STATEMENT OF LARS HERBST
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UNITED STATES DEPARTMENT OF THE INTERIOR
BEFORE THE
COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

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Chairman Bishop, Ranking Member Grijalva, and members of the Committee, thank you for the opportunity to appear here today to discuss the impacts of Federal regulatory activity on oil and gas exploration and production on the Outer Continental Shelf (OCS) in the Gulf of Mexico.

Over the past several years, the Bureau of Safety and Environmental Enforcement (BSEE) has made a significant effort to update its regulations to reflect technological advancements, recommendations in response to the blowout of the Macondo well and resulting *Deepwater Horizon* disaster, and the challenges posed by exploratory activities on the Arctic OCS. These updates are a critical part of our efforts to ensure safe and environmentally responsible operations offshore and our recent rulemaking activities constitute a substantial step toward safe and sustainable exploration and production of Gulf of Mexico oil and gas resources. Safe and responsible exploration remains our top priority. By doing things safely and ensuring that incidents do not cause significant damage to the entire region, we are helping to safeguard the long-term viability of production in the Gulf of Mexico. Sustained production and a robust culture of safety are not mutually exclusive.

In calendar year 2014, OCS leases in California, Alaska, and the Gulf of Mexico provided 528 million barrels of oil and 1.3 trillion cubic feet of natural gas; the vast majority of this production came from the Gulf of Mexico. In 2014, oil production in the Gulf of Mexico region was at its highest level since the Macondo blowout. Over 510 million barrels of oil were produced from the Gulf of Mexico in 2014, making this the third highest production year in the span of 2005-2014. Even with the expansion and strengthening of offshore oil and gas regulations prompted by the Macondo blowout, the ten-year average production rate has increased annually since 2005 (see *Figure 1 – Total Oil Production for the United States Outer Continental Shelf 2005-2014*). Since 2010, OCS leases have provided nearly 2 billion barrels of oil and 6.2 trillion cubic feet of natural gas, fueling economic growth and accounting for more than 19 percent of the nation's oil production and about five percent of domestic natural gas production. BSEE will continue to support domestic energy production from the nation's offshore resources, while actively working to reduce risk in order to ensure safe and environmentally responsible operations on the OCS.

In 2016, BSEE expects production in the Gulf of Mexico to continue increasing, with several large projects expanding and other new projects coming online. The Shell-operated

Olympus facility is one example of project expansion. When production began in 2014, it produced 35,000 barrels of oil per day (BOPD). By 2016, production is expected to increase to 80,000 BOPD. Another example is Anadarko's *Lucius* field which reported first oil production on January 19, 2015 and quickly ramped up to 80,000 BOPD in the second quarter of 2015. *Lucius* is also processing gas for subsea wells operated by ExxonMobil's Hadrian South subsea project which reported first production on March 30, 2015 with production estimated to ramp up to 300 million cubic feet of gas per day (MMcfpd) and 3,000 barrels of liquid (condensate). The Bureau estimates that in 2016 nearly 1.7 million barrels of oil per day will be produced from the Gulf of Mexico alone, putting annual oil production near 620 million barrels per year – 110 million barrels higher than in 2014, and the highest rate in ten years.

A deepwater floating production project often takes approximately ten to twelve years to come online from discovery to first oil. As such, BSEE evaluates information provided by operators many years in advance of new production coming online. The production trends you see in *Figure 1* are expected to increase in the years ahead as a number of projects are already sanctioned and well into the advanced planning stages. We expect two to three large floating production projects and eight subsea tie-back projects to come online in 2016 and start first production. In fact, BSEE just last week completed a pre-production inspection of the *Heidelberg* production SPAR that will be operated by Anadarko and is expected to begin production in 2016. You can view photos from the production and inspection on our Flickr® website (https://www.flickr.com/photos/bseegov/).

There is a tendency to focus on overall trends in energy commodity prices – such as the price of oil – and to try to tie those trends to current production levels. Oil prices and market expectations about future prices have varying degrees of impact on permitting demands and production levels in different areas. For example, permit requests and rig counts in some areas of the U.S. can be affected significantly by sharp changes in oil prices. However, deepwater production, which accounts for over 75% of OCS production, is not affected in the same way by short term market fluctuations or other policy drivers. Deepwater prospects are planned and sanctioned many years in advance and involve long-term rig contracts to allow the operator to drill within the lease term. The same concept applies to production. Large production facilities, like Shell's *Olympus* or Chevron's *Jack-St. Malo*, are already online and remain economically viable to produce for a long period of time (years) even when oil prices are lower for a period of time. Therefore, assumptions about the interconnectivity of deepwater production and short-term market conditions should be avoided. Even as the number of wells has decreased, production has remained high due to technological advancements (see *Figure 2 – Gulf of Mexico Outer Continental Shelf Oil Production, Total vs Deepwater (Numbers Reflect Average Daily Oil Production*)).

