



ISSUE MEMORANDUM

TO: Brian Salerno, Director

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FROM: Doug Morris, Chief, Office of Offshore Regulatory Programs

SUBJECT: SEMS Program Summary—First Audit Cycle (2011-2013)

I. Introduction

It has been approximately four years since BSEE first promulgated regulations that required regulated parties on the OCS to develop and implement Safety and Environmental Management Systems (SEMS). This performance-based program, the cornerstone in BSEE's move toward a hybrid regulatory approach, is designed to help drive the safety and environmental performance of OCS oil and gas operators and contractors beyond attaining full compliance to BSEE regulations. The BSEE SEMS program, which is modeled after international programs for quality, safety, and environmental management systems, incorporates the elements of API RP 75 to focus both industry's and BSEE's attention, resources, and initiatives on recognizing and managing the impacts of human behavior, organizational structure, leadership, standards, processes and procedures, as well as, an underlying safety culture to promote continuous improvements in safety and environmental performance.

November 15, 2013, marked the end of the first SEMS Audit Cycle. Of the regulated operators, 86% were able to successfully demonstrate through a formal audit that the required SEMS program was in place and being implemented. Only 3 operators, representing approximately 4% of the OCS operators, are still out of compliance. These companies remain under enforcement orders.

The primary objective of our first two years was to establish and drive the implementation of BSEE's SEMS expectations within the regulated community. This was accomplished by requiring the operators to perform audits of their SEMS programs. BSEE used the audits to 1) determine whether the operators had in fact developed (and implemented) a SEMS and 2) to set a baseline for measuring progress, demonstrating a central theme of a management system: continuous improvement.

The SEMS audits were intended to go beyond the traditional facility inspection and issuance of Incidents of Non-Compliance (INCs), as performed in standard BSEE inspections. The SEMS regulations required the audits to review program documents and procedures, and determine whether the programs were implemented.

As the BSEE SEMS regulations represent a shift toward more of a performance-based regulatory model versus the traditional focus on strict compliance, both BSEE and industry had to modify their expectations and approaches around how to demonstrate and verify that the BSEE SEMS

regulations had been implemented. Therefore, our findings and lessons learned from the first cycle of SEMS audits relate to both specific SEMS-related observations and observations of the auditing processes used to verify compliance with the requirements of 30 CFR 250.

II. SEMS-Related Observations

The overall finding of the first cycle of SEMS audits is that OCS operators have implemented a SEMS. However, the current compliance rate of 96%¹ tells only a small part of the story. **The system maturity and level of SEMS awareness and understanding amongst operators vary significantly.** For companies that have long-standing, established internal safety and environmental management systems as part of their corporate culture, the response to the BSEE SEMS regulations generally consisted of mapping their internal program elements to the requirements of 30 CFR 250 Subpart S. More importantly, the requirement to submit a report of their SEMS audit to BSEE gave many companies the opportunity to evaluate their internal programs and processes against a government standard, and reinforce the importance of and commitment to their SEMS program within their workforce. For those organizations where 30 CFR 250 triggered a first effort to develop and implement a formal SEMS, the focus was more on fulfilling the requirements of Subpart S rather than developing a tool to manage their respective operating health, safety, and environmental (HSE) risks.

Because the audit process and reporting formats used by the individual operators varied significantly, and because the level of program maturity directly impacts the methodology used to assess level of implementation and ultimately effectiveness of a SEMS program, a quantitative analysis of the results of the first cycle of BSEE SEMS audits will not produce a meaningful performance assessment. However, recurring trends in performance, areas of strength, and gaps in development and implementation were identified. These include:

- **Emergency Response and Auditing were identified as the best understood, documented, communicated, and implemented SEMS elements among the OCS operating companies.** However, common opportunities for improvement were identified for the design and planning stages of the programs themselves and in the ways companies were actioning findings and lessons learned from their audits or drills.
- **There appears to be a strong focus on the historically important parts of SEMS—**mainly Training and Safe Work Practices while the “management of risk” elements such as Hazards Analysis and Management of Change (MOC) are not as consistently implemented as tools to manage risk.
- **Pre-startup Review observations showed lack of implementation of procedures.** The relatively low number of findings for this element may reflect a potential lack of understanding of the intent of the PSR element.
- **A common observation has been that SEMS elements have been implemented in isolation,** with little definition or recognition of the interactions or interdependencies between elements. For example, a requirement to perform hazards analysis is frequently documented and often referenced as a corrective action, rather than as a “system driver” or as a tool supporting other SEMS elements such as operating procedures or auditing.

¹ 86% responded by the deadline, and an additional 10% have responded to date.

- **The audit results also identified examples in which SEMS elements were implemented without establishing adequate requirements for use.** While Management of Change was widely reported to be implemented with all the requirements for 30 CFR 250 Subpart S met, little evidence was provided to demonstrate that the audited parties had defined when a change will require the use of the MOC process.

