PROJECT ON GOVERNMENT OVERSIGHT

November 7, 2022

Director Kevin M. Sligh Sr.
Bureau of Safety and Environmental Enforcement
U.S. Department of the Interior
Regulations and Standards Branch
456000 Woodland Road
VAE-ORP
Sterling, VA 20166

Submitted via the Federal E-rulemaking Portal at http://www.regulations.gov

Subject: Comment in response to Proposed Rulemaking: Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Blowout Preventer Systems and Well Control Revisions;
Docket ID: BSEE-2022-0009; EEEE500000 223E1700D2 ET1SF0000.EAQ000;
RIN 1014-AA52

Dear Director Sligh:

The Project On Government Oversight (POGO) submits the following comment in response to the request by the Bureau of Safety and Environmental Enforcement (BSEE) for comment on a new proposed rulemaking, published in the Federal Register on September 12, 2022.[1] The final rule will revise certain provisions that had been published in the 2019 final Well Control Rule (WCR) to clarify blowout preventer (BOP) system requirements and to modify certain specific BOP equipment capability requirements. We appreciate the opportunity to weigh in on this important rulemaking.

POGO is a nonpartisan independent watchdog that investigates and exposes waste, corruption, abuse of power, and when the government fails to serve the public or silences those who report wrongdoing. We champion reforms to achieve a more effective, ethical, and accountable federal government that safeguards constitutional principles.

Since 2018, we have published seven investigations and an analysis into federal offshore drilling safety. They include POGO's observations and recommendations that caution against the safety rollbacks that had been proposed in the 2019 WCR. POGO supports addressing weaknesses in the 2019 WCR, and provides information on how to do so below.

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[1] Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Blowout Preventer Systems and Well Control Revisions, 87 Fed. Reg. 56354, 56354-56365 (September 14, 2022), https://www.federalregister.gov/documents/2022/09/14/2022-19462/oil-and-gas-and-sulfur-operations-in-the-outer-continental-shelf-blowout-preventer-systems-and-well.

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- **Improve BOP system requirements.** In 2018, POGO explained how existing requirements did not ensure that blowout preventers were capable of containing a blowout in all circumstances.[2]

- **Require failure analyses and investigations to start within a shortened timeframe.** The proposed rule change would "ensure that the operator starts a failure investigation and analysis within 90 days of the failure instead of within 120 days."[3] In the 2018 investigation, POGO reported that failure analyses are not always preformed on schedule, or as required.[4] It is critical to understand the root cause of failure in order to prevent reoccurrence.[5]

- **Require accreditation of independent third-party investigator qualifications.** The proposed rule change would "require independent third parties to be accredited by a qualified standards development organization."[6] In the 2018 investigation, POGO illustrated, with a variety of examples, why key information about the equipment should be inspected by third parties who are accredited.[7]

- **Establish dual shear ram requirements for surface BOPs on existing floating facilities when an operator replaces an entire surface BOP stack.** The proposed rule change would require an operator to "follow the BOP requirements of §250.734(a)(1) when replacing an entire surface BOP stack on an existing floating production facility."[8] In 2018, POGO reported on the importance of ram design and ram testing and discussed the importance of sheer ram redundancies.[9]

- **Require submittal of certain BOP testing results if BSEE is unable to witness testing.** The proposed rule change would "require the operator to provide test results to BSEE within 72 hours after completion of the tests if BSEE is unable to witness

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[2] David S. Hilzenrath, "Rollback: The Trump Administration Proposes to Thin Offshore Drilling Safety Rules," Project On Government Oversight, December 6, 2018, https://www.pogo.org/analysis/2018/12/rollback-the-trump-administration-proposes-to-thin-offshore-drilling-safety-rules#heading-0.
[3] Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Blowout Preventer Systems and Well Control Revisions [See note 1]
[4] David S. Hilzenrath, "Rollback: The Trump Administration Proposes to Thin Offshore Drilling Safety Rules" [See note 2]
[5] David S. Hilzenrath, "Rollback: The Trump Administration Proposes to Thin Offshore Drilling Safety Rules" [See note 2]
[6] Department of the Interior, "Interior Department Takes Steps to Strengthen Offshore Safety Standards," Press Release, September 12, 2022, https://www.doi.gov/pressreleases/interior-department-takes-steps-strengthen-offshore-safety-standards.
[7] David S. Hilzenrath, "Rollback: The Trump Administration Proposes to Thin Offshore Drilling Safety Rules" [See note 2]
[8] Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Blowout Preventer Systems and Well Control Revisions [See note 1]
[9] David S. Hilzenrath, "Rollback: The Trump Administration Proposes to Thin Offshore Drilling Safety Rules" [See note 2]

> testing."[10] In 2018, POGO reported that even if BSEE is unable to witness the testing, it should add — not remove — important potential sources of accountability.[11]

We have included our analysis and investigations in the attached enclosures.

Thank you for your consideration of this comment. If you have any questions, please contact me at joanna.derman@pogo.org.

Sincerely,

Joanna Derman
Policy Analyst

Enclosures: 8

[10] Department of the Interior, "Interior Department Takes Steps to Strengthen Offshore Safety Standards" [See note 6]
[11] David S. Hilzenrath, "Rollback: The Trump Administration Proposes to Thin Offshore Drilling Safety Rules" [See note 2]

Interior’s Rollback Includes Surprise Gift to Oil Industry

pogo.org/investigation/2019/05/interior-rollback-includes-surprise-gift-to-oil-industry

By David S. Hilzenrath | Filed under investigation | May 14, 2019

(Photo of Deepwater Horizon: U.S. Coast Guard; illustration: CJ Ostrosky / POGO)

The Trump Administration’s long-anticipated, recently completed rollback of offshore drilling safety standards includes a surprise gift to the oil and gas industry—one whose late addition to the regulatory overhaul could be vulnerable to a legal challenge, according to legal scholars.

The Project On Government Oversight previously reported that the Administration was proposing to adopt safety standards written and copyrighted by the American Petroleum Institute (API), a lobbying group for the fossil fuel industry.

However, the final version of the regulatory overhaul unveiled on May 2 incorporates an API document that was not included in the draft issued for public comment last year.

The document, called “API Bulletin 92L,” would enable energy companies to continue drilling in situations where they otherwise would be required to suspend drilling—situations in which they are unable to keep the pressure in the well within a prescribed range known as the safe drilling margin.

The API and several other industry groups last year asked the Interior Department to grant drillers that option. At times, “drilling ahead . . . may be the safest option to restore the integrity of the well rather than suspending drilling operations altogether to remedy the situation,” they wrote in a joint letter.

The public was deprived of a meaningful opportunity to weigh in on the Interior Department’s adoption of the API bulletin, said Nina A. Mendelson, a University of Michigan law professor who does research on administrative law and formerly worked in the Justice Department’s Environment and Natural Resources Division.

“I think there are reasonably strong grounds for challenge here,” Mendelson said.

“A court could set aside the rule in whole or in part,” Mendelson said. “It could also remand the offending portion of the rule to the agency to revise but leave the rule in place in the meantime.”

The safe drilling margin was intended to avoid pressure imbalances that can lead to blowouts and other problems. It was part of a federal rule known as the Blowout Preventer Systems and Well Control rule adopted by the Obama Administration in 2016 in response to the 2010 Deepwater Horizon disaster.

The Trump Administration this month finished rewriting that rule, saying it was trying to remove requirements that imposed unnecessary burdens on industry.

The Interior Department’s final rewrite incorporates API Bulletin 92L “by reference,” meaning it gives the bulletin the force of law but does not include the text of it in the federal regulation.

As POGO reported last year, the government’s practice of giving standards written by industry the force of law without publishing the text of those standards for all to see can make it difficult or costly for members of the public to find out what federal regulations actually mean.

If you’re willing to create an online account with API and agree to its conditions, you can view a read-only copy of API Bulletin 92L for free on the API website. API sells printable copies of the bulletin for $70.

