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INTRODUCTION

Good morning, Chairman Murkowski, Ranking Member Cantwell, and members of the Energy and Natural Resources Committee. Thank you for the opportunity to testify before you today about the proposed rule on "Oil and Gas and Sulphur Operations in the Outer Continental Shelf – Blowout Preventer Systems and Well Control," also known as the "Well Control Rule." My name is Jacqueline Savitz, and I am Vice President for U.S. Oceans at Oceana, the largest international advocacy organization focused exclusively on ocean conservation.

In April 2015, the Department of the Interior's Bureau of Safety and Environmental Enforcement (BSEE) proposed new regulations to protect human lives and the environment from the threat of well blowouts. This proposed rule includes more stringent design requirements and operational procedures for critical well control equipment used in offshore oil and gas operations.[i,ii] Many of these actions relate to the maintenance, design, and certification of blowout preventers.

Oceana applauds the efforts of BSEE and the Department of the Interior to increase the safety of offshore drilling operations; however, the proposed rule in its current form is not sufficiently robust to protect the oceans. That being said, the proposed rule is a significant improvement over the status quo and addresses many blowout-related concerns raised by various commissions following the BP tragedy in 2010. Oceana therefore urges BSEE and the Department of the Interior to finalize and implement this rule as expeditiously as possible.

NEED FOR STRONGER PROTECTIONS

Oceana's interest in this rule stems from our concern about the damage to ocean ecosystems, and to the human communities that depend upon them, that can result from leaks and spills of oil and gas and associated materials into the ocean. Oil and gas are toxic to fish, shellfish, marine mammals, birds, sea turtles, corals, and virtually every part of the web of life in the ocean. It is estimated that the catastrophic BP oil spill in the Gulf of Mexico killed as many as 5,000 marine mammals and nearly one million coastal and offshore birds. More than 1,000 sea turtles were found dead, and three deep-sea coral communities were extensively damaged. Harvests of oysters and fish were drastically reduced, devastating the Gulf's fishing communities, and tourists fled the region.[iii] In fact, tourism suffered even in vacation destinations along the Florida Gulf Coast where no oil washed ashore.[iv]

Rather than expanding offshore oil drilling, the U.S. should transition away from it, and replace it with offshore wind power and other types of clean, renewable energy. In a recent report on offshore energy, Oceana found that a modest and gradual development of offshore wind on the East Coast could generate enough power for over 115 million households. We also found that over the next 20 years, offshore wind could create about 91,000 more jobs than offshore drilling, which is about double the job creation potential of offshore drilling in the same area.[v]

With dozens of offshore oil rigs currently operating in U.S. waters, [vi,vii] we take a strong interest in the Well Control Rule. As Secretary Jewell acknowledged when she unveiled it, the proposed Well Control Rule builds on multiple investigations of the Deepwater Horizon disaster,[viii] including the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, found numerous errors, mistakes and management failures that compromised safety[ix] and resulted in one of the worst environmental disasters in US history. The National Commission's investigation also found that equipment and practices had failed to keep pace with the challenges as the industry moved into deeper water:

> *…drilling in deepwater brings new risks…The drilling rigs themselves bristle with potentially dangerous machinery. The deepwater environment is cold, dark, distant, and under high pressures—and the oil and gas reservoirs, when found, exist at even higher pressures (thousands of pounds per square inch), compounding the risks if a well gets out of control. The Deepwater Horizon and Macondo well vividly illustrated all of those very real risks. When a failure happens at such depths, regaining control is a formidable engineering challenge—and the costs of failure, we now know, can be catastrophically high. In the years before the Macondo blowout, neither industry nor government adequately addressed these risks. Investments in safety, containment, and response equipment and practices failed to keep pace with the rapid move into deepwater drilling. Absent major crises, and given the remarkable financial returns available from deepwater reserves, the business culture succumbed to a false sense of security.*[x]

It is deeply concerning that losses of well control and other incidents continue to occur on the Outer Continental Shelf without showing significant decline in the wake of Deepwater Horizon. Regarding loss of well control incidents, BSEE lists eight for 2008, a dip to three in 2011, and back up to eight in 2013 and seven in 2014.[xi] For OCS incidents or spills, BSEE reports 871 for 2008 and 770 for 2014.[xii]

Almost six years have passed since Deepwater Horizon, and four or five years have passed since a series of investigations, analyses, and reports were completed. Therefore, BSEE's activities to strengthen safety requirements for offshore drilling though the Well Control Rule are welcome and should be completed as soon as possible.

