torque-Position Assembly Guidelines for API Casing and Tubing Connections	1	12/04/2013
Std	6ACRA	Age-Hardened Nickel-Based Alloys for Oil and Gas Drilling and Production Equipment	1	08/03/2015

NEW UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 96)

Type	Doc No.	Title	Edition	Publication Date
Std	6AV2	Installation, Maintenance and Repair of Surface Safety Vavles and Underwater Safety Valves Offshore (includes Errata 1, August 2014)	1	03/11/2014
TR	6MET	Metallic Material Limits for Wellhead Equipment Used in High Temperature for API 6A and 17D Applications	1	10/18/2010
Std	6X	Design Calculations for Pressure-containing Equipment	1	03/11/2014
TR	7CR	Cold Working Thread Roots with CNC Lathes for Rotary Shouldered Connections	1	01/10/2020
Std	7CW	Casing Wear Tests	1	06/01/2015
Bull	92L	Drilling Ahead Safely with Lost Circulation in the Gulf of Mexico	1	08/19/2015
RP	92M	Managed Pressure Drilling Operations with Surface Back-pressure	1	09/19/2017
RP	92P	Managed Pressure Drilling Operations — Pressurized Mud Cap Operations with Subsea Blowout Preventer	1	06/05/2019
RP	92S	Managed Pressure Drilling Operations – Surface Back-pressure with a Subsea Blowout Preventer	1	09/26/2018
API	OSRC	Proceedings of the 2014 Offshore Structural Reliability Conference	1	12/23/2015
Spec	Q2	Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries	1	12/14/2011
RP	T-8	Safety Training for Workers on Offshore Production Facilities	1	01/21/2019

REVISED UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 116)

Type	Doc No.	Title	Edition	Publication Date
Std	53	Blowout Prevention Equipment Systems for Drilling Wells	5	12/18/2018
RP	54	Occupational Safety and Health for Oil and Gas Well Drilling and Servicing Operations	4	02/20/2019
Std	64	Diverter Equipment Systems	3	08/25/2017
RP	67	Oilfield Explosives Safety	3	10/03/2019
RP	75	Safety and Environmental Management System for Offshore Operations and Assets	4	12/04/2019
RP	1145	Preparation of Response Plans for Oil Spills from Offshore Facilities	2	02/13/2018
Spec	7-2	Threading and Gauging of Rotary Shouldered Connections	2	01/06/2017
Spec	10A-A1	Cements and Materials for Well Cementing	25	11/27/2019
RP	10B-2	Recommended Practice for Testing Well Cements	2	04/11/2013
RP	10B-3	Testing of Well Cements Used in Deepwater Well Construction	2	01/12/2016
RP	10B-4	Preparation and Testing of Foamed Cement Formulations at Atmospheric Pressure	2	10/01/2015
Spec	10F	Cementing Float Equipment Testing	4	07/25/2018
RP	11S8	Recommended Practice on Electric Submersible Pump System Component Vibrations	2	10/19/2012
Spec	13A	Drilling Fluid Materials	19	10/10/2019
RP	13B-1	Field Testing Water-Based Drilling Fluids	5	05/23/2019

REVISED UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 116)

Type	Doc No.	Title	Edition	Publication Date
RP	13B-2	Recommended Practice for Field Testing Oil-based Drilling Fluids (includes Errata 1 dated August 2014)	5	04/28/2014
RP	13C	Recommended Practice on Drilling Fluid Processing Systems Evaluation	5	10/13/2014
RP	13D	Rheology and Hydraulics of Oil-well Drilling Fluids	7	09/05/2017
RP	13J	Testing of Heavy Brines	5	10/30/2014
RP	13K	Chemical Analysis of Barite	3	05/24/2011
RP	13L	Training and Qualification of Drilling Fluid Technologists	2	11/22/2017
Spec	14A	Subsurface Safety Valve Equipment (includes Errata dated July 2015)	12	01/15/2015
RP	14B	Design, Installation, Operation, Test and Redress of Subsurface Safety Valve Systems	6	09/10/2015
RP	14C	Analysis, Design, Installation and Testing of Basic Surface Safety Systems on Offshore Production Platforms	8	02/17/2017
RP	14F	Design and Installation of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Division 1, and Division 2 Locations	6	10/19/2018
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	2	05/02/2013
Spec	15HR	High-pressure Fiberglass Line Pipe	4	02/12/2016
Spec	15S	Spoolable Reinforced Plastic Line Pipe	2	03/24/2016
Spec	16A	Specification for Drill-through Equipment	4	04/24/2017

REVISED UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 116)

Type	Doc No.	Title	Edition	Publication Date
Spec	16C	Choke and Kill Systems	2	03/26/2015
Spec	16D	Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Equipment	3	11/29/2018
Spec	16F	Specification for Marine Drilling Riser Equipment	2	11/30/2017
RP	16Q	Design, Selection, Operation and Maintenance of Marine Drilling Riser Systems	2	04/11/2017
Spec	16RCD	Specification for Rotating Control Devices	2	09/10/2015
RP	17A	Design and Operation of Subsea Production Systems - General Requirements and Recommendations	5	05/05/2017
RP	17B	Recommended Practice for Flexible Pipe	5	05/02/2014
Spec	17D	Specification for Subsea Wellhead and Christmas Tree Equipment	2	05/02/2011
Spec	17E	Specification for Subsea Umbilicals	5	07/13/2017
Spec	17E	Specification for Subsea Umbilicals	4	10/19/2010
Spec	17F	Standard for Subsea Production Control Systems	3	05/16/2014
Std	17F	Standard for Subsea Production Control Systems	4	11/25/2017
Std	17G	Design and Manufacture of Subsea Well Intervention Equipment	3	11/22/2019
RP	17H	Recommended Practice for Remotely Operated Tools and Interfaces on Subsea Production Systems	2	06/18/2013
RP	17H	Remotely Operated Tools and Interfaces on Subsea Production Systems	3	07/23/2019
Spec	17J	Specification for Unbonded Flexible Pipe	4	05/02/2014

REVISED UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 116)

Type	Doc No.	Title	Edition	Publication Date
Spec	17K	Specification for Bonded Flexible Pipe	3	08/29/2017
RP	17N	Recommended Practice on Subsea Production System Reliability, Technical Risk Management and Integrity Management	2	06/23/2017
Std	17O	Standard for Subsea High Integrity Pressure Protection Systems (HIPPS)	2	07/23/2014
RP	17P	Recommended Practice for Subsea Structures and Manifolds	2	01/31/2019
RP	17Q	Recommended Practice on Subsea Equipment Qualification	2	05/09/2018
TR	17TR4	Subsea Equipment Pressure Ratings	2	05/25/2016
TR	17TR8	High-Pressure High-Temperature Design Guidelines	2	03/13/2018
TR	17TR8-A1	High-Pressure High-Temperature Design Guidelines	2	04/25/2019
RP	19B-A1	Evaluation of Well Perforators - Addendum 1	2	04/29/2014
Std	19C	Measurement of and Specifications for Proppants Used in Hydraulic Fracturing and Gravel-packing Operations	2	08/08/2018
Spec	19G1	Side-pocket Mandrels	2	02/22/2019
RP	19G9	Design, Operation, and Troubleshooting of Dual Gas-lift Wells	2	04/29/2015
Spec	19V	Subsurface Completion Isolation (Barrier) Valves and Related Equipment	2	05/14/2019
Spec	20A	Carbon Steel, Alloy Steel, Stainless Steel, and Nickel Base Alloy Castings for Use in the Petroleum and Natural Gas Industry	2	08/02/2017
Spec	20C	Closed Die Forgings for Use in the Petroleum and Natural Gas Industry	2	11/06/2015
Std	20D	Qualification of Nondestructive Examination Services for Equipment used in the Petroleum and Natural Gas Industry	2	08/13/2019

REVISED UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 116)

Type	Doc No.	Title	Edition	Publication Date
Spec	20E	Alloy and Carbon Steel Bolting for use in the Petroleum and Natural Gas Industries	2	02/13/2017
Spec	20F	Corrosion Resistant Bolting for Use in the Petroleum and Natural Gas Industries	2	05/18/2018
RP	2A-LRFD	Planning, Designing, and Constructing Fixed Offshore Platforms - Load and Resistance Factor Design	2	08/01/2019
RP	2A-WSD	Planning, Designing and Constructing Fixed Offshore Platforms - Working Stress Design	22	11/11/2014
Spec	2C	Offshore Pedestal-mounted Cranes	7	04/24/2012
RP	2D	Operation and Maintenance of Offshore Cranes	7	12/05/2014
RP	2FPS	Planning, Designing, and Constructing Floating Production Systems	2	10/04/2011
RP	2MET	Metocean Design and Operating Considerations	2	11/21/2019
RP	2N	Planning, Designing, and Constructing Structures and Pipelines for Arctic Conditions	3	04/24/2015
Std	2RD	Dynamic Risers for Floating Installations	2	09/06/2013
RP	2SM	Design, Manufacture, Installation, and Maintenance of Synthetic Fiber Ropes for Offshore Mooring	2	07/31/2014
RP	2T	Planning, Designing and Constructing Tension Leg Platforms	3	07/29/2010
Spec	2W	Steel Plates Produced by Thermo-Mechanically Controlled Processing (TMCP) for Offshore Structures	6	01/04/2019
Spec	4F	Drilling and Well Servicing Structures	4	01/31/2013
RP	4G	Operation, Inspection, Maintenance, and Repair of Drilling and Well Servicing Structures	5	02/28/2019
Spec	5B	Threading, Gauging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads	16	12/12/2017

