



## U. S. Chemical Safety and Hazard Investigation Board

# RECOMMENDATION STATUS CHANGE SUMMARY

<b>Report:</b>	Macondo Blowout and Explosion
<b>Recommendation Number:</b>	2010-10-I-OS-R1
<b>Date Issued:</b>	June 5, 2014
<b>Recipient:</b>	Bureau of Safety and Environmental Enforcement
<b>New Status:</b>	Closed – Acceptable Alternative Action
<b>Date of Status Change:</b>	June 18, 2025

### Recommendation Text:

*Augment 30 C.F.R §250 Subpart S to require the responsible parties, including the lessee, operator, and drilling contractor, to effectively manage all safety critical elements (SCEs)—technical, operational, and organizational—thereby ensuring their effective operation and reducing major accident risk to As Low As Reasonably Practicable (ALARP). At a minimum, require the following improvements:*

- a. Written identification of all safety critical elements for offshore operations through hazard analysis. This list will be made available for audits and inspections performed by the responsible parties, external entities (e.g., independent competent parties, third-party auditors), and the regulator, and it will be shared among the lessee, operator, and drilling contractor. Identifying all safety critical elements shall ensure the establishment and maintenance of effective safety barriers to prevent major accidents;*
- b. Documented performance standards (as defined in Section 5.2 of the CSB Macondo Investigation Report Volume 2) describing the required performance of each SCE, including its functionality, availability, reliability, survivability, and interactions with other systems;*
- c. Augmentation of 30 C.F.R §250.1916 to include requirements for all responsible parties, including contractors, to conduct monitoring for continuous active assurance of all identified SCEs through each SCE's lifecycle (as described in Section 5.0 of the CSB Macondo Investigation Report Volume 2);*
- d. Documented independent verification scheme for the identified SCEs reported to and subject to review by the regulator (as described in Section 5.5 of the CSB Macondo Investigation Report Volume 2), where:*
  - 1. the independent party meets BSEE criteria that guarantees its competence and independence from the company or facility for which it is providing verification;*
  - 2. the independent verification occurs prior to commencement of the offshore drilling or production activity and periodically, as defined by BSEE;*
  - 3. all resulting assessments of the independent verification activities will be tracked in a formal records management system; and*

4. *corrective action shall be taken to address negative verification findings and non-compliance. Verified noncompliance shall be tracked by the responsible party as a process safety key performance indicator and be used to drive continuous improvement.*

## **Board Status Change Decision:**

### **A. Rationale for Recommendation**

On April 20, 2010, a multiple-fatality incident occurred at the Macondo oil well approximately 50 miles off the coast of Louisiana in the Gulf of Mexico during temporary well-abandonment activities on the Deepwater Horizon (DWH) drilling rig. Control of the well was lost, resulting in a blowout which is the uncontrolled release of oil and gas (hydrocarbons) from a well. On the rig, the hydrocarbons found an ignition source. The resulting explosions and fire led to the deaths of 11 individuals; serious physical injuries to 17 others; the evacuation of 115 individuals from the rig; the sinking of the Deepwater Horizon; and massive marine and coastal damage from approximately 4 million barrels of released hydrocarbons.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) produced a four-volume investigation report and issued 16 recommendations; 11 of those recommendations were issued to the Department of the Interior's (DOI) Bureau of Safety and Environmental Enforcement (BSEE), the offshore industry regulator. As a part of the investigation, the CSB looked at the regulatory environment and the role that BSEE plays in it. This status change summary is specific to CSB Recommendation No. 2010-10-I-OS-R1 (R1) from volume two of the investigation report.

### **B. Response to the Recommendation**

DOI ensured responsiveness specific to the Macondo recommendations. In addition to correspondence, the CSB and BSEE have had several electronic and in-person meetings to discuss all of the Macondo recommendations including R1. BSEE has implemented several rulemakings and risk identifying projects since the Macondo incident; all with the goal of increasing safety and preventing environmental damage in the offshore oil and gas industry.

### **C. Board Analysis and Decision**

In discussions between the CSB and BSEE it became clear that both the current U.S. regulatory framework and the substantial size of the offshore oil and gas industry make the implementation of R1 infeasible by BSEE. Additionally, it could not be substantiated that the regulatory changes necessary to establish the more robust regulatory approach would result in a higher level of overall safety or that BSEE's Safety and Environmental Management System (SEMS) (a post-Macondo regulatory requirement), if properly implemented, would not have prevented the Macondo incident.

However, BSEE has done a tremendous amount of work toward addressing the intent of R1. BSEE implemented several initiatives following the Macondo incident, several of which address a majority of the objectives envisioned by the Board and provide an equivalent level of safety.

The Center for Offshore Safety, (COS)<sup>1</sup>, one of BSEE's primary stakeholders, has also taken several actions to implement this requirement on behalf of BSEE that augment their SEMS requirements. The initiatives and actions by BSEE and COS include rulemakings, developing guidance, incorporating by reference many standards and guidance documents, and drastically improving both their inspection and auditing programs.

Upon comprehensive review, the Board concurs that BSEE, as well as COS, developed and implemented acceptable alternatives to the original recommendation language that meet the objectives or a majority of the objectives envisioned by the Board. As such, the Board voted to change **CSB Recommendation No. 2010-10-I-OS-R1** to: **"Closed – Acceptable Alternative Action."**

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<sup>1</sup> COS fact sheet: [https://www.centerforoffshoresafety.org/-/media/COS/COSReboot/COS\\_Fact%20sheet.pdf](https://www.centerforoffshoresafety.org/-/media/COS/COSReboot/COS_Fact%20sheet.pdf)