

JOINT INDUSTRY OFFSHORE OPERATING PROCEDURES
TASK FORCE,
JOINT INDUSTRY OFFSHORE EQUIPMENT TASK FORCE,
JOINT INDUSTRY SUBSEA WELL CONTROL AND
CONTAINMENT TASK FORCE, and
JOINT INDUSTRY OIL SPILL PREPAREDNESS AND
RESPONSE TASK FORCE

EXECUTIVE SUMMARY
March 13, 2012

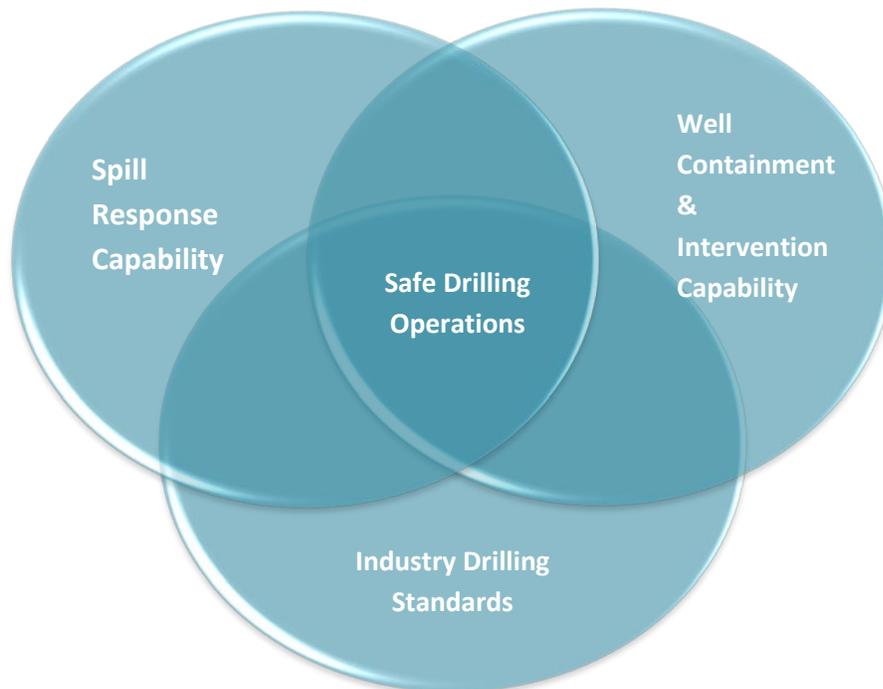
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Executive Summary

INTRODUCTION

In response to the Gulf of Mexico (GOM) Macondo incident, the oil and gas industry (Industry) assembled four Joint Industry Task Forces (JITFs) to focus on critical areas of GOM offshore activity: the Joint Industry Offshore Operating Procedures Task Force (Procedures JITF), the Joint Industry Offshore Equipment Task Force (Equipment JITF), the Joint Industry Subsea Well Control and Containment Task Force (Subsea JITF), and the Joint Industry Oil Spill Preparedness and Response Task Force (OSPR JITF). Teams were composed of members of the American Petroleum Institute (API), International Association of Drilling Contractors (IADC), Independent Petroleum Association of America (IPAA), National Ocean Industries Association (NOIA), and the United States Oil and Gas Association (USOGA). Sessions began in early spring of 2010 to provide recommendations to the United States (US) Department of the Interior (DOI) in the areas of prevention, intervention and oil spill response. 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 Procedures, Equipment, and Subsea JITFs, as they are called, all issued final reports in March of 2012 while the OSPR JITF released a progress report in November of 2011 and has projects lasting into 2015. The ultimate goal for these JITFs is to improve Industry drilling standards to form comprehensive safe drilling operations, well containment and intervention capability, and oil spill response capability; not only through evaluation and revision of Industry guidelines and procedures, but also active engagement with regulatory processes.

Figure 1: Restoring confidence in deepwater drilling operations through comprehensive improvements to well containment and intervention capability, spill response capability, and drilling standards.



The JITFs worked with the trade associations, DOI’s Bureau of Safety and Environmental Enforcement (BSEE) and Bureau of Ocean Energy Management (BOEM), US Coast Guard (USCG), US Environmental Protection Agency (EPA), National Oceanic and Atmospheric Administration (NOAA), National Response Team (NRT), the independent presidential commission (National Commission on the *Deepwater Horizon* Oil Spill and Offshore Drilling), the Chemical Safety Board (CSB), the National Academy of Engineering (NAE), members of Congress, and others as they considered the Macondo incident and potential changes in Industry oversight. The trade associations will continue to work with the above organizations. Table 1 shows the timeline the JITFs followed to quickly and effectively develop and implement recommendations.