REVISED UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 116)

Type	Doc No.	Title	Edition	Publication Date
TR	5C3	Calculating Performance Properties of Pipe Used as Casing or Tubing	7	06/06/2018
RP	5C5	Procedures for Testing Casing and Tubing Connections	4	01/06/2017
RP	5C6	Pipe with Welded Connectors	3	05/31/2018
Spec	5CT	Casing and Tubing	10	06/08/2018
Spec	5L	Line Pipe	46	04/06/2018
RP	5L3	Drop-Weight Tear Tests on Line Pipe	4	08/07/2014
Spec	5LC	CRA Line Pipe (includes Errata dated October 2015)	4	03/02/2015
Spec	5LD	CRA Clad or Lined Steel Pipe	4	03/02/2015
Bull	5T1	Imperfection and Defect Terminology	11	10/05/2017
Std	64-A1	Diverter Equipment Systems	3	12/12/2018
RP	65-1	Cementing Shallow Water Flow Zones in Deepwater Wells	2	06/26/2018
Std	65-2	Isolating Potential Flow Zones During Well Construction	2	12/10/2010
Spec	6A	Specification for Wellhead and Tree Equipment	21	11/08/2018
TR	6AF2	Technical Report on Capabilities of API Integral Flanges Under Combination of Loading - Phase II	4	10/15/2010
TR	6AF2	Technical Report on Capabilities of API Integral Flanges Under Combination of Loading - Phase II	5	04/09/2013
RP	6AR	Repair and Remanufacture of Wellhead and Tree Equipment	2	09/09/2019
Spec	6AV1	Specification for Validation of Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service	2	02/22/2013
Spec	6AV1	Validation of Safety and Shutdown Valves for Sandy Service	3	07/13/2018
Spec	6DSS	Specification for Subsea Pipeline Valves	3	08/14/2017

REVISED UPSTREAM OFFSHORE STANDARDS PUBLISHED (TOTAL = 116)

Type	Doc No.	Title	Edition	Publication Date
Std	6FA	Standard for Fire Test for Valves	4	06/19/2018
Std	6FB	Standard for Fire Test for End Connections	4	05/20/2019
RP	6HT	Heat Treatment and Testing of Carbon and Low Alloy Steel Large Cross Section and Critical Section Components	2	06/21/2013
TR	6MET	Metallic Material Limits for Wellhead Equipment Used in High Temperature for API 6A and API 17D Applications	2	08/20/2018
Std	6X	Design Calculations for Pressure-containing Equipment	2	02/04/2019
Spec	7F	Oil Field Chain and Sprockets	8	11/11/2010
Spec	7K	Drilling and Well Servicing Equipment	5	06/08/2010
Spec	7K	Drilling and Well Servicing Equipment	6	12/14/2015
RP	8B	Inspection, Maintenance, Repair, and Remanufacture of Hoisting Equipment	8	05/20/2014
RP	8B-A1	Inspection, Maintenance, Repair, and Remanufacture of Hoisting Equipment	8	03/19/2019
Spec	8C	Drilling and Production Hoisting Equipment (PSL 1 and PSL 2) (includes Errata dated May 2014)	5	04/02/2012
Spec	9A	Specification for Wire Rope	26	05/31/2011
Spec	9A-A1	Specification for Wire Rope	26	11/01/2016
RP	9B	Application, Care, and Use of Wire Rope for Oil Field Service	13	10/03/2011
RP	9B	Application, Care, and Use of Wire Rope for Oil Field Service	14	10/01/2015
RP	E3	Well Abandonment and Decommissioning	2	04/19/2018
API	OSRC	Proceedings of the 2018 Offshore Structural Reliability Conference	2	01/31/2020
Spec	Q1	Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry	9	06/03/2013
RP	T-1	Creating Orientation Programs for Personnel Going Offshore	5	11/09/2016

CENTER FOR OFFSHORE SAFETY (COS)

The Center for Offshore Safety (COS) was formed in 2011 based on recommendations from the Presidential Commission and industry study teams to drive continuous improvement in the implementation and effectiveness of Safety and Environmental Management Systems (SEMS) throughout the U.S. offshore oil and natural gas industry. The mission of COS is to promote the highest level of safety for offshore drilling, completions, and operations through:

- Effective leadership
- Communication
- Teamwork
- Use of disciplined SEMS
- Third party auditing by accredited Audit Service Providers

COS is governed by a diverse board representing the breadth of the industry. The board includes operators, drilling contractors, service and supply companies, and other Associations. COS full-time staff work with numerous industry committees, subcommittees and work groups organized by COS to address specific SEMS concerns and opportunities.

SEMS in the U.S. industry and the work of COS is based on and defined by API Recommended Practice 75 (API RP 75). COS is focused on delivering SEMS tools, best practices, and implementation techniques based on API RP 75,

as well as identified needs from annually collected safety data. The work continues as part of COS's commitment to learn and continuously improve SEMS and safety culture via SEMS. Furthermore, COS's work is prioritized into the following areas:

1. Safety and SEMS Data Collection, Analysis and Reporting
2. Good Practice Development
3. Sharing Industry Knowledge
4. Accreditation

COS SEMS DATA COLLECTION, ANALYSIS AND REPORTING

SEMS Audits, Learning from Incidents (LFI), and Safety Performance Indicators (SPI) are the key data collected for analyses to determine what good practice development and sharing that continually improve SEMS effectiveness. COS collects SPI and LFI data annually from members, which covers both process safety and personnel safety. The data is analyzed and used to generate an annual report that is publicly available and supplied to regulators. The LFI data is also used to generate Safety Shares to communicate directly with offshore workers. These one-page incident reports review the details of incidents and near-misses, as well as the lessons learned from them, to prompt discussions amongst offshore workers for how a similar incident might be prevented. The COS Annual Performance Report reflects the Center for Offshore Safety's commitment to open communication and transparency of safety information, and to building collaboration and sharing safety and SEMS learnings in the industry.

GOOD PRACTICE DEVELOPMENT

COS uses safety and SEMS data collected and SEMS audit results to drive the development of good practice documents, SEMS implementation techniques, and all the work of COS. This includes resources related to leadership engagement, SEMS maturity self-assessment, and safety culture. As an example the “Leadership Site Engagement” good practice provides real, practical ways for leaders to engage the offshore workforce to embrace SEMS and also to evaluate SEMS effectiveness at the site. The COS documents are developed in a transparent process that applies the best program elements from successful safety and SEMS programs as well as the learnings developed by the workgroups to address the unique challenges of offshore oil and natural gas operations. The good practices, enhancements to SEMS implementation and auditing, and other tools from COS also contribute to reducing the likelihood of major incidents through the continual improvement in risk management which results in the identification and correction of weaknesses in the barriers that prevent their occurrence.

SHARING INDUSTRY KNOWLEDGE

COS works closely with members and other trade associations to share knowledge with and facilitate collaboration between all stakeholders. In addition to coordinating multiple member work groups, COS organizes and participates in various industry workshops webinars, and conferences to promote best practices in offshore SEMS performance.

ACCREDITATION

COS also works with the regulatory agency, the U.S. Bureau of Safety and Environmental Enforcement (BSEE), which requires SEMS implementation by operators as part of the SEMS Regulation. The regulation wholly references API RP 75 as well as numerous COS Guidance documents. As part of compliance with BSEE regulations, operators are required to conduct third-party audits of their SEMS every three years by accredited Audit Service Providers (ASP’s).

COS is the accreditation body for these ASP’s and therefore focuses on enhancing SEMS auditing to support an independent third-party auditing process. The development of uniform COS audit tools, processes, and audit documents assists in implementing SEMS and creating uniformity that enhances sharing and learning from audit results.

COS DRIVING OPERATIONAL EXCELLENCE

From the beginning, COS has provided a place for the industry to come together, share lessons learned, collaborate, and continually improve SEMS performance. COS enables industry to continually improve safety and environmental performance through auditing of safety and environmental management systems, developing good practice, and capturing and sharing industry learnings. COS helps to convene subject matter experts from multiple stakeholder organizations to develop these practices and stimulate cooperation among all stakeholders to share and learn from the best of each other. More information on COS can be found at <http://www.centerforoffshoresafety.org>.

Subsea Well Intervention Capability

The Marine Well Containment Company (<http://www.marinewellcontainment.com>) and the HWCG, LLC (<http://www.hwcg.org>) were founded in 2010 to provide containment technology and response capabilities for the unique challenges of capping a well that is releasing oil thousands of feet below the water’s surface.

These companies employ a mix of experienced engineers and crisis response specialists well-versed in the technical world of offshore operations and incident response, maintain quickly deployable systems that are designed to stem any uncontrolled flow of hydrocarbons from a subsea well and facilitate training of their member companies on the installation and operation of these systems.

These systems also provide the potential to capture flow from a subsea well incident via subsea equipment, risers and containment vessels that can safely capture, store and offload the oil.