The fact that the bulletin was not listed in last year’s notice of proposed rulemaking as one of the industry standards the Interior Department was proposing to adopt could make its inclusion in the final rule vulnerable to a legal challenge, said Peter L. Strauss, an emeritus professor at Columbia Law School who specializes in administrative law.

To prevail, anyone challenging Interior’s use of the bulletin would have to show that the lack of notice impaired their ability to comment on the proposed rule change, Strauss said.

“This whole process is so covert it totally defeats the concept of notice-and-comment rulemaking,” Strauss said.

The Trump Administration has pursued a deregulatory agenda on a variety of fronts involving energy and the environment. However, many of the Administration’s proposed rule changes have been tripped up by lapses in the rulemaking process, including what courts have found were violations of the Administrative Procedure Act.

The Obama Administration’s well control rule said that if drillers could not stay within the safe drilling margin, they were required to suspend drilling and remedy the situation. The Trump Administration’s final rule offers an alternative. It says drillers must either suspend drilling and submit proposed remedies to a federal regulator or notify the regulator “and take further action in accordance with API Bulletin 92L.”

The API bulletin includes decision trees spelling out different courses of action—when drillers should stop drilling, when they should continue normal operations, when they should file a new drilling plan with regulators, and when they should continue drilling for a limited distance such as 300 feet while notifying regulators.

“Depending on the situation operators may have to stop drilling . . . or contact the regulator and drill ahead no more than 300 ft,” the final rule explains.

The bulletin is titled, “Drilling Ahead Safely with Lost Circulation in the Gulf of Mexico.” The term “lost circulation” refers to the migration of fluid from the well into the surrounding geologic formation, a phenomenon that can render a well dangerously unstable. The bulletin says lost circulation “has been safely managed during routine well construction operations for many years in both deepwater and shelf GoM wells.” The acronym GoM refers to the Gulf of Mexico.

The document says its decision trees “depict common scenarios of lost circulation specifically addressing issues for both OCS [Outer Continental Shelf] and Deepwater GoM wells.” The document also says methods used to manage lost circulation are based on well location and geology, among other factors.

Despite the document’s title and the fact that it focuses mainly on geology and drilling experience in the Gulf, the Trump Administration’s rule apparently would have drillers follow it elsewhere.

Meanwhile, the Trump Administration has been planning to expand drilling in the Atlantic and Pacific and off the coast of Alaska.

Though the notice of proposed rulemaking the Interior Department published in May 2018 did not say the Department planned to give the API bulletin the force of law, it did indicate that the Department was considering loosening restrictions associated with the safe drilling margin.

For example, it invited public comment on “whether there are situations where drilling can continue prior to receiving” government approval to deviate from the prescribed drilling margin.

Spokespeople for API and the Bureau of Safety and Environmental Enforcement, the Interior Department unit responsible for the regulatory overhaul, did not respond to questions for this story.

When the government incorporates industry documents by reference in federal regulations, the Office of Management and Budget has said it prefers documents developed through a “consensus” process. That’s one that includes openness and an airing of objections by interested parties, much like the government’s own rulemaking process.

API Bulletin 92L does not fit that description, the Interior Department said in the final rule.

The document “is appropriate for incorporation into the regulations, even though it is a non-consensus developed bulletin,” Interior said.

When All Hell Breaks Loose: Years After Deepwater Horizon, Offshore Drilling Hazards Persist

pogo.org/investigation/2018/12/when-all-hell-breaks-loose-years-after-deepwater-horizon-offshore-drilling-hazards-persist

How critical safety systems can break down

By David S. Hilzenrath | Filed under investigation | December 06, 2018

They are known as the "last line of defense" against an offshore drilling blowout and uncontrolled spill. They are supposed to save the lives of oil workers and protect the environment.

But, as the Trump Administration proposes weakening safety requirements for these critical defenses, a Project On Government Oversight investigation found that they are dangerously vulnerable to failure.

In an emergency, the defenses known as "blowout preventers" are meant to choke off the flow of highly pressurized gas and oil rising through well pipes from deep beneath the ocean floor.

However, far from being fail-safe, blowout preventers have failed in myriad and often unpredictable ways. So have the people responsible for maintaining and operating them.

Bolts mysteriously break. Seals leak. Components get clogged. Torrents of gas and sand rip through steel. Design defects surface years after devices are put to work. Inspectors allegedly cut corners on inspections. Energy companies falsify safety tests. Operating instructions that leave little margin for error collide with messy and overwhelming forces.

One might take comfort in the fact that, since the Deepwater Horizon disaster of 2010, when the blowout preventer on which BP was depending failed catastrophically, there has been no offshore drilling calamity of comparable scale.

But it seems a stroke of luck—or a streak of luck—that disasters haven't happened more frequently.

That's the picture that emerges from federal data, offshore safety records, and other government files on developments since the Deepwater Horizon rig exploded in the Gulf of Mexico.

In 2017, operators of drilling rigs in the Gulf reported 1,129 equipment failures involving blowout preventers, according to the U.S. Department of Transportation. Failures were reported on more than three-quarters of the rigs operating in the Gulf at the time.

Those malfunctions were generally detected under the calmest of circumstances—for example, during tests and inspections.

Reality can be less forgiving. When a blowout preventer is needed most—when a well is erupting with explosive force, catching a crew off-guard, spewing oil or gas, setting the rig aflame, showering workers with debris, and generally causing chaos—the equipment could be hardest to deploy.

The Deepwater Horizon's blowout preventer looked formidable. Resting on the sea floor, it stood about five stories tall and weighed about 400 tons. It was equipped with hydraulically powered devices meant to cut the piping that passed through it and seal the well. It had six redundant means of activating a key component, and there were similar redundancies in the systems meant to ensure it was in working order, a 2011 study by the UC Berkeley-based Center for Catastrophic Risk Management said.

In April 2010, the study noted, all of those systems failed. Eleven people were killed, and oil gushed into the Gulf for months. It killed wildlife, fouled the coastline, contaminated fisheries, damaged local economies, cost people their livelihoods, and even disrupted the energy industry.

BP reported that, as of the end of 2017, its own costs and liabilities from the spill—which are only a part of the economic toll—had reached $65.8 billion.

The rig's blowout preventer wasn't designed to handle the conditions it encountered, according to scientific analyses conducted since the disaster. For example, a 2012 study by the National Academies found that the "blind shear ram," a component meant to cut and seal well pipe, "was not designed to shear all types and sizes of pipe that might be present."

Similarly, a 2014 study by the U.S. Chemical Safety and Hazard Investigation Board, which investigates industrial accidents, found that the blind shear ram wasn't designed to cut pipe that was buckled or off-center. Not surprisingly, when the well that BP was drilling blew out, the pipe was neither straight nor perfectly centered in the well.

Timeline

- April 20, 2010

  Deepwater Horizon disaster

  While drilling the Macondo well for BP, the Deepwater Horizon rig explodes in the Gulf of Mexico. Five months later the well was sealed and declared "effectively dead."

- September 30, 2010

  New drilling safety rule

  The Interior Department announces a new Drilling Safety Rule that includes tougher requirements for operators.

- October 1, 2011

  New safety office created

  The Bureau of Safety and Environmental Enforcement (BSEE) is created as part of a reorganization of Interior's oversight of natural resources. BSEE is responsible for offshore safety and environmental protection.

- December 18, 2012

  Discoverer India spill

  While the Transocean Discoverer India rig is drilling in the Gulf of Mexico, the upper part of its blowout preventer stack separates from the lower part as a result of bolt failures. About 432 barrels of drilling fluids are released into the Gulf of Mexico.

- July 23, 2013

  Hercules Rig 265 blowout

  Hercules Rig 265, drilling a well for Walter Oil & Gas Corp. in the Gulf of Mexico, experiences a blowout.

- April 29, 2016

  New blowout safety rule

  BSEE finalizes the Blowout Preventer Systems and Well Control Rule, which it proposed on April 17, 2015. Most of the rule takes effect on July 28, 2016.

- April 28, 2017

  President Trump orders rollback of safety rule

  President Trump issues Executive Order 13795 directing the Secretary of the Interior to reconsider the Blowout Preventer Systems and Well Control Rule as part of "an America-First Offshore Energy Strategy."

