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Bureau of Safety & Environmental Enforcement (BSEE)
Proposed Well Control Rule

The Interior Department's Bureau of Safety and Environmental Enforcement (BSEE) in April 2015 proposed the sweeping Well Control Rule, a set of complex and highly technical regulations that impose expansive new requirements on offshore oil and gas drilling. The new requirements included in the proposed rule call for far reaching changes to the rules by which the oil and gas operators are governed and would increase costs in a manner that will severely impact Gulf Coast economies.

Findings from a study conducted by international research consultancy Wood Mackenzie confirm that the high cost of a proposed new rule governing oil and gas operations in the Gulf of Mexico could significantly reduce domestic energy production and curtail U.S. economic activity, energy supplies, and state and federal offshore revenues.

The Wood MacKenzie study found that under an $80 oil assumption, comparable to the price assumptions used by BSEE in developing the rule, the Interior Department's draft rule would:

- Decrease exploration drilling by up to 55% or 10 wells annually
- Reduce Gulf of Mexico production by as much as 35% by year 2030
- Result in 105,000 - 190,000 jobs at risk by 2030; this may include jobs beyond the energy sector;
- Most notably, 80% of these jobs could be in Louisiana and Texas.

The Wood Mackenzie study found that the proposed Well Control Rule could significantly reduce rig counts, exploration drilling and ultimately industry investment, which also impacts drilling contractors and service providers. These additional costs may make some exploration and development projects too expensive to pursue, which has far-reaching economic impacts throughout our Gulf Coast communities.

Other significant findings, in an $80 environment, from the study include:

- Reduced industry investment by up to $11 billion annually
- Reduced government tax revenues of up to $5 billion annually through 2030
- Reduction of GDP by a cumulative total of $260-390 billion by 2030

Reduction of lease sale revenues by as much as 40% through 2025.

What's in the Well Control Rule?

The Department of Interior Bureau of Safety and Environmental Enforcement's (BSEE) proposed Well Control Rule (WCR) touches on an array of areas involved in offshore oil and gas drilling. Five areas in particular are affected:

- Drilling Margins
- Casing & Cementing
- Real-Time Monitoring
- BOP Equipment
- BSEE Approved Verification Organizations

What is their role in the drilling process, and how would the WCR impact them as drafted?

Drilling Margin: No two wells are ever the same; each site has unique conditions defined by variations in pressure, the presence (or absence) of hydrocarbons on the way down, and a variety of other factors studied at length in advance by geologists and geophysicists. Then, as wells are drilled, engineers continually incorporate new data into the well design in order to maintain the right level of pressure between the drilling mud they're pushing down the hole and the geological formation that surrounds it. This difference between rock strength and the pressure exerted by the drilling process is the drilling margin.

The 0.5 ppg proposed by BSEE in the WCR is archaic, failing to incorporate many existing technological advances in rock strength prediction and in the drilling fluids used today. Instead, the WCR imposes a one-size-fits-all weight for drilling margins that prevents engineers from adjusting pressures in accordance with the conditions they're finding. Industry's current risk-based approach to drilling margins utilizes new technologies and long-standing operational procedures to safely drill wells that under the new rule would be either operationally or economically infeasible. Of a sample 175 Gulf wells drilled safely by industry since July 2010, 63% could not have been drilled according to the rule's new drilling margin requirements—a dynamic that could prevent future development of known reserves.

Casing & Cementing: When a well is drilled beneath the surface, a protective steel casing is installed in the borehole. Cement is then used to fill the space between the rock formation and the outer wall of the casing. This seals the outside of the casing and establishes well integrity, preventing flow up through the space outside the casing.

The WCR includes requirements to be carried out during the critical process in which the cement has been placed in the well and begins to set or harden. The highly prescriptive guidelines mandated in the rule deviate from current industry accepted practices while failing to take individual well conditions into consideration, making most current cement designs technically impossible to achieve. Experts fear the requirement would actually increase the risk of compromised cement jobs.

Remote Real-Time Monitoring (RTM): RTM technology allows for real-time onshore monitoring of wellsite operations taking place offshore.

While viewed as a helpful business tool or for competency development, RTM technology is by no means a substitute for the situational awareness and onsite expertise of offshore personnel at the scene of wellsite operations. Nevertheless, the WCR would require that offshore operations shut down when RTM communication is cut off, regardless of whether operations are proceeding safely and as planned. Mandating RTM also introduces a new threat associated with cybersecurity issues as data associated with critical safety systems is transmitted without adequate transmission protocols. Regulators have asked the National Academy of Sciences to study this issue; their analysis is not yet complete. An RTM mandate at this point is simply premature.

Blowout Preventer (BOP) Equipment: The blowout preventer is designed to seal a well in the event of a well-control incident, keeping hydrocarbons below the surface from leaking out.

The WCR attempts to improve on already enhanced standards for BOPs that have been utilized since 2010 (instituted in the aftermath of the *Deepwater Horizon* incident). However, in addition to creating a wide range of new technical and procedural requirements related to BOP operations, the WCR adopts a one-size-fits-all standard for BOP equipment to be used in all conditions. This needlessly requires the enhanced requirements for BOPs in non-drilling situations such as during workover work abandonment or intervention work, when there is limited existence of active hydrocarbons. The WCR's one-size-fits-all standard thus does little to improve safety, but is certainly problematic for operations.

BSEE Approved Verification Organizations (BAVO): In an effort to enforce its array of new technical and procedural requirements related to BOP operations, BSEE's WCR calls for newly created BAVOs to verify inspections, maintenance, certifications and changes related to BOP systems.

First and foremost, no BAVOs exist at present, yet the rule mandates compliance with this provision within six months. Equally critical, WCR requirements direct BAVOs to make recommendations on how to improve the fabrication, installation, operation, maintenance, inspection, and repair of equipment—without the engineering basis or data to support such recommendations. This would spark inconsistencies among the verification organizations charged with fulfilling this mandate, creating needless confusion and redundancy with existing third party certifications already required under the regulations.