Table 1: Timeline of Overarching Events

Date	Action Item	Procedures	Equipment	Subsea	OSPR
May 17, 2010	Provided initial recommendations to DOI.	X	X		
June 21, 2010	Provided DOI a list of concerns/questions and clarifications on the May 27 <i>Increased Safety Measures for Energy Development on the Outer Continental Shelf</i> ¹ (Safety Report) and Notice to Lessees (NTL) <i>Increased Safety Measures for Energy Development on the Outer Continental Shelf</i> ² (NTL No. 2010-05).	X	X		
June 25, 2010	Provided JITF position on resumption of drilling to DOI.	X	X		
July 6, 2010	Preliminary recommendations delivered to BOEMRE.			X	X
September 3, 2010	Interim recommendations completed and delivered to BOEMRE, implementation began.			X	X
December 2010	Provided comments to DOI on their <i>Oil and Gas and Sulphur Operations in the Outer Continental Shelf–Increased Safety Measures for Energy Development on the Outer Continental Shelf Interim Final Rule</i> ³ (Interim Final Drilling Safety Rule).	X	X	X	X
April 2011	Provided preliminary Industry response to the DNV BOP Report.		X		
November 2011	Progress Report released.				X
February 2012	Final Report Released.	X	X	X	N/A

¹ <http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=33598>

² <http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2011NTLs/11-n05.pdf>

³ <http://www.boemre.gov/federalregister/PDFs/AD68FEDREG1014.pdf>

SUMMARY OF JITFs

Joint Industry Offshore Operating Procedures Task Force

The Procedures JITF reviewed critical processes associated with drilling and completing deepwater wells to identify gaps between existing practices and regulations and Industry best practices. Their recommendations were intended to move Industry standards to a higher level of safety and operational performance. Their recommendations resulted in either revision or new development of API guidelines, which are considered Industry best practices for US oil and gas operations.

In July 2010, the Procedures JITF held a kick-off meeting to outline initial content for the Well Construction Interface Document (WCID) guidelines. The WCID will link—or act as a bridge between—the drilling contractor's Health, Safety, and Environmental (HSE) plan and the operator's Safety and Environmental Management System (SEMS), and will address safety and risk management considerations on a well-by-well basis. The WCID is expected to be publicly available in 2012.

API Recommended Practice (RP) 65—Part 2 *Isolating Potential Flow Zones During Well Construction*, was first published in May 2010. BSEE incorporated this document by reference in the *Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Increased Safety Measures for Energy Development on the Outer Continental Shelf Interim Final Rule*⁴ (Interim Final Drilling Safety Rule) in October of the same year. API then revised the document based on 1) lessons learned from the Macondo incident; and 2) alignment with the planned *Deepwater Well Design and Construction* RP (discussed below). The revisions resulted in the API RP becoming API Standard 65-Part 2, second edition⁵. The Standard was published in December 2010. Industry is working with BSEE to update the incorporation by reference to the second edition.

In June 2010, an API work team held a kick-off meeting to outline initial content for the new API RP 96 *Deepwater Well Design and Construction*. This document provides well design and operational considerations to safely design and construct deepwater wells with maximum reliability. There was coordination with the Subsea JITF and the API Standard 53 workgroup to ensure their recommendations were addressed in the document as well. The completed document is expected to be finalized in 2012 and will be made available to the public.

To see the Procedures JITF (in conjunction with the Equipment JITF) final report, including original recommendations and their current status, please see the *Joint Industry Offshore Operating Procedures Task Force and Offshore Equipment Task Force Final Report on Industry Recommendations to Improve Offshore Operating Procedures and Equipment*⁶.

Joint Industry Offshore Equipment Taskforce

The Equipment JITF reviewed current BOP equipment designs, testing protocols and documentation. Their recommendations were designed to close any gaps or capture improvements in these areas. After submitting its recommendations, the Equipment JITF formed three subgroups to evaluate information regarding BOP shearing capabilities, BOP acoustics systems, and BOP/ROV interface. These subgroups each produced white papers regarding their topics in January of 2011.

Based on the Equipment task force's recommendations, an API work team began development on the fourth edition of API RP 53 *Recommended Practices for Blowout Prevention Equipment Systems for*

⁴ <http://www.boemre.gov/federalregister/PDFs/AD68FEDREG1014.pdf>

⁵ http://www.api.org/~media/Files/Policy/Exploration/Std_65_2_e2.ashx

⁶ <http://www.api.org/oil-and-natural-gas-overview/exploration-and-production/offshore/api-joint-industry-task-force-reports.aspx>

Drilling Wells. This edition will be updated to a Standard and is likely to be published early in 2012. Meanwhile, the third edition is referenced in the Interim Final Drilling Safety Rule for Documentation Requirements for BOP inspections and maintenance.