- June 7, 2017

  Don Taylor leak

  Drilling fluid leaks from the blowout preventer of the Noble Don Taylor drillship. Investigators find the blowout preventer had a broken seal and internal damage.

- May 11, 2018

  BSEE proposes revised safety rule

  BSEE publishes a notice of proposed rulemaking to revise the Blowout Preventer Systems and Well Control Rule. The proposed regulations rely on standards written by API, an industry group.

- September 28, 2018

  One rollback finalized, another pending

  The Trump Administration takes another step toward easing safety requirements by revising regulations for certain offshore drilling production safety systems. As of December 6, 2018, the Administration's plan to revise the Blowout Preventer Systems and Well Control Rule was still pending finalization.

After the Deepwater Horizon disaster, the government tightened requirements for blowout preventers. Now, the Trump Administration is preparing to loosen them. The Administration says the aim of its proposal is boosting energy production and "reducing unnecessary regulatory burdens."

The Administration is also planning to open vast new areas to offshore drilling, including Arctic waters where extreme weather, remote locations, and sea ice could make the response to a blowout much more difficult.

As a backdrop for those developments, drilling has been advancing to deeper water, deeper wells, and higher extremes of temperature and pressure.

The records POGO reviewed tell a cautionary tale.

As the stakes get higher, and as memories of the Deepwater Horizon fade, blowout preventers—also known as "BOPs"—may provide a false sense of security, leaving offshore workers, coastal economies, and the environment at risk.

The Trump Administration's plan to ease safety requirements would place even greater faith in technology that is inherently risky.

Robert G. Bea, an emeritus professor of engineering who led the UC Berkeley study of the Deepwater Horizon blowout, told POGO that if a commercial jetliner was only as reliable as a blowout preventer, “I wouldn’t get on that damn airplane if you made me.”

Bea, who began his career as a drilling rig roughneck and served as an expert witness against BP in litigation over Deepwater Horizon, said people “should have very low confidence . . . that a blowout preventer will stop a loss of well control.”

In areas vulnerable to an oil spill, some see the proposed reversal of safety rules as a misguided concession to oil companies.

“Have we learned nothing from the worst environmental disaster in American history?” Representative Vern Buchanan (R-FL), co-chair of Florida’s Congressional delegation, asked in an April 2018 news release.

“These safeguards should remain in place,” Buchanan added.

Blasted

On the morning of July 23, 2013, off the coast of Louisiana, aboard a rig known as Hercules 265, a rush of natural gas surged through the open blowout preventer, catching the crew by surprise.

According to a July 2015 government report on the incident, no one on the rig recalled hearing an alarm. As crew members struggled to respond, zinc bromide fluid that had been used in the well rained down on them, burning their skin and eyes. The noise from the blowout “was great enough to make verbal communication difficult.”

The owner of the rig, Hercules Offshore Inc., had a protocol for such situations—a sequence of steps to activate different components of the blowout preventer and close the well—but under the circumstances the crew was unable to follow it, the report said. Part of the trouble was that the blowout was pushing the pipe out of the well, “making it impossible to position the pipe so that the safety valve could be stabbed.”

The senior Hercules manager on board directed crew members to wake all hands and have them prepare to abandon the rig. Then he tried to shut the well by activating the BOP’s “pipe rams,” mechanisms meant to stop a leak. The flow from the well momentarily subsided—and then “quickly strengthened,” the report said.

As a last resort, the manager tried to deploy the BOP’s “blind shear rams,” which are meant to cut through the steel well pipe.

Again, the flow subsided briefly and then intensified.

“Despite attempts to control the well with the BOP, the natural gas continued to flow, forcing the rig crew of 44 to evacuate using the rig’s life boats,” the report recounted.

“The uncontrolled flow of flammable natural gas from the well continued for over thirteen hours, before igniting and burning for another two days,” the report said.

“The prolonged burning ultimately led to bending of the steel beams that supported the drill floor and derrick”—a tower-like structure—“which was directly over the well. The derrick and significant portions of the drill floor collapsed into the water, with the remainder of the Hercules 265 sustaining heat and smoke damage.”

Photos of the rig show a scorched and twisted hulk. Crew members suffered what the report described as “minor injuries.”

The blowout could have been worse. A buildup of sediment in the well eventually stopped it. Then, a relief well was drilled to bleed the pressure and establish control.

However, a 2014 analysis commissioned by the operator of the well, Walter Oil & Gas Corp., drew troubling conclusions.

The gas flowing through the blowout preventer at high velocity carried with it sand, which eroded the insides of the BOP, carved holes in it, and rendered it useless.

What’s more, the BOP could have been crippled by a loss of fluid pressure in the hydraulic system used to control it, the analysis found.

The analysis, which was cited by the government in its July 2015 report on the incident, summed it up this way:

“It is believed that . . . high pressure in the well and a loss of hydraulic closing pressure would have allowed the blind shear rams to begin to leak continuously . . . if they had successfully sealed.”

The analysis added, “Gas moving through a small opening at sonic velocity and carrying sand is known to cause very high erosion rates that can cut through steel in a short period of time.”

In other words, the BOP was vulnerable to the very forces it was meant to control.

“In many cases, if you follow the rules and the codes you actually won’t be able to close the well,” said Glen Stevick, a mechanical engineer who served as blowout preventer expert on the forensic team.

Walter Oil & Gas Corp. did not respond to phone calls and emails for this story. Hercules Offshore Inc. is no longer in business.

Roger L. McCarthy, a member of the National Academy of Engineering, noted that the Hercules incident involved a gas well and a BOP mounted on the rig. Erosion would occur faster under those circumstances than in an oil leak involving a BOP on the sea floor, he said.

But wherever the BOP is located, the combination of flowing fluid and abrasive material like sand would be cutting, said McCarthy, who has investigated mechanical disasters such as the Deepwater Horizon blowout.

"If you fail to completely shear and seal one of these high-pressure oil streams enough to keep the flow down to a minimal level," he said, then, eventually, "the flow is going to eat you alive."

"Known Hazard"

In a crisis, people and equipment don't always perform in textbook fashion. BOPs are no exception.

"Improper operation and maintenance of . . . controls is a known hazard to proper blowout preventer function that has been identified by industry in prior well control events," the analysis of the Hercules blowout said.

The government panel that investigated that incident zeroed in on the speed of the crew's reaction.

"The Panel found the actions to close the rams came too late; by the time the attempt to close was made, the well was already flowing at a pressure exceeding the BOP's capabilities," the panel reported.

Even during routine operations, complacency, carelessness, and corner-cutting can make an inherently risky business more dangerous. Those are some of the reasons BOPs are regulated and safeguards were tightened after the Deepwater Horizon disaster.

The lack of knowledge and experience of rig workers are additional problems.

"You have people offshore who are charged with doing maintenance on these pieces of equipment, and they are not always doing the job correctly because their skill set is not up to it," said Don McClelland, chief technical officer at Offshore Inspection Group, a firm that inspects blowout preventers and other equipment for industry clients. "You may be playing Russian Roulette."

The BOP on the Hercules rig failed part of a federal inspection about a month before the July 2013 blowout. According to the 2015 government report on the incident, the Interior Department's Bureau of Safety and Environmental Enforcement (BSEE, pronounced

“Bessie”) issued a citation to Walter Oil & Gas for not having “adequate documentation” of a high-pressure test that was supposed to have been performed.

But days before the blowout, the rig emerged from another inspection with no demerits, the report said. As far as BSEE investigators could determine, at the time of the blowout, the BOP on the Hercules rig was in compliance with federal requirements.

Changing the Rules

In September, the Trump Administration relaxed some safety standards governing valves and other equipment used in underwater wells.

For example, federal regulations had required that an independent third party certify that the equipment would function under the most extreme conditions to which it might be exposed. The Administration eliminated the requirement for third-party certification and it deleted from design requirements the wording about functioning under the “most extreme” conditions.