BLOWOUT PREVENTERS

We are concerned that the proposed rule would not require companies to deploy dual blind shear rams on all blowout preventers, even though these are a crucial last resort safety measure.[xiii] Requiring the installation of dual blind shear rams would add redundancy to the system so that if one blind shear ram failed to sever the pipe (which can happen depending on the location and angle at the point of contact), the second blind shear ram might be able to do so.

Blowout preventers are used to "prevent the uncontrolled release of hydrocarbons in an emergency situation by mechanically closing valves or rams that block the flow of fluid from the well."[xiv] A critical part of the blowout preventer is the blind shear ram, which "is designed to cut drill pipe in the well and shut in the well in an emergency well situation."[xv] The blind shear ram's ability to seal a well makes it a critical component of a blowout preventer. Although other shear rams can cut pipe or casing, only the blind shear ram can seal the well completely.

The proposed Well Control Rule would require the following for subsea blowout preventer systems: "At least one shear ram must be capable of sealing the wellbore after shearing under MASP [Maximum Anticipated Surface Pressure] conditions as defined for the operation. Any non-sealing shear ram must be installed below the sealing shear ram."[xvi]

However, a single blind shear ram may not sufficiently seal the drill pipe. A partially or incorrectly sealed pipe can leak catastrophic amounts of oil and natural gas, as demonstrated by the *Deepwater Horizon*.[xvii] A report commissioned by the Department of the Interior to review the *Deepwater Horizon* spill found that the one set of blind shear rams on BP's Macondo well failed to complete a seal in April 2010 because they were jammed by a portion of drill pipe knocked out of alignment in the explosion."[xviii] And West Engineering Services, an industry safety specialist, "found that only three of seven blowout preventers successfully sheared pipe in realistic emergency conditions."[xix]

The proposed Well Control Rule would require that shear rams be designed to include technology to center the drill pipe during shearing operations. While this provision will improve safety, a second set of blind shear rams is still necessary to ensure that the well can be sealed. Redundancy ensures that if one set of blind shear rams malfunctions for any reason, the other can still do its job. The Chemical Safety Board's investigation of the Deepwater Horizon accident found two instances of miswiring and two backup battery failures affecting the electronic and hydraulic controls for the BOP's blind shear ram.[xx]

Given the importance of dual blind shear rams to offshore drilling safety, all current and future blowout preventers should be equipped with two of these devices. Because these rams serve as the last lines of defense against a blowout and also address one of the main malfunctions that led to the BOP's inability to prevent the 2010 *Deepwater Horizon* oil spill, BSEE should place the utmost importance on companies' ability to seal a well and prevent a blowout.

COMPLIANCE PERIODS

Oceana is also concerned that the compliance periods proposed by BSEE will cause unnecessary and potentially harmful delays. The timeline for compliance laid out in the rule is entirely too long. The rule itself comes more than five years after the *Deepwater Horizon* disaster. BSEE compounds this delay by introducing a potential three- to seven-year compliance period for some of the most crucial aspects of the proposed rule, including the installation of two shear rams.[xxi] BSEE is also considering the inclusion of a ten-year compliance period for companies to install important technology that is capable of severing components of the drill string.[xxii] In all, it could be more than sixteen years after the *Deepwater Horizon* catastrophe before BSEE finalizes and the industry implements these critical safety regulations. This timeline is not acceptable.

BSEE solicited comments on the proposed compliance periods[xxiii] but offered no rational reason for the chosen compliance period lengths. BSEE, for example, proposes that "operators would be required to install shear rams that center drill pipe during shearing operations within 7 years from the publication of the final rule."[xxiv] However, earlier in the proposed rule, BSEE discloses, "[I]t is aware of at least one [blowout preventer] equipment manufacturer that currently has pipe centering technology available."[xxv] Since industry has already developed this technology, the seven-year compliance period is a needless and irrational delay. BSEE must justify the compliance periods outlined in the rule.

These unjustified compliance periods are especially worrying in light of the pervasive safety and environmental incidents caused by the offshore drilling industry. In the four years following the

Deepwater Horizon spill, BSEE reports that offshore drilling caused a total of 1,063 injuries, 477 fires and explosions, 22 losses of well control, 11 spills of over 2,100 gallons of oil, and 11 fatalities.[xxvi] Given this perilous operational backdrop, BSEE and the Department of the Interior should quickly move forward the finalization and implementation of this rule.