MWCC CONTAINMENT SYSTEM IN A CAP AND FLOW SCENARIO

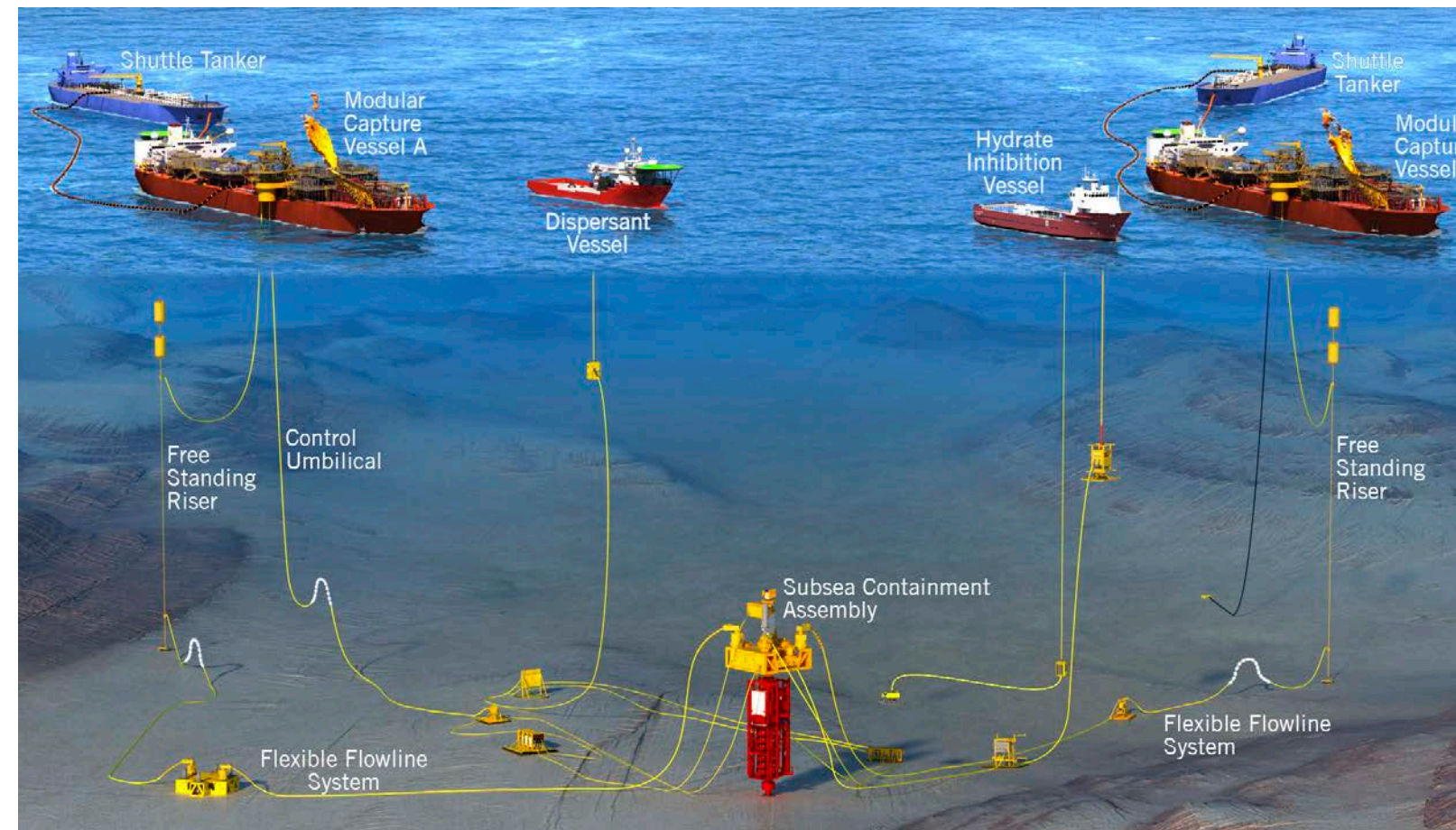
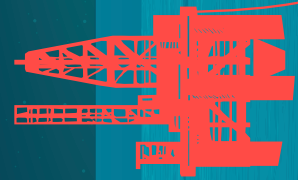


Photo Copyright 2010-2015 Marine Well Containment Company



RESPONSE SYSTEM & SCHEDULE



TIME ZERO

INCIDENT OCCURS

As Soon As Possible
 Stand-Up Source Control IMT
 Perform Site Assessment
 Intervene on Incident BOP
 Begin Subsea Dispersant Injection

SOURCE CONTROL SECTION

- SIMOPS Group
- Well Capping Group
- Flow Engineering Group
- Flow Back Group
- Relief Well Group

7-14 DAYS

LAND CAPPING STACK

Remove Debris
 Land Capping Stack
 Begin Soft Shut-in Sequence
 Monitor Well and Shut-In Pressures
 Open Well if integrity is Lost, go to F&C
 Kill Well if Well Integrity is Adequate



15K-350°F 20K-350°F

9-11 DAYS

REDUCED FLOW & CAPTURE

Finalize Rig-Up for Flow & Capture
 Land IRS on Capping Stack
 Flare Oil & Gas

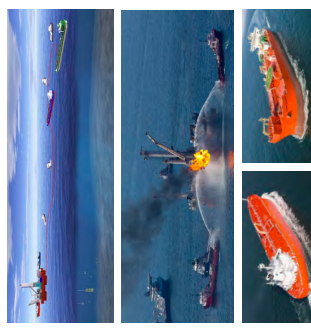


12KBOPD & ASSOCIATED GAS

11-18 DAYS

EXTENDED FLOW & CAPTURE

Rig-Up of Crude Transfer Equipment
 Begin 3 Phase Separation
 Flare Gas & Offload Oil



130KBOPD & 220MMSCF / DAY

RELIEF WELL

SPUD IN 5-10 DAYS

Drill Relief Well
 Duration is Depth Dependent
 Intercept Incident Well
 Perform Bottom Kill



READY TO RESPOND

VISIT US ONLINE AT:
WWW.HWCCG.ORG

Oil Spill Prevention and Response

The U.S. oil and natural gas industry is committed to meeting the nation's energy needs while maintaining safe and environmentally sound operations. This requires continuous investment and improvement in every phase of preparedness and operations in which oil is produced, transported, stored, and marketed.

Exploration and production facilities use advanced technologies, materials, and practices, which incorporate multiple back-up safety systems. Pipelines employ computers, electromagnetic instruments, and ultrasonic devices that detect vulnerabilities to enable proactive maintenance and repair. Marine terminal and vessel designs are constantly improved; tankers, for example, are now built with double hulls as an extra measure of security.

Additionally, storage tanks are now constructed with special materials to withstand corrosion. Industry also invests in practices and technologies that ensure a quick and effective response in the event of a spill.

The U.S. has established one of the world's most sophisticated and well-coordinated spill response networks by bringing together the resources and expertise of private industry, public agencies, and academia to make sure we learn everything we can from

past incidents. In addition to learning from past incidents, the industry has invested heavily in researching the different response techniques and deployment methodologies of tools we have to mitigate oil spills. Specifically, subsea dispersant injection was a novel technique used in the Macondo response, and since the technology has been proven and there is worldwide capability to deploy the technology should the nature of a particular spill warrant its use. API shares reports from across the industry on projects and research related to oil spill response at <http://www.oilspillprevention.org>. Industry continues to invest in oil spill research through API and other research initiatives, with a commitment to transparently sharing new discoveries and lessons across the spill response community through this website, academic peer-reviewed journals, and through presenting at worldwide conferences.

In addition to research and the validation of technology, industry also prepares to respond by conducting drills and exercises, inviting regulators and government to actively participate as they would in a real event. These drills allow all participants to learn to respond most effectively, combining skillsets across disciplines and feeding back into their respective organizations. To be prepared, all responding organizations need to understand their role within the response structure, and industry encourages participation from regulators and other response stakeholders in these drills.

Courtesy of HWCCG, LLC.

Response Capabilities

SPILL RESPONSE PLANNING

- Guidelines for Oil Spill Response Training and Exercise Programs, API Technical Report 1159API
- Recommended Practice 1145 – Preparation of Response Plans for Oil Spills from Offshore Facilities
- API Recommended Practice 98 – Personal Protective Equipment Selection for Oil Spill Responders
- Net Environmental Benefit Analysis (NEBA) Graphical Briefing
- Guidelines on Implementing Spill Impact Mitigation Assessment (SIMA)
- Introduction to Net Environmental Benefit Analysis (NEBA)

OIL SENSING & TRACKING

- Remote Sensing in Support of Oil Spill Response, API Technical Report 1144

DISPERSANTS

- Dispersants Fact Sheet 1 – Introduction to Dispersants
- Dispersants Fact Sheet 2 – Dispersants and Human Health and Safety
- Dispersants Fact Sheet 3 – Fate of Oil and Weathering

- Dispersants Fact Sheet 4 – Toxicity and Dispersants
- Dispersants Fact Sheet 5 – Dispersant Use Approvals in the United States
- Dispersants Fact Sheet 6 – Trade Offs
- Dispersants Fact Sheet 7 – Aerial Vessel
- Dispersants Fact Sheet 8 – Subsea and Point Source Dispersant Operations
- Dispersant Fact Sheet 9 – Dispersant Use & Regulation Timeline
- Dispersant Fact Sheet 10 – Dispersant Use in the Arctic Environment
- Industry Recommended Subsea – Dispersant Monitoring Plans
- API JITF Subsea Dispersants Injection Newsletters
- The Role of Dispersants in Oil Spill Response
- SINTEF Dispersants Effectiveness Report – Phases 1 through 6
- Industry Recommended Sub-sea Dispersant Monitoring Plan, API Technical Report 1152
- Introduction to the Role of Dispersants in Oil Spill Response
- Aerial and Vessel Dispersant Preparedness and Operations Guide, API Technical Report 1148
- Report: Evaluation of Models for Subsurface Dispersant Injection
- Industry Guidelines on Requesting Regulatory Concurrence for Subsea Dispersant Use, API Bulletin 4719