That step seemed merely a warm-up for a more sweeping plan to roll back rules adopted in 2016 in response to the Deepwater Horizon disaster. The bigger proposal by BSEE, which focuses on “blowout preventer systems” and “well control,” is awaiting final action.

The proposal will give oil companies more latitude, David Pritchard, a petroleum engineer who specializes in drilling hazards management, told POGO. “I think it’ll give the industry license to pretty much do as they please and bend the rules—whatever’s left—how they wish,” Pritchard said.

The Administration’s notice of proposed rulemaking shows that it is planning or considering changes that would thin one layer of protection after another.

First, the Administration is considering eliminating a requirement that drillers operate within a prescribed safety margin. That requirement is meant to regulate the pressure in the well and avert the kind of accident that could require use of the blowout preventer.

Second, the proposed overhaul of the rules could weaken onshore monitoring of drilling operations, which is meant to help detect problems before they escalate into blowouts.

Third, the proposal could relax certain technical specifications for blowout preventers—what features they are supposed to have, how they are supposed to work, and what they are supposed to be able to handle.

Fourth, it could weaken testing and inspection requirements meant to make sure that blowout preventers are in working order.

Fifth, it would gut a requirement that drillers have specific equipment on hand to contain a spill in the event the blowout preventer fails to contain a well.

And, sixth, it could weaken a requirement that drillers study and learn from BOP failures.

For instance, when it comes to the equipment's capabilities, the BOP installed on any well is supposed to be able to withstand the maximum anticipated pressure. Some BOPs are now intended to handle anticipated pressures as high as 20,000 or 25,000 pounds per square inch. To make sure BOPs can perform as expected, current federal rules call for them to be subjected to a variety of pressure tests.

The Administration's proposal would lower the pressure on two such tests to 1,000 psi, which is a fraction of the pressures involved in past incidents.

According to the national commission that investigated the Deepwater Horizon disaster, months after the explosion, after the gusher was finally capped, pressure in that well was logged at 6,920 psi.

During the 2013 blowout that set fire to the Hercules rig, the pressure in the BOP rose to more than 4,000 psi, the July 2015 government report said.

And, in January 2017, when the casing burst in a well operated by Fieldwood SD Offshore LLC, "the estimated internal pressure on the 16" casing exceeded 2000 psi," a BSEE investigation found. A contributing cause of the accident, BSEE reported, was that "BOP's [sic] and casing were only tested to 1000 psi."

Fieldwood Energy spokesperson Kevin Bruce told POGO that the test pressure of 1,000 psi was higher than the expected pressure in the well—"five times the Maximum Anticipated Surface Pressure of 200 psi for this well."

BSEE's report describes it differently. "[T]he maximum anticipated surface pressure (MASP) was 1236 psi," the report says.

Bruce also said by email that the BOP performed as it was supposed to and that pressure spiked in the well because a valve was set improperly. "This is a case of human error, not equipment failure," he said.

In addition to reducing test pressures, the Trump Administration's proposal would shorten key pressure tests.

Where the Obama Administration's "Blowout Preventer Systems and Well Control" rule said blowout preventers had to withstand certain tests at high pressure for 30 minutes, the Trump Administration would shorten those tests to 5 minutes.

“That’s absurd,” McClelland of Offshore Inspection Group said. “I mean, five minutes is nothing, really.”

“That’s not long enough to test something,” he said. “You don’t know if it’s going to hold.”

To put five minutes in context, in the Hercules incident, there was a lull of 14 minutes after BOP components were activated, the investigation commissioned by Walter Oil & Gas Corp. found. Then the blowout continued unchecked.

Further, where the Obama Administration required that, if regulators are unable to observe tests firsthand, the test results must be submitted to the government, the Trump Administration would erase that requirement. Eliminating the requirement would ease regulators’ workload, the Trump Administration has explained in its notice of proposed rulemaking.

The Trump Administration’s proposal would also tweak wording in potentially important ways.

Under current rules, companies applying for a permit to drill must state how their BOP would “achieve an effective seal of each ram BOP.” Under the Trump Administration’s proposal, the wording “achieve an effective seal of each ram BOP” would be changed to “close each ram BOP,” which could amount to something short of containing the well.

Those are a sampling of the proposal’s many provisions. *(For more detail, see related story.)*

The Administration estimates that, over the next 10 years, the proposed changes to federal regulations would save industry more than $900 million.

In an official public notice laying out its proposal, BSEE made clear that it was taking its cue from industry. Since the 2016 regulations took effect, “oil and natural gas operators have raised various concerns” about provisions “that impose undue burdens,” BSEE explained.

The Administration’s proposal largely tracks a wish list the American Petroleum Institute (API) and six other industry groups presented to the Interior Department in 2017. It is part of the Administration’s broader program of support for the fossil fuel industry.

Paradigm Shift

On April 28, 2017, President Trump issued an executive order directing his Interior Secretary, Ryan Zinke, to reconsider the Obama Administration’s blowout preventer and well control rule as part of “an America-First Offshore Energy Strategy.” Within the Interior Department, that task fell to BSEE.

The politically appointed director of BSEE, former Louisiana state government official Scott Angelle, served on the board of an oil pipeline company. In a September 2017 speech, he told members of the Louisiana Oil & Gas Association that BSEE was changing its posture toward industry—moving "from an era of creating hardships to an era of creating partnerships."

Angelle encouraged members of his audience to contact him directly. From the podium, he gave out his work cell phone number but warned, "Everything that you send me by text is a public record . . . so be cautious." He also gave out his personal cell number, inviting industry members to use it for matters that are not business-related "and you don't want in the public record." POGO obtained a video of the speech in December 2017 through the Freedom of Information Act.

The Administration says its proposed overhaul of BOP rules "will not materially affect the economy nationally or in any local area." That assessment puts any potential economic benefit in perspective, suggesting that, in the scheme of things, there's no big economic upside.

The Administration also says its proposal would not cause "a major increase in costs" for consumers; federal, state, or local governments; or regions of the country.

That assessment does not appear to take into account the potential costs of a disaster. An uncontrolled oil spill could affect coastal economies and industries such as fishing and tourism—not to mention the energy industry itself, especially if, like the Deepwater Horizon disaster, the spill leads to a pause in drilling.

BSEE is assuming no disaster will result. It says its proposal "would not increase the safety or environmental risks" of offshore drilling. If the Administration is wrong about that, the costs to industry and the public could greatly exceed the projected $900 million of savings—even in strictly economic terms.

BP, the giant oil company that shared liability for the Deepwater Horizon spill, reported that, as of the end of 2017, the damages and other costs it had incurred or expected to incur from the deadly disaster had reached $65.8 billion.

The proposed rule changes amount to a paradigm shift in safety regulation, said Najmedin Meshkati, an engineering professor at the University of Southern California who worked on the National Academies investigation of the Deepwater Horizon disaster. Where current rules prescribe specific mechanical requirements, under the proposed rules the government would set performance goals and, to a greater extent, trust industry to figure out how best to meet the goals, Meshkati said.

That approach—which is known among specialists by the term "safety case"—works only if industry has a strong safety culture, Meshkati said. It also imposes much heavier demands on regulators, Meshkati has written. Compared to the current approach to oversight of offshore drilling, it calls for more staff and greater sophistication, Meshkati said.

Opening more coastal waters to drilling and at the same time loosening safety regulations "could be a recipe for disaster," Meshkati said.

The government has a history of deferring to industry on offshore drilling safety. In the years before the BP oil spill, the industry contended that blowout preventers were more reliable than regulators recognized and that they needed less frequent pressure testing, a national commission that investigated Deepwater Horizon recounted. The government "conceded and halved the mandated frequency of tests," the commission reported. In the run-up to the Deepwater Horizon blowout, the commission added, the government refrained from revising the rules even after a series of studies warned of potential BOP failures.

More recent history gives more reason to doubt both the regulators and the regulated.

In May 2012, at a forum BSEE held on blowout preventers, the National Academy of Engineering's McCarthy made a basic observation: "If these things are going to be expected to work under conditions where all hell is breaking loose, they have to be tested in conditions that simulate all hell breaking loose."

