

Center for Offshore Safety
Written Testimony - House Natural Resources Committee
Innovations in Safety Since the 2010 Macondo Incident
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America's offshore oil and natural gas industry is safer than before, but our goal will always be zero accidents and zero spills.

A significant enhancement in safety and environmental protection in the oil and natural gas industry post-Macondo was the creation and on-going work of the Center for Offshore Safety (COS). COS was created by the industry for the industry, and is devoted entirely to continually assessing, learning about, and improving the safety and environmental management systems (SEMS) implemented by operators in the OCS.

SEMS has the following benefits:

- Shifts execution and oversight strategy from a prescriptive rule-based approach to one that is proactive and performance-based

- Manages safety with the same principles of planning, organization, implementation, and controls that we expect from other business functions
- Drives both Process and Personal accountability up and down the organizational structure

SEMS requires mechanisms that:

- 1- Specify what is needed for safe operation
- 2- Check to see that these specifications are being followed
- 3- Build competency by developing individual knowledge and skill

COS is entirely focused on Safety and Environmental Management Systems (SEMS) and how their effectiveness can be continually evaluated and enhanced.

SEMS is intended as an active-learning safety and environmental management system that establishes and manages barriers, takes a systematic approach to all parts of offshore safety, has active monitoring via safety performance and other indicators, uses independent verification via third-party auditors, and focuses continually on operationalizing and enhancing safety and environmental management. Most significantly, SEMS focuses on the importance of leadership and the interaction of management with staff to deliver a positive safety culture.

The COS mission is promoting the highest level of safety for offshore operations through effective leadership, communication, teamwork, use of disciplined management systems and independent third-party auditing and certification. Sharing data and lessons learned throughout the industry is an essential part of the work COS does to continually enhance safety.

Through the COS, industry members are committed to improving SEMS performance by subscribing to the following principles:

- Industry leaders demonstrate a visible commitment to safety
- Operators, contractors, and suppliers work together to create a culture of safety
- Decision making at all levels will not compromise safety. Safety processes, equipment, training and technology undergo continual examination and improvement
- Members share learnings and apply industry standards, good practices and promote continual improvement

COS broadly represents the oil and natural gas business on the US Outer Continental Shelf with members from all aspects of the upstream offshore oil and natural gas industry including operators, drilling contractors, equipment manufacturers and service

contractors. The COS has a full-time staff that works in conjunction with industry task groups to address specific SEMS issues. In addition, COS has a governing board made up of senior management of the industry member companies.

The COS is responsible for:

- Assuring that third-party Audit Service Providers and their auditors meet the goals, objectives and requirements for conducting SEMS audits
- Compiling and analyzing SEMS data and other safety metrics to find areas for enhancement
- Creating Good Practices to close gaps found through the safety data analysis
- Coordinating COS-sponsored functions designed to facilitate sharing and learning processes regarding SEMS and good practices
- Identifying and promoting opportunities for industry to continually improve SEMS and safety
- Developing outreach programs to facilitate communicating with government and external stakeholders regarding SEMS

COS has developed processes and documents in the following areas:

- COS SEMS Toolkit – SEMS Audit Protocols, Operator-Contractor interface documents, staff Knowledge & Skills worksheets, and other products for SEMS.
- SEMS Audit Service Provider (ASP) Documents, protocols, and guides
- COS Auditor Qualification and Training, SEMS Certification for Operators and Contractors, and ASP Accreditation Documents – Suite of documents that outline the qualification and training requirements for third-party auditors performing COS SEMS audits, COS SEMS certification requirements, accreditation requirements for ASP performing third-party audits and COS Standard Audit Report worksheets and template.
- Skills and Knowledge Management System Guideline (SKMS) - Tools and techniques to provide industry with a common process for the verification and development of employee and contractor skills and knowledge
- Leadership Site Engagement - Good practice guidance for senior managers and leaders to demonstrate visible safety and environmental commitment during visits to offshore operating sites, as well as enhancing accountability and safety culture

COS is actively working in the following areas:

- Audit Service Provider Accreditation - Develop an enhanced set of COS-endorsed standards for accrediting Audit Service Providers and their auditors to support the COS SEMS certification program
- SEMS Certification Program-Operator Certification - Certification of operator SEMS programs via accredited third-party audit.
- SEMS Certification Program-Contractor Certification – third-party SEMS Certification of drilling contractors and offshore service/supply companies in order to provide assurance to operators and regulators that a system is in place which meets applicable requirements and demonstrates contractor workers have skills and knowledge to follow safe work practices.
- Safety Performance Indicators (SPI) Program – Clearly defined indicators to evaluate safety performance and aid in identifying safety trends. This includes new leading indicators of SEMS effectiveness.

- Learning from Incidents (LFI) Program – A process and methodology to identify, assess and communicate high value learning incidents to promote cross-industry learning. This includes identifying SEMS elements that were ineffective and contributed to the incident and how the possibility of the incident will be minimized in the future.
- Information and Knowledge Management – An information and knowledge management framework to gather, manage and share information to enable the industry to continually improve SEMS performance.
- COS Safety Events - Plan, develop and coordinate annual COS Safety Forum, Offshore Technology Conference Technical Sessions, SEMS Audit Workshops, and other events to facilitate sharing knowledge and promoting opportunities to continually improve SEMS and safety.

COS has recently published its first Annual Performance Report detailing the initial round of data and lessons learned from the Safety Performance Indicator Program, Learning from Incidents Program and SEMS audits described above. This report is available via the COS website.

The oil and natural gas industry is committed to operating in a safe and responsible manner while minimizing our impact on the environment. Protecting the health and safety of our workers, our contractors and our neighbors is a moral imperative and core value of our industry.

No incident is acceptable. Our industry takes every incident seriously. Continued vigilance is essential in helping to prevent future incidents.

In the five years since the Macondo incident, the oil and natural gas industry has methodically examined every aspect of offshore safety measures and operations to identify potential improvements in safety management. COS was established by the industry to ensure that this continues and is effective, that there is a single group exclusively focused on SEMS, and that there is a group responsive to supporting a culture of safety.

We worked with the U.S. Department of Interior, the Presidential Oil Spill Commission, other Government Organizations, and industry experts as we developed the mission, programs, and tools of COS.

But COS did not start from scratch. Offshore exploration and production has long been focused on safety and delivering remarkably safe and successful technology and operations. The industry is committed to ensuring that SEMS is continually enhanced and that the COS organization is in place to focus on this and share industry knowledge of SEMS and safety.

Despite industry's history of safety dedication and performance, it was understood that the balance between personnel safety and prevention of major incidents had to be enhanced and the focus on continual SEMS learning, as well as operationalizing those learnings, must be maintained. The oil and natural gas industry has dedicated the past five years to using the lessons learned from Macondo to enhance safety and operational practices.

Our strong culture of safety continues to grow along with advances in technology and industry standards. So long as there is any room for improvement, our work at COS will never be complete. This is our livelihood, and our work is critical to America's new energy renaissance.

Every incident is both one too many and a powerful incentive for COS and industry to improve SEMS, the learning process, skills and knowledge, operating procedures and standards, and effectiveness

measures and audits. Our thoughts will always remain with the families of all those who lost their lives in this tragic accident. And the industry, and the industry through COS, stands ready to continue to work with government and regulators to improve safety.