Immediately following the *Deepwater Horizon* disaster, the Department of the Interior and BSEE issued a series of regulations and notices to improve safety offshore. Former BSEE Director Michael Bromwich discussed the importance of safety and change before the House Committee on Natural Resources in March 2011:

> "Regulatory and industry reform in the wake of significant offshore disaster has happened before. The United Kingdom and Norway

> substantially changed their oversight of offshore drilling and production following the *Piper Alpha* and *Alexander Kielland* incidents respectively. Australia is currently facing many of the same issues we are confronting following the Montara well blowout, which occurred only eight months before the *Deepwater Horizon* disaster….
>
> The major challenge facing the country is to continue to improve the safety of drilling in the GOM, particularly in deepwater, while continuing with operations, keeping production flowing and keeping people working." [1]

Nearly five years have passed since former Director Bromwich's remarks and his points are as relevant today as they were then, which is why we must continue to ask whether the fundamental changes discussed have occurred. In some areas, they have. BSEE discusses these changes at length in its Annual Report. Federal regulators, state governments, and the oil and gas industry have worked together to make significant strides in mitigating the consequences of blowouts by implementing requirements for immediate access to containment systems. However, the most significant challenge facing the agency is to make similar strides in prevention, which includes blowout prevention and well control. BSEE and industry worked tirelessly to develop the well containment screening tool which, along with the development of new well containment equipment, allowed drilling to resume after the *Deepwater Horizon* tragedy. These issues we addressed in the proposed rule entitled Blowout Preventer Systems and Well Control, which was published on April 17, 2015 (74 FR 21504).

Understanding the importance of reforming well control practices, BSEE is reviewing public comments and developing the final rule. This rule closes gaps in blowout preventer requirements and updates BSEE regulations to reflect industry best practices. The proposed rule also incorporates the latest industry standards as well as recommendations that resulted from investigations into the Macondo blowout, the resulting fire and loss of life onboard the *Deepwater Horizon*, and the environmental disaster that followed. Specifically, the proposed rule includes provisions that increase requirements for equipment reliability and build upon industry standards for blowout preventers. In a comprehensive way, the proposed rule addresses the multiple systems and processes critical to well control operations. The proposed rule includes more stringent design requirements for critical well control safety system equipment and requirements concerning the generation of traceable records regarding the manufacture, use, maintenance, and decommissioning of blowout preventers and other well control equipment. The proposed rule helps to move BSEE closer to a hybrid regulatory approach – one that is both prescriptive and performance-based. A hybrid approach grants BSEE greater flexibility and allows for a more holistic approach to regulation. The comment period on the proposed rule has closed and BSEE is currently meeting with key stakeholders and industry leaders – which started yesterday and continues today – to discuss their comments. As with all new rule adoption, BSEE employs a robust process of public engagement and considers all comments and feedback.

The necessity of the Well Control Rule is demonstrated by the fact that the number of loss of well control incidents has increased in the last two years and thus, these incidents are still

[1] Bromwich, Michael. Statement to House Natural Resource Committee 3/30/2011

occurring with a frequency that is comparable to that which existed prior to the Macondo blowout. Six of the last seven investigations completed by BSEE for loss of well control incidents found that the root cause of each incident was tied to equipment difficulties, in particular the design specifications of wells. *Figure 3* shows the continued occurrence of loss of well control incidents on Gulf of Mexico facilities (see *Figure 3 – Loss of Well Control Incidents in the Gulf of Mexico from 2008 to 2014)*. The proposed Well Control Rule addresses these issues.

New regulations are designed to prevent blowouts like the Walter Oil and Gas incident that occurred in 2013 when a blowout and explosion caused a fire on the rig. All 44 workers were safely evacuated, but the fire lasted over 72 hours and the rig was completely destroyed resulting in a financial loss approaching $60 million. Blowouts like these can easily lead to much larger incidents that pose a significant risk to human life and can cause serious damage to the environment. The Incident Report published about the Walter blowout discusses numerous points where things could have gone tragically wrong. Fortunately, this did not happen, but the risk remains high in the region. By strengthening oversight and encouraging a culture of safety within the industry, BSEE is helping safeguard the long term viability of drilling in the Gulf of Mexico.