Three years after that forum and five years after the Deepwater Horizon disaster, a study commissioned by the federal government found that wasn't happening.

The May 2015 study, conducted by the firm Wood Group Kenny, focused on blind shear rams, the BOP mechanisms of last resort. It examined whether blind shear rams were tested to withstand not just high pressures but also the "high velocity fluid effects . . . that are encountered during a blowout scenario." In other words, forces to which the rams could be exposed if other BOP components had not already choked off oil, gas, water, sand, and other potentially abrasive material flowing from the well.

The study described those as "Macondo conditions," referring to the Macondo well that the Deepwater Horizon was drilling when it exploded.

Among the study's findings:

BOP manufacturers "state that the shear rams are not designed for flowing well conditions."

"The industry has conducted no tests to evaluate the flowing fluid effect on the shearing process."

Testing facilities "may be unable to replicate the high flows and pressures observed during the Macondo incident."

The following year, in rules adopted in response to Deepwater Horizon, BSEE said BOP systems must be capable of closing and sealing the "wellbore"—the hole drilled in the earth —"at all times, including under anticipated flowing conditions." Now, BSEE is proposing to delete from that rule the words "at all times." BSEE is proposing to say instead that BOPs must be capable of closing and sealing the wellbore "in the event of flow due to a kick," meaning an unexpected burst of oil or gas.

The 2016 rules also said BOPs must be able to seal the well "without losing . . . sealing integrity due to the corrosiveness, volume, and abrasiveness of any fluids in the wellbore."

POGO asked BSEE and the American Petroleum Institute how if at all the realities have changed since the 2015 study spotlighted shortcomings in shear ram design and testing. POGO also asked them to what extent BOPs currently in use are able to meet the 2016 requirement, and what changes BOPs have undergone to meet the requirement. They did not respond to those or other written questions and did not grant interviews for this report.

"Industry is focused on effectively managing risk and ensuring the safety of workers and the environment while also fostering robust offshore development that's critically important to the nation's future," Erik Milito, who handles regulatory and legislative matters for API, said in a statement API provided for a story POGO published in August.

"The U.S. oil and natural gas industry is well regulated, and our industry supports smart, effective regulation," Milito added.

Oil companies, offshore drilling firms, and manufacturers of drilling equipment contacted for this report almost all declined to comment, did not respond to messages, or did not follow up. For example, at Chevron, spokesperson Veronica Flores-Paniagua referred POGO to API. At Schlumberger, whose Cameron subsidiary makes BOPs, spokesperson Joao Felix said by email that Cameron is contributing information on blowout preventers to a report for the Interior Department on development of the Arctic.

"I would recommend that we wait until this report is publicly issued before we provide you with an interview or any additional information," Felix said.

Companies that did not respond included BP and another central player in the Deepwater Horizon disaster, Transocean.

Blowout preventers don't tell the whole story of offshore hazards. Since the Deepwater Horizon disaster, BSEE has logged thousands of "incidents" in U.S. waters, some of them fatal. They range from fires and explosions to gas releases and industrial injuries. But BOPs are more than just critical in their own right. They illustrate the risky interplay of technology, safety rules, and human factors on which offshore drilling depends.

Nuts and Bolts

On December 18, 2012, while a rig called the Discoverer India was going about its drilling routine in the Gulf of Mexico, its colossal blowout preventer split in two.

The upper portion of the rig's BOP stack separated from the lower part, releasing drilling fluid into the ocean, according to a BSEE report.

The explanation could hardly have been more mundane.

Chevron, which was operating the rig, told regulators that bolts holding the two pieces of equipment together had failed, the BSEE report said.

There were 36 of the bolts. They were big—about nine inches long and about two inches in diameter. They were four or five years old at the time, and they all cracked, according to the BSEE report and a 2018 account of the incident by the National Academies.

The Discoverer India belonged to Transocean, the same company that owned the Deepwater Horizon.

Bolt failures soon followed on two other rigs, the Discoverer Americas and the Petrobras 10,000, prompting a recall in which manufacturer GE Oil and Gas issued 10,982 replacement bolts.

Then, in June 2014, on a rig called the West Capricorn, a worker grabbed hold of one of the studs used to fasten the BOP—"and noticed that it moved," according to a study cited by the National Academies. Nine such studs were found to be fractured, the study said. Until the accidental discovery, the fractures had gone undetected.

In early 2016, BSEE's then-director, Brian M. Salerno, sent the oil and gas industry a call to action. "Although progress is being made in addressing these safety issues," Salerno wrote, "I am concerned that industry is not moving quickly enough given the potential for catastrophic failure."

Bolts had been failing since 2003, and the problems involved bolts made by three different manufacturers, Salerno wrote.

In August 2016, Salerno convened a forum on bolt failures, warning, "[I]t may only be a matter of time before our luck runs out."

Salerno said BSEE by then knew of about a dozen cases in which bolts had failed, but added that "no one really knows the full extent of the problem."

Another speaker at the forum, BSEE's Joe Levine, said that, before the rash of bolt failures, when looking at a $500 million BOP, he had never given any thought to its connectors. "Now, today, I certainly don't see a connector as inconsequential or insignificant," Levine said. "I see it as critical piece of hardware which is really the Achilles heel of this critical piece of equipment.”

“If it’s not functioning right, if it’s not manufactured correctly, all it takes is a couple of those and we can have another Macondo,” he said.

The government commissioned the examination of bolt failures by the National Academies, which completed its report this year. In the end, mysteries remained. The “lack of knowledge” about the root cause of some failures “is cause for concern,” the report said.

Among other recommendations, the Academies called on the oil and gas industry to promote “an enhanced safety culture.”

“Complete bolting failures have been historically rare events, but how many near misses and incipient failures remain undiscovered is unknown,” the Academies said.

There is “no industry wide program to find bolts that are failing, or have failed and are just held in place by gravity,” the Academies said.

The oil and gas industry says it has been taking voluntary steps to address the problem. In an August 2018 letter to BSEE, the American Petroleum Institute gave an update on what it called the industry’s “significant progress.” The update explained how the industry had been studying the susceptibility of bolt materials to “embrittlement,” writing standards, conducting preventive maintenance, and replacing bolts. Progress toward assorted goals varied. According to an API chart, 100 percent of certain replacement bolts had been ordered, and 94 percent of them had been installed.

But for other bolts described as “critical,” only 44 percent of replacements had been ordered and only 3 percent had been installed. The schedule for installing those stretches into 2023.

The spate of bolt failures raises a deeper question.

If bolt problems were discovered only accidentally or as the result of an accident, what other vulnerabilities are waiting to be discovered?

Lying and Cheating

Sometimes, the weakest link isn’t mechanical. It’s human.

In 2012, on a platform in the Gulf of Mexico, workers were worried. Their boss had ordered them to perform “hot work”—such as welding—near a flowing well, according to a later investigation. That would have violated federal regulations and could have sparked an explosion.

When one of the workers protested that members of the crew were uncomfortable, the boss, Race Addington, "asked everyone 'Who is not comfortable?'" and then told them, "`I will run y'all off' if you don't do as directed," a worker later told federal investigators.

The alleged intimidation set the stage for what followed.

The night of November 27, 2012, the platform's blowout preventer was subjected to a required pressure test. The next morning, when Addington started his shift, he saw the test chart and saw that it was bad. In fact, it "looked like shit," he later told investigators.

Addington told two workers to create a new chart showing that the blowout preventer passed.

The next day, inspectors from BSEE arrived at the platform for a routine inspection, a document filed in federal court recounted. Addington gave them the phony test chart.

Though Addington didn't realize it, the phony chart was bad, too. One of the government inspectors explained to Addington that it showed the BOP failed the test. The inspector issued a citation.

Later that day, BSEE got a telephone tip from one or more whistleblowers complaining about unsafe hot work and a falsified pressure test. An investigation ensued.

One of the BSEE inspectors later told investigators that he was no stranger to fabricated BOP tests.