Instead of including compliance periods of three to seven years from the publication of the final rule, BSEE should take aggressive action to implement stronger rules as soon as possible. Oceana's position is that new offshore wells should not be drilled when safety cannot be assured, but since offshore drilling continues to take place, compliance with these rules should not be delayed.

URGENCY OF WELL CONTROL AND BOP REQUIREMENTS

The Well Control Rule and BOP requirements are urgently needed—the more so because there are systemic problems in the regulation of offshore drilling that the agency cannot address in these proposed rules. These problems—including the inadequacy of fines and penalties, severely limited inspection and monitoring capabilities, and the potential for operator error—lead to a greater risk of accidents in the offshore oil industry and should be addressed by Congress as soon as possible. As long as these problems remain, the risk of loss of well control remains unacceptably high, and therefore these well control and BOP requirements are all the more urgent.

Inadequate Fines Incentivize Rule-breaking and Risk-taking

The monetary imbalance between current civil penalties and operating costs is too small to deter risk-taking. In fact, the exceedingly low penalties create a perverse incentive for drillers to violate rules and cut corners, with an emphasis on timely rather than safe operations. While operating costs for offshore rigs can be roughly $1,000,000 per day, fines for violations are capped at $40,000 per violation per day[xxvii], and most violations do not even incur fines. Given this financial environment, it is easy to see why violations are so frequent.

For example, British Petroleum was paying over $500,000 per day to use the *Deepwater Horizon* rig, and total estimated daily operating costs were approximately $1 million.[xxviii] When these figures are compared to a daily maximum fine of $40,000, it is clear that rule-breaking pays. After reviewing several corner-cutting measures taken on board the *Deepwater Horizon* rig, the Joint Investigation Team—consisting of the Bureau of Ocean Energy Management (BOEM) and the Coast Guard—concluded that "the Macondo team made a series of operational decisions that reduced costs and increased risk,"[xxix] demonstrating a willingness to sacrifice safety for quicker project completion.

This situation is exacerbated by the frequent usage of Incidences of Noncompliance (INCs), which can be issued in response to over 800 types of infractions but do not have fines associated with them. Although civil penalties can be assessed for INCs, they must be violations which threaten or damage human life or the environment, or that are not corrected within a specified period of time.[xxx]

Let's look at an example from around the time of *Deepwater Horizon.* In 2009, out of 2,298 INCs issued by the agency, only 87 were referred to the civil penalty process.[xxxi] Penalties assessed by the agency as a result of those 87 referred INCs as of June 30, 2011 amounted to just $2.6 million[xxxii] – less than what it cost British Petroleum to operate the *Deepwater Horizon* for three days. The fact that civil penalties assessed for a year's worth of INCs for the entire offshore oil and gas industry amounted to less than

three days of operating costs for the *Deepwater Horizon* underscores the extreme financial incentive to ignore regulatory compliance and cut corners.

This discrepancy continues to be a major driver of risk for loss of well control. We understand that BSEE cannot address this problem through rulemaking, and we encourage Congress set penalty levels that will discourage risk-taking.

Insufficient Oversight and Inspection Levels

Ensuring the efficacy of existing and new safety regulations, including the Well Control Rule, requires much more oversight than currently exists.

Inspections of offshore facilities in the Gulf of Mexico by the BOEM's parent agencies decreased over the decade preceding the *Deepwater Horizon* accident, in parallel with a shift in drilling to increasingly deeper waters[xxxiii], a frontier area with increased risk.[xxxiv] This decrease was driven in part by a stagnant budget between 2000 and 2009 that failed to keep pace with oil production in the Gulf.[xxxv] Consequently, in 2010 the agency employed just 55 inspectors in the Gulf of Mexico to inspect about 3,000 facilities, a ratio of roughly 1 inspector for every 54 facilities.[xxxvi] This inspection rate was clearly woefully insufficient.

The agency has made some progress over the past five years. According to BSEE's FY16 Budget Justification, the agency's inspection workforce has nearly doubled since 2010, to a total of 110 inspectors in September 2014. In hiring and retaining inspectors, the agency faces considerable challenges because jobs in the oil and gas industry pay considerably higher than federal government jobs.[xxxvii] These 110 inspectors are still spread much too thinly to adequately monitor US offshore oil drilling operations.