IN-SITU BURNING

- ISB Fact Sheet 1: Introduction to In-Situ Burning
- ISB Fact Sheet 2: Fate of Burned Oil
- ISB Fact Sheet 3: Human Health and Environmental Effects
- ISB Fact Sheet 4: Assessing ISB Benefits and Risk
- ISB Fact Sheet 5: ISB Approvals in the U.S.
- ISB Fact Sheet 6: ISB Operations
- In-Situ Burning – The Fate of Burned Oil, API Publication 4735
- In Situ Burning: A Decision Maker's Guide, API Technical Report 1256
- In Situ Burning Guidance for Safety Officers and Safety and Health Professionals, API Technical Report 1254
- API Selection and Training Guidelines for In Situ Burning Personnel, API Technical Report 1253
- Field Operations Guide for In-situ Burning of On-Water Oil Spills, API Technical Report 1252
- Field Operations Guide for In-situ Burning of Inland Oil Spills, API Technical Report 1251

MECHANICAL RECOVERY

- Deepwater Horizon Mechanical Recovery System Evaluation Technical Report 1143

SHORELINE PROTECTION

- Oil Spills in Marshes
- Subsurface Oil Detection Report
- Subsurface Oil Detection Field Guide
- Subsurface Oil Detection and Delineation in Shoreline Sediments
- Shoreline Protection on Sand Beaches (aka Berms and Barriers) Report
- Shoreline Protection on Sand Beaches (aka Berms and Barriers) Guide
- Mechanized Cleanup of Sand Beaches Report
- Tidal Inlet Protection Strategies (TIPS) Report
- Biodegradation & Bioremediation on Sand Beaches Report
- Canine Oil Detection: Field Trials Report, API Technical Report 1149-3
- Canine Oil Detection: (K9 – SCAT) Guidelines, API Technical Report 1149-4
- Mechanical Treatment of Sand Beaches Historical Library Report, API Technical Report 1151-4
- Shoreline In Situ Treatment (Sediment Mixing and Relocation) Fact Sheet, API Technical Report 1155-2
- Shoreline In Situ Treatment (Sediment Mixing and Relocation) Job Aid, API Technical Report 1155-3

ALTERNATIVE RESPONSE TECHNOLOGIES

- Evaluation of Alternative Response Technology Evaluation (ARTES) Technical Report 1142

INLAND PREPAREDNESS AND RESPONSE

- Inland Oil Spill Preparedness and Response Overview
- Sunken Oil Detection and Recovery, API Technical Report 1154-1
- Sunken Oil Detection and Recovery Operational Guide, API Technical Report 1154-2
- Options for Minimizing Environmental Impacts of Inland Spill Response, API Technical Report 425
- Onshore Hazardous Liquid Pipeline Emergency Preparedness and Response, API Recommended Practice 1174

RESEARCH PUBLICATIONS FUNDED THROUGH API

Brandvik, P.J., Johansen, Ø., Leirvik, F., Krause, D.F. and Daling, P.S. 2018: Subsea Dispersants Injection (SSDI), Effectiveness of Different Dispersant Injection Techniques – An Experimental Approach. Mar. Pollut. Bull. Volume 136, (2018), pp. 385-393.

Brandvik, P.J., Daling, P.S., Leirvik, F. and Krause, D.F. 2019: Interfacial tension between oil and seawater as a function of dispersant dosage. Mar. Pollut. Bull. Volume 143, (2019), pp. 109-114.

Brandvik, P.J., Davies, E., Storey, C. and Johansen, Ø. 2019: Formation and Quantification of Oil droplets under High Pressure Down-Scaled Laboratory Experiments Simulating Deep Water Releases and Subsea Dispersants Injection (SSDI). Mar. Pollut. Bull. Volume 138, (2019), pp. 520-525.

Davies, E.J., Dunnebie, D.A.E., Johansen, Ø., Masutani, S., Nagamine, I., Brandvik, P.J. 2019: Shedding from chemically treated oil droplets rising in seawater. Mar. Pollut. Bull. Volume 143, (2019), pp. 256-263.

Brandvik, P.J., Storey, C. Davies, E., and Johansen, Ø. 2019: Combined releases of oil and gas under pressure; the influence of live oil and natural gas on initial oil droplet formation. Mar. Pollut. Bull. Volume 140, (2019), pp. 485-492.

French-McCay, D. et al. Comparative Risk Assessment of spill response options for a deepwater oil well blowout: Part 1. Oil spill modeling. Mar. Pollut. Bull. Volume 133, (2018), pp. 1001-1015

Bock, M. et al. Comparative risk assessment of oil spill response options for a deepwater oil well blowout: Part II. Relative risk methodology. Mar. Pollut. Bull. Volume 133, (2018), pp. 984-1000.

Walker, A.H. et al. Comparative risk assessment of spill response options for a deepwater oil well blowout: Part III. Stakeholder engagement. Mar. Pollut. Bull. Volume 133, (2018). Pp. 970-983.

French-McCay, D. et al. Sensitivity of modeled oil fate and exposure from a subsea blowout to oil droplet sizes, depth, dispersant use, and degradation rates. Mar. Pollut. Bull. Volume 146, (2019). pp. 779-793.

Crowley, D. et al. Modeling atmospheric volatile organic compound concentrations resulting from a deepwater oil well blowout – Mitigation by subsea dispersant injection. Mar. Pollut. Bull. Volume 136, (2018). Pp. 152-163.

Socolofsky, S. et al. The treatment of biodegradation in models of sub-surface oil spills: A review and sensitivity study. Mar. Pollut. Bull. Volume 143 (2019). Pp. 204-219.

Terry C. Hazen, Roger C. Prince, and Nagissa Mahmoudi. Environmental Science & Technology 2016 50 (5), 2121-2129. DOI: 10.1021/acs.est.5b03333

McConville, M.M., J.P. Roberts, M. Boulais, B. Woodall, J.D. Butler, A.D. Redman, T. F. Parkerton, W.R. Arnold, J. Guyomarch, S. LeFloch, J. Bytingsvik, L. Camus, A. Volety, S.M. Brander (2018). The sensitivity of a deep-sea fish species (*Anoplopoma fimbria*) to oil-associated aromatic compounds, dispersant, and Alaskan North Slope crude oil, Environ Toxicol Chem. <https://doi.org/10.1002/etc.4165>

Paquin, P, J McGrath, C Fanelli, D Di Toro (2018) The Aquatic Hazard of Hydrocarbon Gases and the Modulating Role of Pressure on Dissolved Gas and Oil Toxicity, Mar. Pollut Bull <https://doi.org/10.1016/j.marpolbul.2018.04.051>

Brakstad, OG, A Lewis CJ. Beegle-Krause (2018). Marine snow in the context of oil spills and oil spill dispersant treatment, Mar. Pollut Bull <https://doi.org/10.1016/j.marpolbul.2018.07.028>

Hansen, BH T Parkerton, TR Størseth, T Nordtug, A Redman (2018) Modeling the toxicity of dissolved crude oil exposures to characterize the sensitivity of cod (*Gadus morhua*) larvae and role of individual and unresolved hydrocarbons, Accepted in Marine Pollution Bulletin 138: 286-294

Bytingsvik, J. et al. The sensitivity of the deepsea species northern shrimp (*Pandalus borealis*) and the cold-water coral (*Lophelia pertusa*) to oil-associated aromatic compounds, dispersant, and Alaskan North Slope crude oil.

Brandvik et al., 20119: Verifying algorithms for initial droplet formation (modified weber scaling) by simulating subsea releases of oil generating full-scale droplet sizes.



GOVERNMENT

The Federal Government responded to the Macondo incident by reorganizing the Minerals Management Service (MMS) and focusing on four areas of regulatory policy: **1)** blowout prevention, **2)** drilling safety, **3)** spill response and **4)** well containment. To help accomplish this, the MMS was reorganized into three new agencies:

- The Bureau of Ocean Energy Management (BOEM), responsible for energy leases in areas of the U.S. Outer Continental Shelf; <http://www.boem.gov>
- The Bureau of Safety and Environmental Enforcement (BSEE), responsible for enforcement of safety and environmental protection in all offshore energy activities; and, <http://www.bsee.gov>
- The Office of Natural Resources Revenue (ONRR), responsible for management of royalties and revenues. <http://www.onrr.gov>

BSEE Regulations

Government Agencies identified areas for improvement through a series of regulatory and policy actions.