"He said that . . . he spent many years working in the private industry and became familiar with how facility personnel may 'make charts' that are not legitimate BOP pressure test charts," according to a summary of an interview the inspector later gave investigators. The inspector explained "that he personally had learned many years ago when working for private industry . . . how to make such false charts."

As it happened, two workers on the platform were recorded on video as they went through the motions of conducting a test to produce the fake. A BSEE inspector who watched the video saw through it. Among the giveaways: one of the people making the chart was tapping the side of the box in which the chart was being generated in an effort "to imitate vibrations that would be seen on a true test chart," according to an investigative record . Another giveaway: The device ostensibly charting the test results was not connected to the blowout preventer "in any way."

Addington later pleaded guilty to charges of making false statements. He was sentenced to a year of probation and 40 hours of community service.

"To say I'm sorry doesn't even begin to reflect the remorse that I have for this situation," Addington said at his 2015 sentencing.

Addressing Addington at the sentencing hearing, Judge Helen G. Berrigan remarked that the oil worker "had a very tough life," and she added, "I am actually very proud to have met you."

Kenneth Johns, one of the workers who created the fake chart, also pleaded guilty to making false statements. He was sentenced to two years of probation and fined $750.

Energy Resource Technology Inc. (ERT), the company that operated the platform, was fined $4 million, ordered to pay restitution of $200,000, and sentenced to three years of probation, the government reported.

This account is based in part on documents POGO obtained from the Interior Department's Office of Inspector General through the Freedom of Information Act. Those partially redacted records include an investigative report from April 2018 and summaries of interviews conducted during the probe. POGO's account also draws from court records, including a statement of facts that Addington signed.

Addington, who has spent more than 30 years in the industry, is currently working as an operations manager for a smaller oil services company.

In an interview with POGO, he said he provided false information about a BOP test to protect the jobs of the workers who had performed a faulty test. "Their understanding of the test procedures of the equipment was not right," Addington said. "They tested it to their understanding."

Rig workers would not necessarily be familiar with the latest regulations, he said. "You only have to have classes once a year or once every other year," he said. "You wouldn't know if there were any changes in rules or regulations until you go" back for further training, he said.

Addington said he would not put a crew in harm's way, and he said the well for which the test results were fabricated was not in danger of blowing out because it was effectively contained.

"Nobody is out there trying to kill somebody," Addington said. "Everybody is out there trying to make a living and doing it to the best of [their] abilities."

Addington said government officials seemed interested in making an example of him and falsely viewed him as a cowboy. He recalled that one official asked him, "Is it true that they call you 'Race' because you like to get things done fast?"

"Race" is the name his parents gave him when he was born, Addington said. "God knows why."

Addington denied that he threatened to run off members of the crew. In the interview with POGO, he brought up a comment that he made to federal investigators—a comment quoted in an investigative record: "If I stopped work every time they feel it's unsafe nothing would get done."

As a supervisor, Addington told POGO, it's his job to keep the crew productive. Workers "will say or do anything to get out of doing something"—not because it's unsafe, but "just because they don't want to do it," Addington said.

Addington said he doesn't ask crew members to do things that he wouldn't do himself.

Several months after the falsification of the test on the ERT platform, Addington was the company man on another ERT platform, and it experienced a blowout. The company was cited for safety violations.

Addington told POGO that, after that platform was evacuated, he voluntarily returned to fight the blowout.

Asked how common it is for BOP test results to be falsified, Addington said, "You would probably be shocked about how often it happens."

"The reason why I say that it's probably more common than what you think is that the government puts such harsh regulations on testing items," Addington said.

Offshore conditions, as Addington described them, aren't conducive to perfect test results. During years of use, a BOP bounces around on a boat and is exposed to the elements. In addition, the equipment used to chart the test results is exposed to vibrations and wave action.

"And you're asking these guys to get 100 percent on a test," Addington said. "They're testing and they're testing and they're testing . . . and they see no leaks," he said. The testing consumes time and causes frustration "and what do you think the natural thing is to do?"

"They know by experience that things are going to be good, so in order to make this 100 percent test they may falsify the test," Addington said.

But don't expect self-incriminating confessions, he said.

"[I]f you asked somebody to come and testify about it, it would be like asking a drug dealer . . . 'How do you cut your cocaine?' They're not going to criminalize themselves to make a point."

"The Bare Minimum"

The government doesn't trust oil and gas companies to make sure that their BOPs are up to snuff. It requires them to have "independent third parties" verify that the BOPs measure up.

However, when the Interior Department's Office of Inspector General investigated one such third party in 2016, it gathered some sobering accounts.

The investigation began with a complaint that Lloyd's Register North America, Inc. conducted "substandard" BOP verifications and "may have falsified BOP verifications," an April 2016 inspector general report said.

The report was posted by governmentattic.org in a batch of 30 Interior Department inspector general reports from 2016. Governmentattic.org vacuums up many federal records through Freedom of Information requests and posts them without comment.

The inspector general did not find that Lloyd's falsified BOP verifications. Nor did it find that Lloyd's conducted substandard verifications. But that wasn't saying much. At the time, federal regulations "did not require the application of specific standards when completing verifications," the report said. (The only requirement at the time was that the company doing the verifications be "a licensed professional engineering firm," the report said.)

If there aren't any standards, no one can be cited for substandard work.

"We did, however, receive concerns regarding the technical competency of Lloyd's current management overseeing BOP verifications," the inspector general reported.

That wasn't all.

Lloyd's in 2012 acquired another company that performed private inspections, West Engineering. Before being taken over by Lloyd's, West did the majority of BOP verifications in the Gulf of Mexico, the report said.

"West had conducted its BOP verifications in a manner that exceeded compliance standards, but after the acquisition, Lloyd's lowered its verification standards to meet minimum requirements established by Federal regulations and the American Petroleum Institute (API)," the inspector general reported.

The company "made a business decision to meet only the bare minimum requirements of the government," one witness said.

The report compiled observations from people whose names are redacted. A recurring theme was Lloyd's willingness to please its customers—companies that conduct offshore oil and gas operations.

For example, one person "had heard of situations where a non-technical manager in Lloyd's would sign a document that a technical engineer refused to sign because a 'customer needed it,' and Lloyd's was in the business of 'taking care of the customer,'" the report said.

"He believes that this type of customer 'accommodation' is not living up to the intent/spirit of the law, which as he articulated before, was to ensure another Deepwater Horizon explosion does not happen again," the report said.

According to one or more sources whose name or names were redacted, Lloyd's customers pushed back against West's policy of subjecting BOPs to pressure tests that lasted 10 minutes. The customers allegedly wanted shorter tests, the report said. According to one of the sources, Lloyd's "decided to override West's technical personnel and concede to their customers' requests that they only conduct the BOP pressure test for five minutes," the report said.

That troubled people interviewed by the inspector general. Through experience, West had learned that pressure tests should be conducted for 10 minutes to ensure there were no small leaks in the blowout preventer that might not be detected in a 5-minute test, one said.

One of the people interviewed by investigators—apparently a Lloyd's employee—recounted telling Lloyd's that he considered it "absolutely necessary" to run a pressure test for 10 minutes and that Lloyd's "would need to fire him" before he signed a verification based on a test of only 5 minutes.

As a result, Lloyd's reportedly told BP—one of the companies involved in the Deepwater Horizon disaster—that it would have to run pressure tests for 10 minutes, the inspector general wrote. Subsequently, BP reportedly agreed that a 10-minute test was needed, the inspector general added.

In the report, one observer said Lloyd's was under pressure from upstart competitors.

For example, "Lloyd's, through West's technical division, refused to sign off on a BOP 'hop' from one well to another well without having the BOP taken out of the water for inspection," the observer reportedly said. "He explained that they were requiring this out-of-water inspection because they had learned through their many years of experience that BOPs could potentially be damaged by . . . previous use."

However, the customer allegedly protested and turned to another verification company, "which provided the verification to the customer without ever having seen or inspected the BOP," the report said.