With Congress exerting downward pressure on the federal budget, and neither Senate nor House recommending increases in BSEE's Fiscal Year 2016 budget for offshore safety and environmental enforcement,[xxxviii] the agency will be unable to strengthen its inspection and oversight capabilities sufficiently. Consequently, inspection rates remain anemic, undermining regulatory compliance by reducing the odds that violations will be observed. Anemic inspection rates also limit real-time oversight of operations by inspectors, a crucial need to avert disasters since problems are difficult to foresee even a few days before they occur, as illustrated on the *Deepwater Horizon*.

Insufficient inspection rates have a number of consequences for offshore safety. Compliance with regulations suffers, as the probability of regulatory violations being uncovered and penalized is tied to inspection rates. Low inspection rates also reduce the odds that an inspector will be on hand to supervise critical decisions and operations, such as those on April 19th and 20th, 2010, that led to the Macondo blowout. Although Oceana recognizes that the proposed rule would require real-time monitoring for deepwater and HTHP drilling activities, regulators are still far from implementing a robust inspection program.

Remaining Potential for Operator Error

If effective barriers to subsurface pressure and blowout preventer technology are correctly installed, these could in fact protect against blowouts. However, these requirements can easily be undermined by operator error. With limited funds for inspection and oversight, and perverse economic incentives, it is

virtually certain that there will be errors in the design, installation, and operation of these complex technologies.

Improved training requirements mandated by BSEE will reduce operator error, but ensuring that errors are avoided ultimately comes down to inspection and oversight which, as previously discussed, are still woefully lacking.

CONCLUSION

In conclusion, Oceana commends BSEE for the many safety improvements proposed in the draft Well Control Rule. We urge the agency promulgate this rule as soon as possible, and to reduce the compliance periods. Further we urge BSEE to continue to work to improve well control and BOP reliability by requiring redundant blind shear rams and other safety measures.

Even with the implementation of this rule and Oceana's recommendations, offshore drilling will continue to pose a grave threat to humans and the environment. As the *Deepwater Horizon* and the many spills before and after it have demonstrated, offshore drilling is dangerous and harmful to ocean ecosystems, to the human communities that depend upon them, and extremely hazardous to workers in the industry.

For these reasons, Oceana strongly recommends to the Congress and the Administration that offshore drilling should not be expanded into new areas in the Atlantic and Arctic Oceans. While improved safety measures are important, the only way to truly prevent the harm caused by offshore oil spills and accidents is to decrease our dependence on fossil fuels and transition to clean, sustainable renewable energy sources such as offshore wind power.

This concludes my testimony. I look forward to your questions and further discussion.

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[i] Bureau of Safety and Environmental Enforcement and the Department of the Interior, "Proposed Well Control Fact Sheet."
[ii] Bureau of Safety and Environmental Enforcement, "Interior Department Releases Proposed Well Control Regulations to Ensure Safe and Responsible Offshore Oil and Gas Development", April 13, 2015.
[iii] Summary of Information concerning the Ecological and Economic Impacts of the BP Deepwater Horizon Oil Spill Disaster, NRDC issue paper, April 2015. http://www.nrdc.org/energy/gulfspill/files/gulfspill-impacts-summary-IP.pdf
[iv] Oil Spills and Tourism: They Don't Mix, Oceana fact sheet, 2015. http://usa.oceana.org/sites/default/files/tourism_impacts_fact_sheet_9-8-15.pdf
[v] Offshore Energy by the Numbers: An Economic Analysis of Offshore Drilling and Wind Energy in the Atlantic, Andrew Menaquale, Oceana, January 2015.
[vi] Energy Information Administration**,** "U.S. Gulf of Mexico share of global active offshore rigs declines since 2000**"**, September **22,** 2015. https://www.eia.gov/todayinenergy/detail.cfm?id=23032
[vii] UCLA website on California's new rigs-to-reefs law, http://www.environment.ucla.edu/reportcard/article9389.html, also Google map of California offshore oil platforms.
[viii] Bureau of Safety and Environmental Enforcement, "Interior Department Releases Proposed Well Control Regulations to Ensure Safe and Responsible Offshore Oil and Gas Development", April 13, 2015.
[ix] Senator Bob Graham remarks, Co-chair, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, press kit for final report, January 11, 2011.[x] Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, p. ix. http://www.gpo.gov/fdsys/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf
[xi] Bureau of Safety and Environmental Enforcement, OCS Loss of Well Control Incidents (LWC): CY 2008-2015 YTD, *available at* http://www.bsee.gov/Inspection-and-Enforcement/Accidents-and-Incidents/Loss-of-Well-Control/.
[xii] Bureau of Safety and Environmental Enforcement, "Incident Statistics and Summaries, *available at* http://www.bsee.gov/Inspection-and-Enforcement/Accidents-and-Incidents/Listing-and-Status-of-Accident-Investigations/.