Publication Date	Title
3/4/2020	Final Rule: Oil and Gas and Sulfur Operations on the Outer Continental Shelf — Civil Penalty Inflation Adjustment
1/10/2020	Final Rule: Privacy Act Regulations; Exemptions for the Investigations Case Management System
5/15/2019	Final rule: Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Blowout Prevention Systems and Well Control Revisions
3/25/2019	Final rule: Civil Penalty Inflation Adjustment
9/28/2018	Final rule: Oil and Gas and Sulphur Operations on the Outer Continental Shelf—Oil and Gas Production Safety Systems
1/18/2018	Final Rule: Civil Penalty Inflation Adjustment
6/9/2017	Final Rule: Lease Continuation through Operations
2/3/2017	Final Rule: Civil Penalty Adjustment
11/17/2016	Final Rule: Civil Penalty Inflation Adjustment
11/16/2016	Final Rule: Oil and Gas and Sulfur Operations in the OCS—Decommissioning Costs for Pipelines
7/15/2016	Final Rule: Oil and Gas and Sulfur Operations on the Outer Continental Shelf—Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf
6/28/2016	Interim Final Rule: Civil Penalty Inflation Adjustment
6/6/2016	Final Rule: Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Technical Corrections

BSEE REGULATIONS

Publication Date	Title
4/29/2016	Final Rule: Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Blowout Preventer Systems and Well Control
12/4/2015	Final Rule: Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Decommissioning Costs
9/24/2014	ANPR: Helideck and Aviation Fuel Safety for Fixed Offshore Facilities
10/1/2013	Final Rule: Adjustment of Service Fees
4/5/2013	Final Rule: Oil and Gas and Sulphur Operations in the OCS—Revisions to Safety and Environmental Management Systems Proposed under AD73
8/22/2012	Final Rule: Oil and Gas and Sulphur Operations on the OCS—Increased Safety Measures for Energy Development on the OCS
3/29/2012	Final Rule: Production Measure Documents Incorporated by Reference
10/18/2011	Direct Final Rule: Joint BOEM/BSEE: Reorganization of Title 30: Bureaus of Safety and Environmental Enforcement and Ocean Energy Management
6/30/2011	Final Rule: Oil and Gas and Sulphur Operations on the OCS—Civil Penalties
12/23/2010	Notice of Availability of an Initial Regulatory Flexibility Analysis: Increased Safety Measures for Energy Development on the OCS
10/15/2010	Final Rule: Oil and Gas and Sulphur Operations in the OCS—Safety and Environmental Management Systems
10/14/2010	Interim Final Rule with Request for Comments: Oil and Gas and Sulphur Operations in the OCS—Increased Safety Measures for Energy Development on the OCS
5/4/2010	Final Rule: Annular Casing Pressure Management for Offshore Wells
4/28/2010	Final Rule: Update of Revised and Reaffirmed Documents Incorporated by Reference

BSEE NOTICES TO LESSEES AND OPERATORS (NTLS)

NTL Number	Title	Effective Date
NTL 2020-N02	Revised OCSLA Civil Penalty Assessment Matrix	03/04/2020
NTL 2020-N01	Modifications to Form BSEE-0131	12/23/2019
NTL 2019-N05	Incident and Spill Reports	12/03/2019
NTL 2019-P02	Electronically Stored Records	10/01/2019
NTL 2019-G06	Inspection and Reporting for Hurricane Barry	07/29/2019
NTL 2019-N04	Calculating Maximum Anticipated Surface Pressure and Expected Surface Pressure for the Completion Case and Estimated Shut-in Tubing Pressure Prior to Production	05/10/2019
NTL 2019-G02	Guidance for Information Submissions Regarding Proposed High Pressure and/or High Temperature (HPHT) Well Design, Completion, and Intervention Operations	05/10/2019
NTL 2019-G03	Guidance for Information Submissions Regarding Site Specific and Non-Site Specific HPHT Equipment Design Verification Analysis and Design Validation Testing	05/10/2019
NTL 2019-G04	Requesting Approval to Consider External Hydrostatic Pressure Effects When Calculating Internal Pressure Containment Capability for Pressure Containing and Pressure Controlling Subsea Equipment	05/09/2019
NTL 2019-G05	Site Clearance and Verification for Decommissioned Wells, Platforms, and Other Facilities	05/09/2019
NTL 2019-G01	Suspension of Production/Operations Overview	05/07/2019
NTL 2019-N01	Electronic Submittal System for Deepwater Operations Plans	05/03/2019
NTL 2019-N02	Electronic Submittal of Requests, Reports, and Notifications	05/03/2019
NTL 2019-P01	Hydrogen Sulfide	03/20/2019
NTL 2018-G03	Idle Iron Decommissioning Guidance for Wells and Platforms	12/11/2018
NTL 2018-G02	Incident, Oil Spill, and Permit Request Notification (Regular Hours and After Hours Guidance)	09/27/2018
NTL 2018-P01	Contact with the Bureau of Safety and Environmental Enforcement Pacific Outer Continental Shelf Region Offices During and Outside Regular Work Hours	09/12/2018

BSEE NOTICES TO LESSEES AND OPERATORS (NTLS)

NTL Number	Title	Effective Date
NTL 2018-N05	Online Portals for SEMS Document Submission	09/09/2018
NTL 2018-G01	Ocean Current Monitoring	08/07/2018
NTL 2017-N06	Electronic Submittal of Oil Spill Response Plans and Related Information	12/29/2017
NTL 2017-G02	Inspection and Reporting for Hurricane Nate	10/12/2017
NTL 2017-G01	Inspection and Reporting for Hurricane Harvey	08/29/2017
NTL 2017-N04	Pipeline Right-of-Way Grant Assignments to Multiple Pipeline ROW Holders	08/18/2017
NTL 2017-N02	Reporting Requirements for Decommissioning Expenditures on the OCS	03/02/2017
NTL 2016-N07	Well Records Submittal	1/29/2016
NTL 2016-G01	New Address for the Lafayette District Office	01/27/2016
NTL 2016-N01	Incident of Noncompliance Response System	01/06/2016
NTL 2015-N05	Electronic Submittal of Production Facility Safety System Applications	12/31/2015
NTL 2015-G03	Marine Trash and Debris Awareness and Elimination	12/17/2015
NTL 2015-N06	Marine Trash and Debris Awareness and Elimination	12/15/2015
NTL 2015-N04	BSEE Headquarters Address Change from Herndon, VA to Sterling, VA	11/10/2015
NTL 2015-G02	Hurricane and Tropical Storm Effects Reports	07/27/2015
NTL 2015-N02	Limitations on Credit Card Collection Transactions and Policy for Splitting Transactions	07/23/2015
NTL 2014-G06	Lessee and Operator Refueling Requirements for BSEE-contracted Helicopters	12/22/2014
NTL 2014-G05	Contact with District Offices, Pipeline Section, and Resource Conservation Section Outside Regular Work Hours	12/12/2014
NTL 2014-G03	Release of Well Data and Information	10/22/2014
NTL 2014-G04	New Address and Phone Numbers for the Lake Jackson District Office	10/22/2014
NTL 2014-N03	eWell Permitting and Reporting System	09/29/2014

BSEE NOTICES TO LESSEES AND OPERATORS (NTLS)

NTL Number	Title	Effective Date
NTL 2014-G02	New Address for the Lake Charles District Office	09/19/2014
NTL 2014-G01-JOINT	Drilling Windows, Eastern Planning Area, Gulf of Mexico	06/01/2014
NTL 2014-N01	Elimination of Expiration Dates on Certain Notices to Lessees and Operators Pending Review and Reissuance	03/28/2014
NTL 2014-G01	New Addresses for New Orleans and Houma District Offices and Measurement Inspection Unit	02/28/2014
NTL 2013-N02	Significant Change to Oil Spill Response Plan Worst-Case Discharge Scenario	08/26/2013
NTL 2013-G03	Pollution Inspection Intervals for Unmanned Facilities	08/08/2013
NTL 2013-N01	Reimbursement for Providing Meals, Quarters, and Transportation to BSEE Representatives	03/08/2013
NTL 2012-N07	Oil Discharge Written Follow-up Reports	11/16/2012
NTL 2012-G02	Damage Caused by Hurricane Isaac	09/01/2012
NTL 2012-N06	Guidance to Owners and Operators of Offshore Facilities Seaward of the Coast Line Concerning Regional Oil Spill Response Plans	08/10/2012
NTL 2012-N04	Flaring and Venting Requests	07/15/2012
NTL 2012-N03	Flare/Vent Meter Installations	07/15/2012
NTL 2012-G01-JOINT	Vessel Strike Avoidance and Injured/Dead Protected Species Reporting	01/01/2012
NTL 2011-G01-JOINT	Revisions to the List of OCS Lease Blocks Requiring Archaeological Resource Surveys and Reports	12/29/2011
NTL 2011-N11	Subsea Pumping for Production Operations	11/21/2011
NTL 2010-N10	Statement of Compliance with Applicable Regulations and Evaluation of Information Demonstrating Adequate Spill Response and Well Containment Resources	11/08/2010
NTL 2010-N08	Meter/Tank Status Definitions	09/20/2010
NTL 2010-P06	Well Naming and Numbering Standards	06/30/2010
NTL 2010-N06-FAQ	Information Requirements for EPs, DPPs and DOCDs on the OCS	6/18/2010

SOME OF THE DETAILED REQUIREMENTS FROM THE ABOVE

BSEE regulations now have extensive requirements for well design and integrity, blowout preventer and control systems, and production safety systems. Under these safety provisions, BSEE requires, among other things:

1. Identification of the mechanical barriers and cementing practices that will be used
2. Independent third-party verification that the blowout prevention equipment is designed for the specific equipment on the rig and for the specific well design
3. Independent third-party verification that the blowout prevention equipment will operate in the conditions in which it will be used
4. A certification signed by a registered professional engineer that the casing and cementing design is appropriate for the purpose for which it is intended under the expected conditions
5. For wells that use subsea blowout prevention equipment, the inclusion of two independent barriers, including one mechanical barrier, for each annular flow path. There are also extensive requirements for the maintenance, testing and inspection of blowout prevention equipment
6. Real-time monitoring capability for deepwater and high-temperature/high-pressure drilling activities
7. Requirements for the testing and inspection of subsea well containment equipment
8. Set criteria for what constitutes a safe drilling margin and allows for alternative safe drilling margins when justified
9. Requirements for using remotely operated vehicles (ROVs) to function certain components on the BOP
10. Failure reporting for both blowout prevention systems and production safety systems
11. Improved safety and pollution prevention equipment (SPPE) design, maintenance, and repair requirements
12. Differentiating the requirements for operating dry tree and subsea tree production systems on the OCS; and
13. New requirements for firefighting systems, shutdown valves and systems, valve closures and leakage, and high-pressure/high-temperature (HPHT) well equipment

Safety Bulletins & Safety Alerts

BSEE has worked to enhance safety by increasing information sharing between the Bureau and the industry. The number of [Safety Alerts and Safety Bulletins](#) issued by BSEE rose 214% from 2016 to 2018, demonstrating BSEE's commitment to proactively analyze information and share knowledge to reduce risk.