Well control is not the only area in which BSEE has proposed significant improvements. Another major area of safety reform includes an update to our production safety systems regulations[2]. The section of BSEE's regulations related to production safety systems has not been updated since 1988 and significant technological advancements have been made in that time. The proposed regulation addresses production safety systems, subsurface safety devices, and provides specification for safety device testing. BSEE is currently working to finalize this rule.

As noted in BSEE's 2014 Annual Report[3], there continue to be issues related to aviation as well as crane safety. BSEE has issued an Advanced Notice of Proposed Rulemaking for Helideck and Aviation Fuel Safety for Fixed Offshore Facilities[4]. Public comments have been received and we will be reviewing them.

Lifting incidents involving cranes or personnel and material handling operations are increasing. From 2007 to 2014, the average number of lifting incidents reported per year was 167. While the lowest number of incidents was reported in 2010, incidents have increased since then (see *Figure 4 – Lifting Incidents per Outer Continental Shelf Installation from 2007 to 2014*). BSEE is currently working to finalize a Crane Safety Rule[5] to reduce lifting incidents

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[2] Proposed Rule: Oil and Gas and Sulphur Operations on the Outer Continental Shelf--Oil and Gas and Production Safety Systems. Published on Thursday, August 22, 2013 (78 FR 52240).

[3] BSEE Annual Report 2014 - http://www.bsee.gov/uploadedFiles/BSEE/BSEE_Newsroom/Publications_Library/Annual_Report/BSEE%202014%20Annual%20Report.pdf

[4] Advance Notice of Proposed Rulemaking: Oil and Gas and Sulphur Operations in the Outer Continental Shelf (OCS); Helideck and Aviation Fuel Safety for Fixed Offshore Facilities. Published on Wednesday, September 24, 2014 (79 FR 57008).

[5] Proposed Rule: Oil and Gas and Sulphur Operations in the Outer Continental Shelf--Update of Incorporated Cranes Standard. Published on Monday, June 15, 2015 (80 FR 34113).

based on the increased number of lifting incidents observed on the OCS.

We are also working to strengthen our offshore oversight by considering the use of real-time monitoring technologies and voluntary near-miss reporting to improve and increase the regulatory oversight of critical offshore operations and equipment. The real-time monitoring program is intended to enhance the existing inspection and enforcement program by using innovative technologies and risk-based inspection criteria to supplement BSEE's current inspection program. The voluntary near-miss reporting system, SafeOCS, was formally launched in May 2015. It is a completely confidential system whereby the Bureau of Transportation Statistics collects and aggregates data on behalf of BSEE. The aggregated data will be shared with the general public through the BTS website and be used to identify safety trends and increase the understanding of offshore risk. When used in conjunction with existing methods of collecting data and assessing risk, this amalgamated data can be used to identify trends that will help to reduce the risk of major incidents, loss of life, injury and negative impacts on the environment.

Our people continue to be our greatest asset and the most essential component of our operations. BSEE's ability to successfully accomplish its mission depends heavily on our ability to recruit and retain a workforce of qualified technical experts. Currently, BSEE is the number one employer of students from Louisiana State University's Petroleum Engineering program – both as summer interns and as full-time employees. We are proud of our local connections and have found that our message of safety and responsible exploration resonates with young petroleum engineers from the state of Louisiana. These engineers, like BSEE, are interested in helping safeguard the people of their state and ensure that future blowouts do not catastrophically impact the region and their homes. At the end of the day, our mission is to safeguard the people and the environment of our coastal states and ensure that all offshore personnel make it safely home at the end of each shift.

It is our belief that our work as regulators – on behalf of the American people – is never finished. As our commitment and duty to the American people, we will remain vigilant in instituting reform efforts and benefitting from lessons learned from activities and incidents on the OCS. We will continue to work cooperatively with the regulated community to promote best practices and to support a robust culture of safety within the offshore oil and gas industry, which produces these resources that are so valuable and essential to our economy.

This concludes my formal statement, and I am happy to answer any questions you have about the proposed rules or the current state of BSEE's regulation and oversight of oil and gas operations in the Gulf of Mexico.

Attachments

Fig 1. *Total Oil Production for the United States Outer Continental Shelf 2005-2014.*

Fig. 2. *Gulf of Mexico Outer Continental Shelf Oil Production, Total vs Deepwater (Numbers Reflect Average Daily Oil Production).*

Fig. 3. *Loss of Well Control Incidents in the Gulf of Mexico from 2008 to 2014.*

Fig. 4. *Lifting Incidents per Outer Continental Shelf Installation from 2007 to 2014.*