To see the Equipment JITF (in conjunction with the Procedures JITF) final report, including original recommendations and their current status, please see the *Joint Industry Offshore Operating Procedures Task Force and Offshore Equipment Task Force Final Report on Industry Recommendations to Improve Offshore Operating Procedures and Equipment*⁷.

Joint Industry Subsea Well Control and Containment Task Force

The Subsea JITF reviewed technologies and practices for controlling the release of oil from the source of a subsea well where there has been a loss of control. These include equipment designs, testing protocols, research and development (R&D), regulations and documentation to determine if enhancements were needed. The JITF identified five key areas of focus for GOM deepwater operations:

- Well containment at the seafloor;
- Intervention and containment within the subsea well;
- Subsea collection and surface processing and storage;
- Continuing R&D; and
- Relief wells.

The Subsea JITF focused primarily on potential operational scenarios after a well blowout has occurred. Consideration was also given to containment of hydrocarbons that may leak from subsea production system equipment (e.g. subsea production well) and casing stubs at the seafloor. The task force did not review blowout preventers (BOPs), Emergency Disconnect Systems (EDS), autoshear systems, deadman systems, or ROV/BOP interfaces (pumps and hot stab). These items were reviewed under the Equipment JITF.

The Subsea JITF developed 29 recommendations on specific steps to enhance the Industry's subsea control and containment capability, including 15 immediate action items.

One of the first recommendations implemented was to provide near-term response capability for well containment. This was achieved through the establishment of collaborative containment companies (such as Marine Well Containment Company (MWCC) and Helix Well Containment Group (HWCG)). These types of companies and cooperatives house the equipment and technology needed to quickly and effectively respond to events involving loss of containment at the well head. Having these companies on retainer not only increases containment response capabilities, but also ensures Industry compliance with BSEE's NTL No. 2010-N10, *National Notice to Lessees and Operators of Federal Oil and Gas Leases, Outer Continental Shelf*⁸. In many cases, these companies are responsible for implementing the recommendations made by the JITF.

In addition, over the summer of 2011 the JITF began work on a Recommended Practice (RP) for containment certification for wells with subsea BOP and BOPs on floating structures and a RP for capping stacks. Both RPs will incorporate the recommendations as appropriate.

⁷ <http://www.api.org/oil-and-natural-gas-overview/exploration-and-production/offshore/api-joint-industry-task-force-reports.aspx>

⁸ <http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2010NTLs/10-n10.pdf>

To see the Subsea JITFs final report, complete with original recommendations and their current status, please see the *Joint Industry Subsea Well Control and Containment Task Force Final Report on Industry Recommendations to Improve Subsea Well Control and Containment*⁹.

Joint Industry Oil Spill Preparedness and Response Task Force

Following the September 3, 2010, OSPR JITF preliminary recommendations report¹⁰, the API Oil Spill Preparedness and Response Subcommittee (OSPRS) convened to address the recommendations made by the JITF. The OSPRS was tasked with leading Industry efforts to develop and implement plans that addressed the report recommendations while staying abreast of related initiatives. The OSPRS has maintained linkages to international organizations (e.g., Oil and Gas Producers-Global Industry Response Group (OGP-GIRG) and the Arctic Response Technology Joint Industry Program (JIP)), well containment companies, Oil Spill Removal Organizations (OSROs), and academic institutions. The subcommittee also reviewed and commented on emerging materials related to oil spill response, such as the Presidential Commission Findings, Incident Specific Preparedness Review, draft NRT subsea dispersant guidance, BOEM/BSEE planning guidance, and a number of scientific reports (e.g., Operational Science Advisory Team Report). The OSPRS is supported in its efforts by the API Oil Spill Preparedness and Response Workgroup (OSPRW) made up of technical personnel from the various participating companies.

The OSPRS spent several months developing and prioritizing project plans to address each preliminary recommendation, and subsequently received approval and Industry funding commitment for a multi-year work program. The OSPRS divided the recommendations into seven categories, or work streams, as outlined in the original report, specifically:

- Planning
- Dispersants
- Shoreline Protection and Cleanup
- Oil Sensing and Tracking
- In-Situ Burning
- Mechanical Recovery
- Alternative Technologies

Within each category there are a number of projects being worked by individual project teams. These individual project teams are led by a member of the OSPRS or OSPRW. The teams have developed scoping documents and project plans complete with milestones and are in the process of implementation. In some cases projects have endorsed budgets for one or more years to allow access to contractors/consultants or other support services to complete studies, research, workshops, etc.