Number	Type	Title	Date
380	Safety Alerts	Subsea Jumper Failure Leads to Leak	03/31/2020
379	Safety Alerts	Broken Compressor Heat Exchanger Causes Fire	2/28/2020
378	Safety Alerts	Unsecured Trough Drain Grating Poses Tripping Hazard	2/28/2020
377	Safety Alerts	Improperly Bypassed Safety Devices Poses Work and Environmental Hazards	2/20/2020
376	Safety Alerts	Rig Floorman Pinned by Moving Equipment	2/12/2020
375	Safety Alerts	OEM Publishes Safety Notice on Defective Shackles	1/14/2020
374	Safety Alerts	Air Compressor Flaws Lead to Engine Fire	12/11/2019
373	Safety Alerts	Lightning Strikes Threaten Aircraft on Helidecks	12/10/2019
372	Safety Alerts	Improper Use of Equipment Causes Blasting Cap Misfire	12/6/2019
371	Safety Alerts	Conductor Failures Put Workers' Safety and the Environment at Risk	12/5/2019
370	Safety Alerts	Overcharged Battery in Non-Ventilated Box	11/8/2019
369	Safety Alerts	Non-OEM Parts Were Significant Causal Factors in Two Recent Loss of Control of Traveling Block Incidents	10/25/2019
368	Safety Alerts	Inadvertent Opening of Valve Under Pressure Causes Injury	10/4/2019
21	Safety Bulletins	Multiple Arc Flash Incidents on Offshore Facilities	10/3/2019

SAFETY BULLETINS & SAFETY ALERTS

Number	Type	Title	Date
367	Safety Alerts	Saturated Glycol Handling Leads to Fire	10/2/2019
366	Safety Alerts	Dangerous Levels Of H2S Detected At Offshore Facilities	9/24/2019
20	Safety Bulletins	Use of Marine Power Cable Standards and Codes	9/19/2019
365	Safety Alerts	BSEE Identified Grating and Open Hole Hazards During Risk Based Inspections	9/12/2019
19	Safety Bulletins	Hydraulic Jack Falls During Lift, Causing Injury	8/15/2019
364	Safety Alerts	Improper Riser Tension Leads to Subsea BOP Falling Off Wellhead Mandrel and Failure of Riser Adapter	8/13/2019
363	Safety Alerts	Injury Occurs when Non-evacuated Personnel Enter Weather-restricted Area	8/1/2019
362	Safety Alerts	Poor Tag Line Awareness Leads to Multiple Incidents	7/29/2019
361	Safety Alerts	Multiple Crane Incidents during Heavy Lifting Operations	7/19/2019
360	Safety Alerts	Collision Leads to Significant Near Miss	7/11/2019
359	Safety Alerts	Unsafe Use of Pipe Wrenches Discovered during Inspection	7/10/2019
358	Safety Alerts	Dislodged Boom Pawl Pin Unnoticed by Crane Operator during Pre-use Inspection	7/9/2019
18	Safety Bulletins	Hoisting Evacuation Must Be Included in Emergency Response Plans	7/8/2019
357	Safety Alerts	Reporting Unsafe Work Conditions	7/1/2019
356	Safety Alerts	Pipeline Pigs Inadvertently Launched in Close Proximity of Personnel into Gulf Waters	6/13/2019
355	Safety Alerts	Recent Safety Notices on Deficient Harnesses and Gloves	6/10/2019
354	Safety Alerts	Fire in Smoking Area Linked to Cigarette Butt Container	6/6/2019

SAFETY BULLETINS & SAFETY ALERTS

Number	Type	Title	Date
353	Safety Alerts	Offshore Employees Fall Through Grating and Open Hole	6/4/2019
352	Safety Alerts	Boat Landing Incident	5/30/2019
351	Safety Alerts	BSEE Identifies Rig Operations Hazards during Risk Based Inspections	5/29/2019
350	Safety Alerts	Fires on Facilities Caused by Use of Outdoor Grills	5/3/2019
349	Safety Alerts	Shackle Assembles May Have Condition that Reduces the Ultimate Load of the Shackle	4/30/2019
348	Safety Alerts	Chemical Leak in Flying Lead Discovered by ROV	4/25/2019
17	Safety Bulletins	Tool Lanyards Improperly Used as Hard Hat Lanyard	4/1/2019
16	Safety Bulletins	Operator Fails to Ensure Contractor Adheres to Imperative Regulations Regarding BOP Testing	3/12/2019
347	Safety Alerts	Dropped Riser Joint Nearly Crushes Floorhand	3/8/2019
15	Safety Bulletins	Fatality Related to Restricted Access Zones	2/12/2019
345	Safety Alerts	Sprag Brake Clutch Failure Leads to Near Miss	1/25/2019
346	Safety Alerts	Fractures Found on Stainless Steel Fittings	1/25/2019
344	Safety Alerts	Chemical Containment Release	12/6/2018
14	Safety Bulletins	Explosion and Fire Gas Pig	12/6/2018
13	Safety Bulletins	Corrosion Under Insulation	12/3/2018
343	Safety Alerts	Working at Heights - Near or Over Water	11/19/2018
342	Safety Alerts	Hydraulic Boom Cylinder Failures	10/25/2018

SAFETY BULLETINS & SAFETY ALERTS

Number	Type	Title	Date
341	Safety Alerts	Fired Vessel Hazards Identified by BSEE in Risk-Based Inspections	10/2/2018
12	Safety Bulletins	Three Burn Injuries Due to External Heater Treater Fire	8/30/2018
340	Safety Alerts	Caisson Well Surface Safety Valve Actuator Explodes	8/23/2018
337	Safety Alerts	Fires Caused by Electronic Device Chargers	8/3/2018
338	Safety Alerts	Pressure Safety Element Rupture Disk Failures	8/3/2018
339	Safety Alerts	Running of Gas Sensing Line in Cable Tray Leads to Fire	8/3/2018
336	Safety Alerts	Recurring Hand Injury Incidents on the OCS	6/4/2018
335	Safety Alerts	Failure to Mitigate Known Hazards Leads to Kick	5/14/2018
333	Safety Alerts	Floating Production Platform Evacuated Amid Power Outage	5/11/2018
334	Safety Alerts	Benzene Level Exceeds Exposure Limits	5/11/2018
332	Safety Alerts	Crane Hazards Identified by BSEE in Risk Based Inspections	5/10/2018
331	Safety Alerts	Personnel Transfers by Swing Rope and Personnel Basket	4/4/2018
11	Safety Bulletins	Concerns with Epoxy Adhesives	3/12/2018
330	Safety Alerts	MSA Gravity Welder Harnesses	3/9/2018
329	Safety Alerts	Potentially Catastrophic Crane and Lifting Incidents	2/20/2018
10	Safety Bulletins	Complacency in Aviation is Everyone's Challenge	2/20/2018
328	Safety Alerts	Gas Release Hazards Identified by BSEE	1/5/2018
327	Safety Alerts	Failure to Properly Purge Compressors Leads to Explosions	12/8/2017

SAFETY BULLETINS & SAFETY ALERTS

Number	Type	Title	Date
326	Safety Alerts	Floorhand Pinned in Hazardous Area	12/5/2017
9	Safety Bulletins	Failure to Detect Proper Plug Seal	11/27/2017
325	Safety Alerts	Bolt Failures	10/18/2017
8	Safety Bulletins	Structural Failure of Crane Swing Gear Drive Housing Injures Three	9/15/2017
7	Safety Bulletins	\$2.7 Million in Damages from Faulty Sight Glass Valves	8/2/2017
6	Safety Bulletins	Dropped Moon Pool Flap Poses Threat	7/29/2017
5	Safety Bulletins	Failures in Backup Power Supply Increases Potential Severity of Multiple Incidents	7/28/2017
4	Safety Bulletins	Mud/Gas Separator Cleaning Results in Death	6/16/2017
3	Safety Bulletins	Personal Protective Equipment Limits Thermal Exposure	4/27/2017
324	Safety Alerts	Serious Incidents Associated with Pipe Racking Systems	4/6/2017
2	Safety Bulletins	KC 96 - Fatality During Pipe Handling	3/3/2017
1	Safety Bulletins	WD 105 E Safety Bulletin - Electrostatic Heater	11/10/2016
323	Safety Alerts	Subsea Flowline Failure Causes Pollution Incident and Delayed Detection Leads to Larger Spill Volume	9/12/2016
322	Safety Alerts	Helideck Obstructions and Compounding Procedural Errors Contribute to Five Near Misses on OCS	8/30/2016
321	Safety Alerts	Additional Catastrophic Incident Attributed to Ejection of Traveling Slips	7/25/2016
320	Safety Alert 320	Automatic Pipe Handling System Drops Drill Pipe	6/27/2016
319	Safety Alerts	Chemical Injection Point Corrosion Causes Production Header Failure	2/29/2016