In emails to POGO, Lloyd's spokesperson Jason Knights declined to address specific allegations in the Inspector General's report. "On the investigative report, the evidence is clear from the findings confirmed on the close-out of the investigation and final report, so we will not be drawn in to comment on those issues," Knights wrote.

Lloyd's Register "met the requirements established by Federal regulations and the American Petroleum Institute," Knights wrote. "We have worked, and continue to work, closely with industry authorities and regulators around the world, including BSEE to deliver independent third-party assurance in accordance with the prescribed requirements."

In its plan to loosen safety rules that were adopted in 2016, the Trump Administration has proposed shortening the requirement for a particular pressure test from 30 minutes to 5 minutes. "BSEE believes the historical data indicates that five minutes is adequate to demonstrate effective sealing," the proposal says.

In addition, the Administration has proposed weakening oversight of the organizations that perform BOP verifications.

Under the 2016 rules, verifications must be performed by organizations reviewed and approved by the government, and organizations seeking approval must state their qualifications, including their experience with BOPs.

Under the Administration's proposal, BSEE would not vet or approve the organizations in advance.

"This change would not impact safety because independent third parties have been utilized as long-standing industry practice," the Administration's proposal says.

Washed Out

A spill last year from a well that Shell was operating in deep water highlighted other hazards.

On June 6, 2017, Shell stopped drilling operations to conduct a pressure test of the BOP on a drillship called the Noble Don Taylor. Such tests were required every 14 days.

During the test, a remotely operated underwater vehicle detected drilling fluid—synthetic "mud" used in the well—leaking from the blowout preventer and polluting the Gulf of Mexico, according to a federal accident investigation report. The BOP was raised to the surface and examined. Investigators found that a seal on the BOP had failed. They also found "washout damaged areas" in the BOP.

BSEE blamed the spill in part on a "buildup of debris" inside the BOP. The Bureau said there had been a "failure to conduct proper . . . cleaning and flushing of the BOP" as recommended in a manufacturer's bulletin issued almost two years earlier. The Bureau indicated that someone—it didn't clearly say who—had failed to get the word out well enough about the danger that the BOP could malfunction. BSEE's report cited "inadequate communications of a known risk of loss of seal integrity as stated" in the manufacturer's bulletin.

A separate government report on blowout preventer failures shed additional light on the subject. It said the manufacturer failed "to effectively communicate the level of effort needed to prevent debris buildup" or that "improper cleaning can lead to loss of seal integrity." The main problem was the design of the BOP, the report said. Even with more thorough cleaning, debris might still build up, the report said.

In 2016, the year before the Shell incident, the government was informed of two failures involving the same component, the report added.

Based on the government's accounts, the episode showed how failure upon failure can contribute to a spill. The BOP had an inherent weakness. The manufacturer knew about it and issued a bulletin on the subject. The government, too, had been put on notice. But the message didn't come across as clearly as it should have, and Shell failed to make sure the BOP was maintained properly.

BSEE's accident investigation report concluded that Shell "failed to protect health, safety, property, and the environment."

Shell spokesman Curtis Smith did not follow up on interview requests or written questions.

Bulletins

The so-called "Product Information Bulletin" about the BOP in the Shell incident was not unique. The same manufacturer, National Oilwell Varco, has issued dozens of technical bulletins over the years about malfunctions, design changes, new maintence recommendations, and the like.

For example, on November 13, 2017, National Oilwell Varco reported that a "BOP actuator lost function." It recommended that, for certain pieces of equipment, a "rod nut" should be replaced. On July 12, 2017, it alerted customers to a few "incidents of spiral failure in O-Ring piston seals." It said that, on new units, it would use a "T-Seal" in place of an "O-Ring." On December 2, 2015, it reported that a particular seal "was observed to be wearing prematurely" and in "intermittent cases" that "caused the seal to fail." The company said that, effective "immediately," parts should be replaced.

And, on June 12, 2015, it disclosed "a design flaw present since creation in 1995," 20 years earlier. "This design oversight"—affecting spare blades—"caused the ineffectiveness of the seal," the company said. The bulletin advised customers to contact the sales department "for immediate replacement."

National Oilwell Varco did not respond to inquiries for this story. Reached by phone in October, company spokesperson Loren Singletary said he had referred POGO's written request to the company's legal department.

Failures

Like a lot of mechanical equipment that is subject to wear and tear under harsh conditions and that depends on effective maintenance, BOP components are susceptible to breakdowns.

To get a better handle on what could go wrong, what has gone wrong, and what might otherwise remain under the radar, the federal government in 2016 mandated that oil and gas companies confidentially report equipment failures. Those reports include so-called "near misses."

In 2017, the first full year for which the Bureau of Transportation Statistics has issued data from those reports, 18 of 25 rig operators in the Gulf of Mexico reported BOP equipment failures—1,129 of them in total. The failures occurred on 45 of 59 rigs operating in the Gulf at the time, the Bureau reported.

The reported causes for equipment failure included wear and tear, maintenance errors, design problems, faulty manufacturing, and "procedural error" (which apparently includes bad instructions and/or user error), among other factors.

The Trump Administration has proposed loosening the reporting requirements.

The confidential reporting of equipment failures was intended to help industry and its regulators learn from experience, but in key respects the program has fallen short of expectations. When BOPs are pulled from the ocean floor for repairs, the faulty components are supposed to be sent to shore for further analysis by the manufacturer or some other third party, the report by the Bureau of Transportation Statistics said. However, in one-third of the so-called "unplanned stack pulls"—6 of 18—that didn't happen, the report said.

Further, though 232 components overall were reportedly sent to shore for analysis by a manufacturer or third party, such analyses were shared with the government in only a small minority of cases. Offshore operators submitted so-called investigation and analysis documentation to the government program "for only 34," the report said.

One of the equipment failures resulted in pollution of the environment—the Shell incident discussed above. About 4,000 gallons of pollutant leaked into the Gulf, the report said.

The rest of the failures merely hinted at the risks.

Feet of Clay

Even the most effective blowout preventer can be powerless to prevent a spill. At the bottom of the ocean, it may be resting atop a fragile geologic foundation. It may be standing on proverbial feet of clay.

The rock "formation," which can include layers of salt, sandstone, and sediment, holds the highly pressured oil or gas—until it's drilled. If the formation surrounding the well fractures, oil can find escape routes other than the well hole and then emerge from the ocean floor. Think of a bathtub: plugging the drain won't contain the water if the tub cracks.

That’s what happened in the Santa Barbara spill of 1969. In one of the nation’s worst drilling disasters, oil fouled miles of California coastline. “The oil had burst through its fragile geological formation, ripping five long gashes through the top of the ocean floor,” a newspaper article quoted on a Santa Barbara county website explains.

During the Deepwater Horizon ordeal, authorities worried that efforts to control the well could lead to a similar outcome.

Short of opening new pathways for oil and gas to escape through the ocean floor, formation fractures can compromise the well itself. They can lead to an unexpected rush of oil and gas into the well, known as a “kick.” To contain a kick, a rig crew must first detect it—and then swiftly and effectively activate the BOP. Ironically, operation of the BOP can lead to a formation fracture.

All of that helps explain how seemingly formidable BOPs can create a false sense of confidence.

In 2015, fluid spilled from a well BP was drilling in the Gulf of Mexico. According to a BSEE accident investigation report, BP concluded that the formation, made of salt, might have been “weaker than expected.” Or maybe, BP theorized, the pressure applied during a BOP pressure test “resulted in a formation breakdown.”

A team of federal investigators tried to figure out whether the “geologic risk” could have been identified before the drilling began, the report said.

The report gave this answer: “The team could not identify any . . . data that would have changed the location and design of the well or prevented the event once it was in progress.”

In other words, they concluded that the breakdown could not have been foreseen or stopped.

Big Oil Rules: One Reporter's Runaround to Access "Public" Documents

pogo.org/investigation/2018/12/big-oil-rules-one-reporters-runaround-to-access-public-documents

When the government relies on industry standards, transparency can suffer

By David S. Hilzenrath | Filed under investigation | December 06, 2018

Illustration by POGO.

