Reforms since the Deepwater Horizon Tragedy

In response to the *Deepwater Horizon* blowout, explosion and resulting oil spill in the Gulf of Mexico in 2010, the Department of the Interior launched the most aggressive and comprehensive reforms to offshore oil and gas regulation and oversight in U.S. history. This included restructuring to provide independent regulatory agencies that have clear missions and are better resourced to carry out their work, while keeping pace with a rapidly evolving industry. These efforts help ensure that the United States can safely and responsibly expand development of its domestic energy resources.

Bureau of Safety and Environmental Enforcement

The comprehensive reforms undertaken by the Bureau of Safety and Environmental Enforcement (BSEE) touch all facets of the offshore oil and gas program and cover components of its regulatory and oversight responsibilities as well as the promotion of a culture of safety and investments in the latest scientific safety and technology. A few highlights of BSEE efforts are described below:

Reducing Risk through Enhanced Well Design and Casing Standards – The 2010 Drilling Safety Rule requires that permit applications for drilling projects meet heightened standards for well-design, casing and cementing. BSEE engineers have reviewed, analyzed, and approved a total of 579 new well permits for drilling in the Gulf of Mexico since October 2010, when the new rule went into effect.

Increasing Inspection and Engineering Workforce – The number of inspectors in the BSEE Gulf of Mexico OCS Region has increased from 55 in April 2010 to 92 currently. BSEE inspectors now specialize in well or production operations; this specialization allows for more training and time devoted to a specific area of inspection. The engineer workforce has increased from 106 at BSEE's inception in October 2011 to 129 currently. This allows for the increased review of permits, and more analysis to ensure compliance with the enhanced standards.

Promoting Safety Culture and Continuous Improvement at All Levels of Industry – The 2010 Safety and Environmental Management System (SEMS) rule establishes performance based standards for industry to maintain an active integrated program for safety and environmental management that empowers workers to participate in safety management decisions. As of November 2013, BSEE had received audit reports from 96% of OCS operators. BSEE continues to work with operators on corrective action plans.

Enhancing Blowout Preventer (BOP) Testing and Maintenance Review – With the increased inspection force and new requirements for BOP testing, BSEE inspectors must now be on location and observe the BOP testing prior to drilling commencing at the rig site. This allows BSEE inspectors to witness first-hand the skill level of the drilling crews and provide more oversight of the crew's handling of the BOP function. Since October 2010, BSEE inspectors have monitored 169 on-site BOP tests. Inspectors also conduct detailed reviews of results from BOP tests; 409 of these detailed reviews have been completed since October 2010.

Access to Subsea Containment Capability –Before receiving approval for deepwater operations, all operators now must demonstrate the capability to contain a subsea blowout such as the one seen in the *Deepwater Horizon* explosion and resulting spill. Operators demonstrate that they have access to all necessary equipment for subsea well control and containment, including a capping stack. As a result, there is now containment equipment available for industry deployment.

Emerging Technology – BSEE funded the start-up costs for the Ocean Energy Safety Institute to provide recommendations and technical assistance to BSEE related to emerging technologies and serve as an important source of unbiased, independent information. In a separate initiative in 2014, BSEE established a Technology Center to serve as a resource to BSEE engineers who review and approve the use of new technology by the offshore oil and gas industry.

Enhancing Ability to Investigative Significant Incidents and Allegations of Misconduct – BSEE has boosted its investigative capabilities by creating dedicated team of investigators available to deploy when offshore incidents occur and/or to follow up on allegations of illegal conduct during OCS operations.

Developing a Well Control Rule – BSEE has been working to increase equipment reliability and build upon enhanced industry standards for blowout preventers and, in a comprehensive way, address the multiple systems and processes critical to well control operations. The proposed rule will be published and open for public comment soon.

Bureau of Ocean Energy Management

The comprehensive reforms within the Bureau of Ocean Energy Management (BOEM) are designed to ensure that – before plans from industry are approved for exploration or development – environmental safeguards are strong and based on the best science available. In addition, the bureau has taken action to raise the cap on industry liability for oil spills and to provide its expertise in long-term Gulf of Mexico restoration and recovery. A few highlights of BOEM's efforts are described below:

Strengthening environmental review – Requiring site specific environmental assessments for all deepwater exploration plans and a review of its application of the National Environmental Policy Act in order to strengthen the framework designed to ensure that environmental risks are thoroughly analyzed, appropriate protective measures are implemented, and that environmental analyses are transparent and well-understood within the Federal government and by the public and stakeholders.

Focus on science-based decision-making – A new Office of Environmental Programs (OEP), led by a Chief Environmental Officer, was established in 2011. This allows better integration of science into decision-making at every stage of the oil and gas development process and facilitates top-quality research by talented scientists from a range of disciplines.

Environmental research focused on Gulf of Mexico Monitoring, Recovery and Renewal – BOEM has focused on long-term monitoring, recovery and renewal of the Gulf of Mexico by conducting studies with federal, university and industry partners. These studies investigate impacts of the oil and dispersants on marine resources, develop state-of-the-art tools for modeling oil spill transport, and analyze social and economic recovery from oil spill impacts.

Thorough review of exploration and development plans – Enhanced web-based review of plans has helped ensure that companies are complying with rigorous operational and environmental standards and that BOEM's reviews are efficient and transparent. The bureau is modernizing plan review through web-based applications and has added an evaluation process for reviewing information related to the potential for an oil spill that is submitted to the agency by the industry.

Improving Worst Case Discharge calculations – Tightened Worst Case Discharge (WCD) calculations are required for the offshore oil and gas industry. BOEM engineers and geoscientists validate the assumptions and calculations and conduct independent analyses of the WCD scenarios included in operators' plans.

Improving accuracy in air quality modeling – BOEM has made several changes to its air quality program. The bureau now allows the use of two air dispersion models, increasing accuracy of estimated impacts to coastal states for sources farther from shore. In addition, BOEM is funding air quality studies to help develop updated or additional models.

Long-term ecosystem health and restoration – BOEM is a key federal partner in carrying out the goals of the RESTORE Act. Through research and coastal restoration expertise, BOEM contributes to the framework for a long-term program to restore the natural resources of the Gulf of Mexico and Gulf Coast region.

Increasing limits of liability – BOEM has implemented new strategies to hold responsible parties accountable. BOEM has increased the limit of liability for oil-spill related damages from $75 million to approximately $134 million for offshore oil and gas facilities – the maximum allowed under the law – and has established a process for future increases to keep pace with inflation.

Developing shared international standards in the Arctic – BOEM and BSEE have published proposed the Arctic specific standards to ensure that operators take the necessary steps to thoroughly plan for and conduct safe exploratory drilling operations under unique Arctic conditions

The Department of the Interior Commitment

Central to the nation's domestic energy portfolio, the OCS provides about one-fifth of the oil produced in the country, with production projected to increase in the coming years. As our commitment and duty to the American people, BOEM and BSEE will remain vigilant in instituting reform efforts and lessons learned since the tragic *Deepwater Horizon* event. Our goals are to ensure safe and responsible operations on the OCS, the long-term improvement and restoration of the Gulf Coast, and protection of other unique ecosystems of the OCS.