SAFETY BULLETINS & SAFETY ALERTS

Number	Type	Title	Date
318	Safety Alerts	Connector and Bolt Failures	2/2/2016
317	Safety Alerts	Catastrophic Incident Avoided	6/12/2015
316	Safety Alerts	Aviation Near Miss	6/12/2015
315	Safety Alerts	Dynamic Positioning System Failures on Offshore Supply Vessels Engaged in Oil and Gas Operations	2/24/2015
315	Safety Alerts	Dynamic Positioning System Failures On Offshore Supply Vessels Engaged In Oil And Gas Operations In The U.S. Outer Continental Shelf	2/24/2015
314	Safety Alerts	Operator Electrocuted Trying to Charge a Battery	9/23/2014
313	Safety Alerts	Snake Grip Failure on Drill Line	7/31/2014
312	Safety Alerts	Dynamic Positioning System Failures On Vessels Other Than Mobile Offshore Drilling Units (Vessels)	5/20/2014
311	Safety Alerts	Methane Venting Hazard to Helicopter Operations	5/2/2014
310	Safety Alerts	Hydraulic Workover Unit Toppled by Waterspout	5/1/2014
309	Safety Alerts	Misuse of Beam Clamps as Ground	4/19/2014
308	Safety Alerts	Overloading Leads to Catastrophic Failure of Crane Boom	3/19/2014
307	Safety Alerts	Lower Stairwell Step Collapses Causing Injury	2/19/2014
306	Safety Alerts	Trapped Pressure Beneath a Tubing Plug Blows Work String from Well	1/19/2014
305	Safety Alerts	Explosion, Fire and Fatalities West Delta Block 32 Platform E	11/25/2013
304	Safety Alerts	Boom Hoist Wire Rope Failure Results in Fatality	2/1/2013
304	Safety Alerts	Boom Hoist Wire Rope Failure Results in Fatality	1/31/2013

SAFETY BULLETINS & SAFETY ALERTS

Number	Type	Title	Date
303	Safety Alerts	Lower Marine Riser Package (LMRP) Connector Failure	1/29/2013
302	Safety Alerts	Pressure beneath a Surface Bridge Plug Blows Work String out of Well	7/2/2012
301	Safety Alerts	Fall/Fatality during P&A/Platform Abandonment	4/13/2012
300	Safety Alerts	Unplanned Emergency Disconnect Sequence (EDS) of the Lower Marine Riser Package	3/9/2012
299	Safety Alerts	Failure to Properly Bleed Tubing Hanger Void Results in Injury	1/31/2012
298	Safety Alerts	Electric Line Failure from Corrosion Results in Injury	12/30/2011
297	Safety Alerts	Potable Water Pressure Tank Bladder Rupture	9/29/2011
296	Safety Alerts	Catastrophic Failures in Mooring Systems Possibly Put Floating Structures at Risk	5/12/2011
294	Safety Alerts	Blowout Preventer Automatic Mode (Deadman) Activation	4/14/2011
295	Safety Alerts	Compressor Fire Resulting from Separated Fuel Line Coupling	4/6/2011
293	Safety Alerts	Platform RTU Battery Charger Fire	3/21/2011
292	Safety Alerts	Synthetic Base Mud (SBM) Inadvertently Discharged Overboard	2/22/2011
291	Safety Alerts	Cutting into Process Piping Results in Pollution Event	1/10/2011
290	Safety Alerts	Plugged Flame Arrestor Results in Rupture of Oil Storage Tanks	10/14/2010
289	Safety Alerts	Failure to Follow Lock-Out/Tag-Out Procedures Results in Gas Release	9/27/2010
288	Safety Alerts	Pipe Handling Operations Result in Fatality	6/7/2010
287	Safety Alerts	Hot Bolting Fire	5/6/2010
2	Safety Alerts	Deepwater Horizon Explosion and Fire Resulting in Multiple Fatalities and Release of Oil	4/30/2010

Additional Safety Improvements

BSEE implemented initiatives to improve Bureau performance. These efforts have targeted all three of BSEE's mission areas: safety, environmental sustainability and resource conservation.

RISK-BASED INSPECTIONS

In 2018, BSEE announced a new inspection program that systematically identifies facilities and operations that have a high-risk profile. BSEE noted that:

Inspection findings and incident reports are used by BSEE to assign a risk factor score to each production facility in the Gulf of Mexico. The risk factor score is based on specific performance and risk-related information that falls into two types of risk-based inspections: "facility based" and "performance based."

The approach aligns with findings in a 2012 [Government Accountability Office \(GAO\)](#) report advising the agency to identify and evaluate offshore operations according to risk. The risk-based inspections supplement BSEE's existing National Safety Inspection Program. The OCS Lands Act authorizes BSEE to conduct annual scheduled inspections and periodic unannounced inspections of all oil and

natural gas operations. The new risk-based inspection protocol looks beyond compliance and assesses the integrity of critical safety systems on facilities and operations, those that have had multiple incidents of non-compliance or events and may need more attention. Earlier this year, BSEE conducted risk-based inspections of 40 facilities over a two-day period, based on real-time data focused on improving safety.

Using data and trend analysis to identify higher-risk operations and facilities, BSEE is able to focus inspection resources on these targets as a supplement to BSEE's existing schedule of inspections on production facilities and active drilling operations. This systematic approach led to performance-based risk inspections on 67 facilities in 2018, resulting in two safety alerts issued and 19 safety recommendations. In 2019, BSEE conducted performance-based risk inspection on 57 facilities, resulting in two safety alerts issued and 20 safety recommendations. BSEE also conducted three facility-based risk inspections in 2018 and four in 2019.

INCREASED OFFSHORE INSPECTION TIME

Beginning April 1, 2018, BSEE started significantly increasing the time that its inspectors actually spend on offshore oil and natural gas facilities. Using better technology to access electronic records maintained onshore, the agency can be more efficient in its offshore inspections while reducing helicopter operating expenses 15 percent – savings to taxpayers estimated at nearly \$20 million over 3.5 years. BSEE Director Scott A. Angelle:

This approach greatly improves our inspectors' efficiency, increasing safety oversight at OCS facilities. Our team developed a smarter, safer strategy that provides more physical inspection time offshore and reduces government costs. This makes sense for the American taxpayer and increases our ability to ensure safe operations offshore.

RISK ANALYSIS COMMITTEE

Established in December 2018, the Risk Analysis Committee advances BSEE's policy to ensure that risks to human health and the environment related to offshore activities are properly identified and reduced. This formalized effort addresses gaps identified in a 2011 report produced by a National Commission on the BP Deepwater Horizon Oil Spill and Offshoring Drilling.

REVAMPED SAFETY REPORTING

In the fall of 2016 BSEE expanded its Safe Outer Continental Shelf (SafeOCS) voluntary reporting program beyond near-miss reporting to include the confidential collection of equipment failure data – designed to further reduce the risk of offshore incidents. The program allows operators to submit equipment failure reports directly through SafeOCS. The move is part of a larger effort by the agency to engage constructively with industry and has energized efforts to increase participation in the program. Through dedicated outreach, participation has grown from the inherited rate of 4 percent to 86 percent as of June 2019, a 2,766 percent increase.

VITAL STATISTICS PROGRAM

Led by BSEE subject matter experts, vital statistics teams measure and track more than 80 unique statistics in order to identify areas needing improvement. Committees review quarterly data and meet to discuss findings from their analysis, and then recommend action steps.



TEXT MESSAGING SERVICE

The [BSEE!Safe](#) messaging service, launched in May 2019, is a first-of-its-kind direct communication between a safety regulator and front-line workers. BSEE has used the service to send 28 safety alerts and bulletins to offshore workers, via more than 51,470 text messages, sharing lessons learned and recommendations from incidents and near misses. BSEE is currently the only safety regulator in the world that delivers critical safety information directly to several thousand workers through text messaging.

BEST AVAILABLE TECHNOLOGIES

Under the Outer Continental Shelf Lands Act, Interior makes determinations regarding use of the best available and safest technologies (BAST) for exploration, development and production operations. BSEE is implementing a system to identify critical safety components, audit and publish results annually with a concurrent review of compliance with BAST goals.

RESOURCE CONSERVATION

BSEE has made important advancements in ensuring resource conservation. Recognizing that collaboration with industry spurs innovation, BSEE formed a strike team to better manage high-pressure and high-temperature (HPHT) operating conditions. The significant efforts of this team led to clear directives being published in three 2019 guidance documents, known as [Notices to Lessees](#), which set a path for HPHT projects in the Gulf of Mexico to gain BSEE approval.