[xiii] Draft rule, pp. 21577-8, table describing the BOP requirements. The requirement is for "at least one shear ram" that is capable of sealing the well bore, i.e., one blind shear ram.
[xiv] 80 Fed. Reg. at 21,506.
[xv] 80 Fed. Reg. at 21,506.
[xvi] 80 Fed. Reg. at 21,506.
[xvii] Dysart, Daniel J. "Five Years Post-BP Oil Spill: BSEE Issues Proposed Regulations to Enhance BOP Performance" Oilman Magazine, June 27, 2015. http://oilmanmagazine.com/five-years-post-bp-oil-spill/
[xviii] Kasia Klimasinka, *Revamp to Blowout Devices Two years After BP Weighed by U.S.*, Bloomberg, May 21, 2012. http://www.bloomberg.com/news/articles/2012-05-21/first-change-to-stop-offshore-blowouts-since-bp-weighed-by-u-s-.
[xix] Rowan Jacobsen, *Shadows on the Gulf: A Journey Through Our Last Great Wetland* (2011).
[xx] U.S. Chemical Safety Board Releases Final Investigative Report on 2010 Deepwater Horizon Oil Spill, June 12, 2014.
[xxi] 80 Fed. Reg. at 21,512.
[xxii] 80 Fed. Reg. at 21,529.
[xxiii] 80 Fed. Reg. at 21,512.
[xxiv] 80 Fed. Reg. at 21,511-12.
[xxv] 80 Fed. Reg. at 21,510.
[xxvi] Bureau of Safety and Environmental Enforcement, "Incident Statistics and Summaries, *available at* http://www.bsee.gov/Inspection-and-Enforcement/Accidents-and-Incidents/Listing-and-Status-of-Accident-Investigations/.
[xxvii] See 30 C.F.R. § 250.1403.
[xxviii] Joint Investigation Team. "Volume II: Report regarding the causes of the April 20, 2010 Macondo well blowout." *Report of Investigation*. 14 Sept. 2011. Page 18.
[xxix] Joint Investigation Team. "Volume II: Report regarding the causes of the April 20, 2010 Macondo well blowout." *Report of Investigation*. 14 Sept. 2011. Page 178.
[xxx] Lewis, Wilma A., Mary L. Kendall, and Rhea S. Suh. *U.S. Department of the Interior Outer Continental Shelf Safety Oversight Board: Report to the Secretary of the Interior Ken Salazar.* 1 Sept. 2010. Page 17.
[xxxi] Lewis, Wilma A., Mary L. Kendall, and Rhea S. Suh. *U.S. Department of the Interior Outer Continental Shelf Safety Oversight Board: Report to the Secretary of the Interior Ken Salazar.* 1 Sept. 2010. Page 18.
[xxxii] Penalty data was compiled from BOEMRE's annual reports from 2009, 2010, and the first half of 2011. There were 28 civil penalties assessed in 2009, 2010, and the first half of 2011 for violations incurred in 2009. It is impossible to determine from the annual reports whether the 28 civil penalties covered all or some of the 87 referred INCs. We assume, though, that by June 30, 2011, civil penalties had been issued for most of the INCs for which civil penalties will be assessed. Annual civil penalty reports are available at: "OCS civil/criminal penalties." *BOEMRE*. http://www.boemre.gov/civilpenalties/.
[xxxiii] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling. Report to the President.* 11 Jan. 2011. Page 75.
[xxxiv] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling. Report to the President.* 11 Jan. 2011. Page vii.
[xxxv] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling. Report to the President.* 11 Jan. 2011. Page 73.
[xxxvi] Lewis, Wilma A., Mary L. Kendall, and Rhea S. Suh. *U.S. Department of the Interior Outer Continental Shelf Safety Oversight Board: Report to the Secretary of the Interior Ken Salazar.* 1 Sept. 2010. Page 13.
[xxxvii] Budget Justifications and Performance Information, Fiscal Year 2016, Bureau of Safety and Environmental Enforcement, p. 62, p.33.
[xxxviii] Department of the Interior, Environment, and Related Agencies Appropriations bill, 2016, Report to accompany S. 1645, p. 34.