To ensure safety of offshore drilling and production, government should modify oversight practices

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To ensure the effectiveness of recently mandated Safety and Environmental Management System (SEMS) programs for offshore drilling and production operations, the Bureau of Safety and Environmental Enforcement (BSEE) should take a holistic approach that modifies some of its existing practices, says a new report from the National Research Council. These should include inspections, operator audits, bureau audits, key performance indicators, and a "whistleblower" program. The report emphasizes using cooperation and consultation to further develop a culture of safety.

These recommendations are consistent with the bureau's proposed changes to SEMS with the exception of one change to require that audits be performed by third parties. The Research Council report stresses that a truly independent internal audit team is preferred to an external third-party team to avoid the development of a "compliance mentality." Audits should be carried out by the operator's internal qualified, independent team whenever possible. BSEE, however, should approve all audit plans and receive a copy of each audit and follow-up report

"BSEE should seize this opportunity to make a step change in safety culture," said Kenneth Arnold, senior technical adviser at WorleyParsons, Houston, and chair of the committee that wrote the report. "The bureau can tailor its approach to evaluating the effectiveness of SEMS in order to move both the industry and the

government from a culture of relying on punishment only -- obtaining prescriptive adherence to pass/failure requirements -- to a culture of continuous improvement. The idea is to meet the goals of SEMS through a mixture of cooperation and consultation as well as punishment."

Since the April 2010 Deepwater Horizon blowout and explosion, the federal government as well as the offshore oil and gas industry have been undergoing major changes, including the issuance of regulations requiring operators of offshore facilities to adopt and implement comprehensive SEMS programs by Nov. 15, 2011. These systems are intended to shift from an entirely prescriptive approach to a proactive risk-based, goal-oriented regulatory approach to improve safety and reduce the likelihood of similar events recurring. The committee for this study was charged with recommending a method of assessing the effectiveness of operators' SEMS programs on any offshore drilling or production facility.

In addition to compliance inspections and an internal, independent auditing system, the report recommends that the bureau establish a key performance indicator program to identify metrics to evaluate the SEMS audit approach and to find opportunities for improvement. This information should be used to determine trends and should be disseminated to the industry in a timely manner.

The report also recommends that BSEE establish a "whistleblower" program to help monitor the culture of safety at each installation and correct any improprieties in its own operations. Workers must have a way to anonymously report dangerous deviations in norms and motivations that may not be obvious to bureau inspectors or even to internal auditors, as well as unprofessional conduct by BSEE's own staff, says the report.

BSEE should continue to perform complete or partial audits when

justified by reports, incidents, or events, and is responsible for verifying that quality audits are carried out and acted on appropriately. To fill this role, the bureau needs a cadre of trained auditors who will be able to spend sufficient time on location to conduct the appropriate audits. Hiring and training additional personnel will likely be necessary, the report says. BSEE inspectors should be trained to focus on promoting safety rather than issuing citations for incidents of noncompliance that may or may not be important in meeting the intent of SEMS.

Provided by National Academy of Sciences

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