These projects envision collaboration among Industry, government, and academia. Some project teams will carry out large-scale research studies while other teams will assume a monitoring and engagement role if similar initiatives are being conducted by other entities (such as the Federal government).

For the full progress report complete with the original recommendations as well as an update of each project, please see *The Joint Industry Oil Spill Preparedness and Response Task Force Progress Report on Industry Recommendations to Improve Oil Spill Preparedness and Response*¹¹.

⁹ <http://www.api.org/oil-and-natural-gas-overview/exploration-and-production/offshore/api-joint-industry-task-force-reports.aspx>

¹⁰ http://www.api.org/Newsroom/upload/Oil_Spill_Response_3_SEP_2010_V2.pdf

¹¹ <http://www.api.org/oil-and-natural-gas-overview/exploration-and-production/offshore/api-joint-industry-task-force-reports.aspx>

CONCLUSION

The Macondo incident introduced new efforts to identify and develop improvements in offshore equipment, operations, well design, well control equipment targeted at prevention and containment and new procedures and tools for responding to oil spills. The JITFs continue to evaluate and improve on both new and current tools. Effective evaluations are the result of JITF members working cooperatively among Industry partners and actively engaging with regulatory agencies. JITF members continue to commit their time and expertise to create a supportive environment for shared learning and consensus building among Industry and government. This cooperation resulted in the improvements to prevention, well control, and oil spill preparedness and response. Continued collaboration with regulatory agencies is imperative to these efforts. Industry looks forward to its continued engagement with DOI and other agencies to:

- Pursue the adoption of the JITFs' recommendations;
- Participate in the rulemaking processes; and
- Pursue incorporation of new and updated Industry guidelines into the Code of Federal Regulations.

Industry continues its efforts to identify and drive improvements, not only through JITF efforts, but across a wide variety of areas, such as:

- The Center for Offshore Safety, which was recently created by Industry to serve as the focal point for deepwater operators to work together to enhance offshore operations. The Center will initially focus on the SEMS of companies operating in the offshore deepwater, and will include audits and certifications of SEMS programs of the members of the Center by independent third party auditors. The Center's primary objectives will be enhancing and continuously improving Industry's safety and environmental performance, and providing a platform for Industry collaboration and engagement with third party stakeholders including Federal agencies. The Center is located in Houston and has a governing board representing a diverse cross-section of the Industry.
- The Blowout Risk Assessment (BORA) JIP, which intends to develop a Comparative Risk Assessment to reduce overall well blowout risk through researching well design, execution and containment technology.
- Supporting the BSEE Workshop, *Effects of Water Depth on Offshore Equipment and Operations*, to promote discussion between regulators and Industry representatives. The Workshop included a blend of technical presentations and interactive peer review discussions to help 1) identify improvements to offshore safety and technologies over the past year; 2) inspire new ideas; and 3) help focus regulatory direction. It was conducted by the Argonne National Laboratory on November 1-2, 2011.
- OSROs have dedicated substantial time and resources to improving oil spill response capabilities through expanding and optimizing the various oil spill response options.
- Industry engagement with International efforts:
 - OGP initiatives such as the JIPs for Oil Spill Response and Arctic Spill Response Technology. The Oil Spill Response JIP builds off the work described in the OSPR Progress Report with broader applicability to international concerns. The Arctic Spill Response JIP brings together Industry experts to evaluate and improve, when applicable, oil spill preparedness and response in icy waters.
 - The Oil and Gas UK Oil Spill Prevention and Response Advisory Group (OSPRAG), which formed after the DWH incident to advise the United Kingdom's oil spill response efforts.

It was comprised of drilling contractors, operators, regulators and trade unions, and provided a focal point for the sector's review of Industry's practices. They issued a final report¹² in September 2011 that included recommendations the UK's Industry is adopting.

- Co-sponsoring the Wendy Schmidt Oil Cleanup X Challenge; an X-Prize competition for innovators to surface new ideas for oil spill response.
- Sponsoring the International Oil Spill Conference, which provides an opportunity to promote knowledge and allow manufacturers to show their wares, etc. from across the globe.

Along with other initiatives, these activities assist in creating a model safety program in the GOM and beyond for well operations crews and the environment. Active participation from and coordination with the public sector, academia, and other stakeholders has been fundamental to turning initial recommendations into genuine plans of action and enhanced safety guidelines. Industry remains committed to making continued progress in collaboration with a wide range of stakeholders. Industry looks forward to further advance Industry's prevention, containment, preparedness and response capabilities and to work closely with government agencies to achieve common objectives.

¹² <http://www.oilandgasuk.co.uk/cmsfiles/modules/publications/pdfs/EN022.pdf>