III. Audit Process Observations

There was wide variation in the format of the reports submitted to BSEE during this first audit cycle. The variation in audit report format and content, audit methodology,² scope of OCS activities, and the maturity of SEMS programs among operators prevents a reliable and valid statistical analysis of audit report results. Further, there were reports of operators conducting multiple SEMS audits to avoid having to report systemic nonconformances to BSEE. Although nonconformances may be a sign of a thorough audit, there was the perception among at least some operators that any nonconformance uncovered during the audit could lead BSEE to consider the operator’s SEMS program to be deficient. This multiple audit phenomenon adds to our finding that a statistical analysis of first cycle audit report results is not appropriate.

While the diversity in reporting format follows the management system premise of the operators taking ownership of their SEMS, the variability in audit approaches and reporting format presented challenges in reviewing and interpreting the findings.

- Many of the reports were focused on identifying areas of noncompliance or nonconformance, likely because the regulations require operators to identify “deficiencies.” Most reports did not provide sufficient information documenting compliance. However, some operators did report positive findings in addition to nonconformances. These positive findings represent a potential opportunity to identify best practices.
- The audit questions were focused on assessing compliance rather than focusing on successfully reducing or managing risk. Audit protocols required evidence of requirements, e.g., written procedures, and did not support measurement of degrees of implementation or effectiveness. Some auditors, however, provided a qualitative assessment of the operator’s manner and degree of implementing particular requirements. These qualitative assessments helped BSEE gain a better understanding of the operator’s SEMS program and its level of implementation.
- Some audit reports were submitted as nothing more than a completed checklist with little incorporated information or analysis. The use of compliance checklists, especially when submitted as the audit report, limits BSEE’s ability to assess degrees of implementation or effectiveness.
- There was a lack of evidence that effectiveness of the various programs was routinely measured or assessed.

² Many audits were performed by independent third-party audit service providers (ASP); however, some audits were performed by the operator. The SEMS II Final Rule requires all audits to be performed by ASPs, but operators have *until* June 5, 2015 to comply with this requirement.

A SEMS audit should involve a review of program documentation, a review of whether the documentation content had been operationalized and implemented, a measurement of the effectiveness of the system, and ultimately an analysis of whether the system as designed is achieving the desired results. Most audit findings from the first cycle of SEMS audits addressed issues related to the quality of documentation or supporting evidence of implementation. More telling, however, were those findings which dealt with program effectiveness. Assessments of program effectiveness were especially informative when the operator had a strong internal HSE management system in place. Unfortunately, the status of implementation and effectiveness of a SEMS could not be assessed from many of the submitted SEMS audit reports because of the lack of evidence in the audit reports. The stage of system maturity was also not measured or described consistently enough to provide insight into how the programs were evolving or of the relative SEMS program maturity across the OCS.

IV. Conclusions

Based on the first cycle of BSEE audits, the general finding is that the current status of SEMS implementation is geared toward compliance. Operators, in general, did not provide evidence that they are implementing SEMS as an effective management tool.

A key learning was the recognition that the maturity of the SEMS program must be taken into account when developing the audit protocols and conducting the audit. By adapting the audit to the level of maturity, the operators and BSEE will be able to assess the progress of implementation, identify those elements that are progressing as planned, and focus on the elements where additional management attention or resources are needed.

We expect that implementation of the SEMS II Final Rule of April 2013, which mandates the use of an accredited third party audit service, will help improve audit quality during the second audit cycle. Operators must comply with the auditing requirements under 30 CFR § 250.1920 by June 5, 2015.

Areas where BSEE will be focusing our attention during the second audit cycle include:

- Encouraging operators to improve audit results through formal and informal dialogue, focusing on reporting best practices as well as deficiencies.
- Establishing expectations for data control to encourage fully supporting the audit findings within the report text.
- Publishing guidance, such as NTLs, for program implementation, auditing and measuring program maturity and effectiveness so that BSEE can more effectively report on progress against baseline criteria.
- Incorporating a SEMS maturity measure or performance indicator into the SEMS audits in order to more realistically assess progress of SEMS implementation and effectiveness both at the individual operator level as well as for the OCS as a whole.
- Continuing to work with Center for Offshore Safety to improve its widely-used audit protocol and encourage a more comprehensive analysis for each item.

- Developing representative leading indicators for SEMS performance, while continuing to track industry accepted lagging indicators for evidence that SEMS programs are driving an improvement in safety performance.
- Using BSEE personnel as audit observers and to independently assess SEMS implementation and overall safety culture of the OCS facilities.
- Engaging operators to discuss recognized best practices and sharing lessons for the benefit of OCS safety, health and environmental performance industry-wide.
- Conducting focused audits on critical process elements.