



U. S. Chemical Safety and Hazard Investigation Board RECOMMENDATION STATUS CHANGE SUMMARY

Report:	Macondo Blowout and Explosion
Recommendation Number:	2010-10-I-OS-R14
Date Issued:	April 20, 2016
Recipient:	Department of the Interior - Bureau of Safety and Environmental Enforcement
New Status:	Closed—Acceptable Alternative Action
Date of Status Change:	October 26, 2021

Recommendation Text:

Expand the offshore safety regulatory program that collects, tracks, and analyzes safety performance indicators from industry to further influence industry efforts in reducing major accident risks to ALARP. At a minimum, this program shall:

- a. Require the reporting of safety indicator data by all responsible parties, as defined in R11(a);*
- b. Emphasize the greater preventive value of using leading indicators to actively monitor the health and performance of major accident safety barriers and the management systems meant to ensure their effectiveness, and work with industry to develop leading indicators that are measurable, actionable, normalized across industry, and that occur with sufficient frequency to allow for meaningful trending and analysis at the facility and corporate levels;*
- c. Augment current reporting requirements to include leading safety performance indicators;*
- d. Use the safety performance indicator data to:*
 - 1. identify industrywide, companywide, and facility-specific safety trends and deficiencies;*
 - 2. set annual process safety goals or targets for the industry, company and/or facility, as appropriate, based upon those identified safety trends and deficiencies;*
 - 3. issue, at a minimum, annual reports that publicly communicate those trends, deficiencies, targets, and goals; and*
 - 4. determine future appropriate allocations of BSEE resources and the prioritization of BSEE inspections;*
- e. Include use of significant lagging indicators data (including those already mandated by 30 C.F.R. 250.188(a) and (b), such as major events like explosions, fires, gas releases, fatalities, INCs) as qualification criteria in the lease-approval and permit-to-drill decision-making processes by the regulator.*

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 others¹; 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 Bureau of Safety and Environmental Enforcement (DOI-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-R14 (R14) from volume four of the investigation report.

B. Response to the Recommendation

As a result of the May 5, 2016, initial recommendation letter to DOI that included R14, BSEE responded via letter on June 14, 2016, that DOI had directed BSEE to address them. As such, the recipient is referred to as DOI-BSEE, however, the evaluation is directed at BSEE actions. BSEE then initially responded on March 22, 2017, stating that the intent or primary objectives of recommendations R14 had already been completed. The CSB and BSEE had a significant amount of communication and meetings to discuss the information needed to close all of BSEE's recommendations, including R14.

On August 14, 2020, BSEE provided a detailed response of their actions to implement R14. Upon request, BSEE provided additional amplifying information on October 16, 2020 further defining and describing their actions. Since the Macondo tragedy BSEE consolidated several information streams into an 'umbrella' program called SafeOCS, which is BSEE's primary *"...program that collects, tracks, and analyzes safety performance indicators from industry to further influence industry efforts in reducing major accident risks..."* Instead of ALARP, BSEE requires lessees, operators, and others to use engineering practices that reduce safety risks to the "lowest level practicable" which is a similar, non-safety case specific, risk-reduction target. The information from SafeOCS is continually analyzed and is available to the public. In addition to SafeOCS, BSEE gathers performance indicator data from industry for decision making purposes as a part of several permit/approval application processes as well as through information reporting requirements. BSEE has established an agreement with the U.S. Department of Transportation's Bureau of Transportation Statistics to provide safety trend analysis from the data collected industry wide to inform BSEE's risk-based inspections, specific to targeting companies, facilities, and individual pieces of equipment which in turn establishes safety goals for the industry. Regarding the last requirement of the recommendation specific to "lease-approval," BSEE does not have lease-approval authority, therefore, this part of the recommendation does not apply to this recommendation recipient.

¹ The injury numbers presented here match those reported to the US Coast Guard as required by 33 C.F.R. § 146.30 on form CG-2692 Report of Marine Accident, Injury or Death. The 17 physical injuries represented here reflect the individuals that received immediate hospitalization as a result of the incident.

The actual number of injured from the Macondo incident is somewhat ambiguous, as a number of additional individuals sought medical treatments in the weeks following the blowout. In December 2014, Transocean noted 63 bodily injury claims pending in the state and federal courts in Louisiana and Texas.

C. Board Analysis and Decision

Based upon the information above, the Board determined that BSEE's actions met the intent of the recommendation. Consequently, the Board voted to change the status of CSB Recommendation No. 2010-10-I-OS-R14 to "Closed – Acceptable Alternative Action."