U.S. COAST GUARD (USCG) ACTIONS POST MACONDO

- Published new Marine Casualty Reporting forms and a proposed rule on Marine Casualty Reporting.
- Published voluntary guidance for compliance by US-flag vessels with MARPOL Annex VI International Energy Efficiency (IEE) requirements.
- Published a final rule amending Vessel Inspection Alternatives regulations to add the International Energy Efficiency (IEE) Certificate to the list of certificates that a recognized classification society may issue on behalf of the Coast Guard.
- Published final regulations for 3rd-party testing & certification of electrical equipment in hazardous locations on newly constructed MODUs, floating OCS facilities, and vessels other than offshore supply vessels (OSVs) that engage in OCS activities.
- Published Interim Voluntary Mobile Offshore Drilling Unit (MODU) Dynamic Positioning (DP) Published Guidance for DP system guidance and recommended DP incident reporting criteria.
- Issued Safety Alert #08-14 jointly with BSEE's SA 312 on Dynamic Positioning System Failures on Vessels Other Than Mobile Offshore Drilling Units (Vessels).

- Published Interim Voluntary Guidance on Lifesaving and Fire-Fighting Equipment, Training and Drills Onboard Manned Offshore Facilities and MODUS on the OCS.
- Published a policy letter establishing Alternate Design and Equipment Standard for Floating Offshore Installations (FOI) and Floating Production, Storage, and Offloading (FPSO) Units on the U.S. Outer Continental Shelf.
- With BSEE, announced a new MOA to strengthen the working relationship between their two agencies on the management of safety and environmental protection responsibilities on the OCS. The new MOA was effective on April 30, 2013.
- Along with BSEE, signed a MOA for regulating MODUs on the OCS. Through this agreement, both BSEE and the USCG will work together to identify and coordinate responsibilities for the inspection and oversight of MODUs.
- Encouraged drilling contractors and Flag Administrations who employ foreign vessels in GOM to provide marine crews for their MODUs consistent with the interpretation in Appendix I to USCG Deepwater Horizon investigation.
- Upgraded its OCS training by sending Offshore Inspectors to training for MODUs and production units at the ABS Academy, taking advantage of similar industry provided training, and working



with BSEE to send Coast Guard Offshore Inspectors to some of their training programs.

- Established a single Officer in Charge, Marine Inspection (OCMI) to oversee marine inspection activity for all MODUs and floating OCS facilities (such as FSUs) engaged directly in, capable of engaging directly in, or being constructed to engage directly in oil and gas exploration or production in offshore waters of the Eighth Coast Guard District.
- Published a final rule on nontank vessel response plans and other response plan requirements.



- Issued an ALCOAST related to cyber security and the Marine Transportation System.
- Solicited comments on a policy to help vessel and facility operators identify and address cyber-related vulnerabilities that could contribute to a Transportation Security Incident.

NATIONAL OFFSHORE SAFETY ADVISORY COMMITTEE (NOSAC)

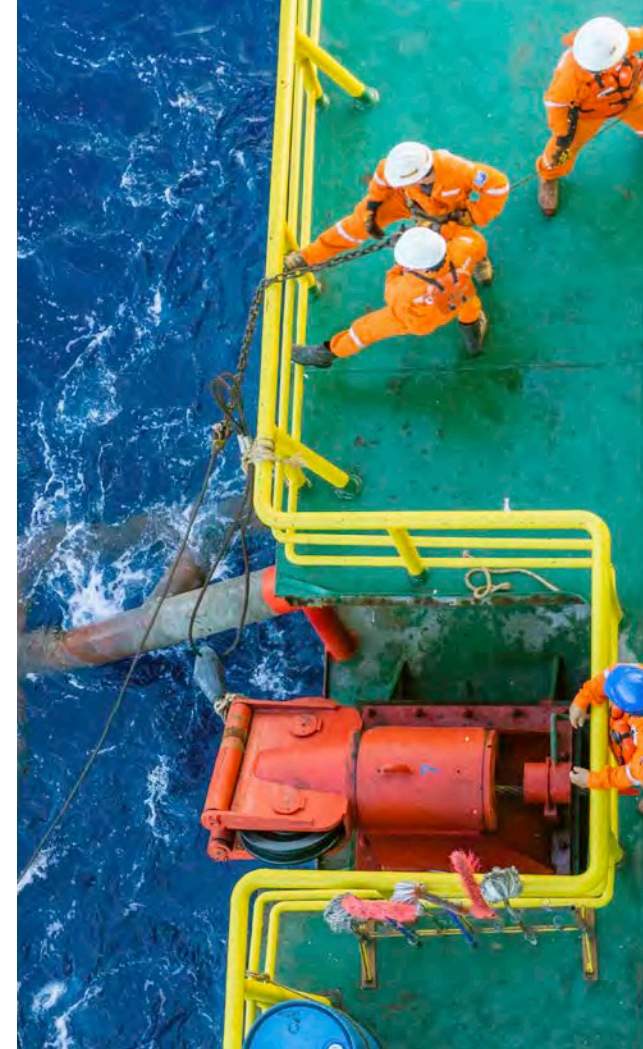
<https://homeport.uscg.mil/missions/ports-and-waterways/safety-advisory-committees/nosac/final-reports>

The USCG has a Federal Advisory Committee, tasked by the Secretary of Homeland Security to provide recommendations and advice on all matters and actions concerning activities directly involved with or in support of the exploration of offshore mineral and energy resources insofar as they relate to matters within U.S. Coast Guard jurisdiction. This advice also assists the Coast Guard in formulating the position of the United States

regarding the offshore industry in advance of International Maritime Organization meetings.

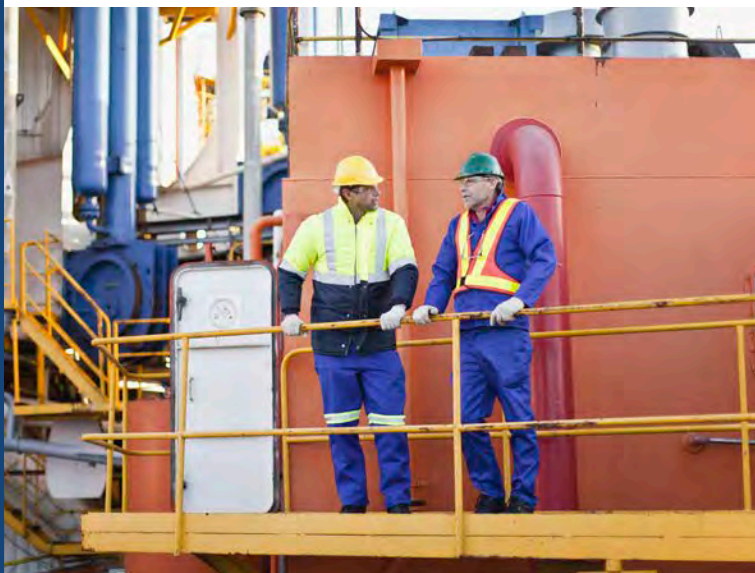
NOSAC COMPLETED REPORTS SINCE 2010

- Use of OSVs for Restoration and Recovery, September 2019
- Lessons Learned from the 2018 Hurricane Season, September 2018
- Regulatory Reform Task Statement (Production, Diving, OSVs, MODUs final reports), March 2018
- SMS for Well Intervention Vessels, February 2018
- Well Intervention Final Report, November 2016
- Towing of MODUs, MOUs and FOIs, May 2016
- Cyber Security/Cyber Risk Management Final Report, April 2016
- Safety of Persons Assigned to Lifeboats During Launching, Recovery and Maintenance Activities for MODUs and FOIs Working on the OCS, November 2015
- Commercial Diving Safety on the OCS, April 2015
- Report on Analyze and Provide Recommendation on Offshore Supply Vessel, Offshore Worker, Industrial Vessel, and Industrial Personnel Purpose and Definitions, December 2014



- Report on the ANPRM for the “Training of Personnel and Manning on MOUs and OSVs Engaged in OCS Activities”, November 2014
- Recommendations for Safety and Environmental Management Systems for Vessel on the OCS, April 2014
- Accommodation Service Vessels Engaged in OCS Activities Final Report, November 2013
- Safety Impact of Liftboat Seaservice Limitations, November 2013
- Recommended Standards for Additional Lifesaving and Fire Fighting Requirements on the OCS, November 2013

- Electrical Certification within Hazardous Locations, November 2013
- Review of Coast Guard Marine Casualty Reporting Requirements on the OCS, November 2013
- Report of the ILO Maritime Labour Convention 2006 Affecting US Flag Vessels engaged in US OCS Activities as well as those working internationally or transiting on Ocean Voyages, June 2013
- Recommendations from the Review of Mississippi Canyon Incident Reports, November 2012
- Recommended Safe Operating Standards for Personnel Operating Vessels utilizing Dynamic Positioning Systems in the OCS, February 2012
- Evacuation and Medical Treatment of Injured Divers from Remote OCS Facilities, April 2012
- Certification and Standards for Large OSVs, May 2011
- Recommendations for the Standards of Construction and Certification of Temporary Modular Quarters for use on Floating OCS Facilities and Vessels, February 2011
- Recommendations for Dynamic Positioning System Design and Engineering, Operational and Training Standards, February 2011





ADDITIONAL GOVERNMENT RESOURCES

Ocean Energy Safety Institute (OESI)

<http://oesi.tamu.edu/>

SafeOCS Reporting System

<http://safeocs.gov/>

BSEE Technology Center

<https://www.bsee.gov/what-we-do/research/tap-categories/offshore-technology-research-center>

BOEM Oil Spill Modeling Program

<https://www.boem.gov/environment/oil-spill-modeling/oil-spill-modeling-program>

BOEM Environmental Assessment

<https://www.boem.gov/environment/environmental-assessment/environmental-assessment>

BOEM Environmental Studies

<https://www.boem.gov/environmental-studies>