You might take it for granted that, when the federal government proposes new regulations, it posts them all online where anyone could read them without paying for the privilege or jumping through hoops.

You might assume that, because the federal government is required to give the public a chance to comment on proposed rules before adopting them, it would make it simple for the public to see the proposed regulations in full.

You would be mistaken.

To understand how, come with us to a suburban office park where the Interior Department is working on a plan to adopt offshore drilling safety standards written by the offshore drilling industry.

As the Project On Government Oversight reported previously, when the government issued a notice of rulemaking in May laying out its plan to adopt standards written and copyrighted by the American Petroleum Institute (API), an oil industry lobby, it didn't publish those standards for all to see. Instead, in legal jargon, it incorporated them "by reference."

In the public notice, the government offered to make the documents available for inspection—at an office in Loudoun County, Virginia.

This is the story of what happened when POGO set out to take the government up on that offer.

Spoiler alert: The government did not seem to be expecting anyone.

First, the backstory.

In 2010, the Deepwater Horizon drilling rig exploded in the Gulf of Mexico, killing 11 people and triggering one of the worst environmental disasters in history. Oil spewed into the Gulf for months, and the rig's blowout preventer, which was supposed to close the well and prevent an uncontrolled spill, failed.

In 2016, the Obama Administration adopted new safety standards meant to reduce the risk of blowouts.

In May 2018, the Trump Administration proposed loosening safety standards for offshore drilling. It said its "deregulatory action" was intended to change or eliminate "regulatory provisions that create unnecessary burdens," and it estimated its proposal "would save the regulated industry $98.6 million annually over ten years" without compromising safety. As part of its plan, it said it was incorporating API standards.

To see them, we didn't have to go to Sterling. There were alternatives. But each of them had drawbacks.

In the official notice published in the Federal Register, the Administration said copies of the API standards could be purchased from API or viewed for free on the API website.

Purchasing them would cost hundreds of dollars. Viewing them for free would require giving API personal information and entering into a contract with API that could open the user to a federal lawsuit for, say, trying to "store" or "transmit" the API documents.

It would allow members of the public only read-only access—no cutting, pasting, printing, copying, or saving—significant handicaps when working with technical documents that total hundreds of pages.

The Interior Department agency managing the rulemaking is the Bureau of Safety and Environmental Enforcement, or BSEE—pronounced "Bessie." BSEE offered two other options:

"For the convenience of members of the viewing public who may not wish to purchase copies or view these incorporated documents online, they may be inspected at BSEE's office, 45600 Woodland Road, Sterling, Virginia 20166, or by sending a request by email to *regs@bsee.gov*."

POGO wrote to regs@bsee.gov on August 6, 2018, requesting copies of the API standards. POGO has received no response. Meanwhile, the time allotted for public comments on the proposed rule change has expired.

POGO asked API about this process. Why does the industry group impose conditions and restrictions on the public's access to the standards? Would API allow the government to publish the standards in full? Has BSEE asked API for permission to do that?

API didn't answer those questions. BSEE left parallel questions unanswered.

However, in an email to POGO, API said it goes beyond a federal requirement. API pointed to an Office of Management and Budget circular giving guidance to federal agencies. The document lists factors to consider when assessing whether an industry standard is "reasonably available" to interested parties. The first of the factors listed, API noted, is whether the developer of the standard is willing to provide free, "read-only access" on its website during the public comment period. API said it does—and that it leaves them online after the comment period.

Picking up where we left off in our last story, on August 24, this reporter drove to 45600 Woodland Road in Sterling, Virginia, which is in Washington's metropolitan orbit but well beyond the famous Beltway.

According to Google Maps, it's 32.5 miles from Capitol Hill. I drove from suburban Maryland, but if you started in the heart of the nation's capital, heading outbound during the morning rush hour, Google says it would take you about 45 to 65 minutes to get there by car. It's unclear whether Google's estimate includes stops to pay tolls. By a combination of Metro train and bus, the trip would take about two hours and 20 minutes, Google says.

(Depending on your starting point, it could take longer. For example, if you're coming from San Francisco, the driving distance is more than 2,800 miles.)

I arrived at the security desk in the office building's lobby at 11:14 a.m., identified myself as a journalist from POGO, showed a copy of the notice from the Federal Register advertising the documents' availability, and asked to see them.

The security guard at the front desk had no idea what I was talking about. He asked if I had an appointment.

The notice in the Federal Register didn't say anything about needing an appointment.

The guard tried to turn me away.

At my request, the security guard called his boss, who he described as head of security for the building.

The guard said he couldn't let anyone in the building without an appointment.

In time, the guard's boss, Thomas E. Gandy, appeared at the front desk. Gandy explained that he, too, was at a loss to provide access to the documents.

"I do not know who does that," Gandy said. He said could get a phone number for public affairs—an office that typically fields inquiries from journalists—but that the public affairs person was not in that day. He suggested I send an email.

"I don't even know where those records are," Gandy said. "I don't know who to send you to."

Nonetheless, Gandy expressed sympathy.

"If this says you can come here," he said, referring to the public notice, "you should be able to come here."

Gandy took a page from the public notice and left to look into the matter.

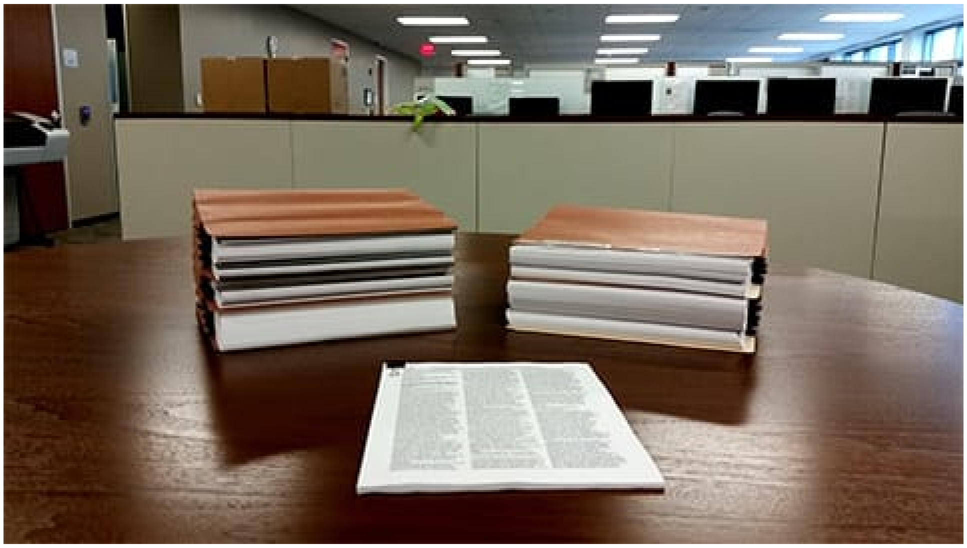
Later, BSEE regulatory analyst Kelly Odom arrived in the lobby and said she keeps the records. She said she could email them or provide them on a disc. When I asked for copies, too, she warned that they are like a phonebook in size. She said she would make a disc while I waited.

As it turned out, it wasn't that simple.

Instead of returning with a disc, Odom explained that she couldn't provide copies after all. I could hand over my driver's license to security to be admitted to the building and inspect the records in BSEE's offices, or I could read them in the lobby. I signed in and was escorted up the elevator to a large, quiet, and sparsely populated wing of offices, desks, and cubicles.

Odom explained that sending a request by email to regs@bsee.gov was not a way to obtain copies, but rather a way to arrange to inspect the documents in person, potentially at a more convenient location than Sterling.

Odom said BSEE could not publish API's standards in the Federal Register because of copyright issues, "but they're letting us incorporate them."



BSEE first provided these files—which ended up being the incorrect documents. (Photo: POGO)

(Very generous of them, I thought. The fact is, API and other industry groups urged BSEE to incorporate and defer to API's standard on blowout preventers. "Eliminate any requirements that exceed API 53," API and six other industry groups asked in a September 2017 presentation to BSEE. But I digress.)

Odom said that, as far as she knew, this was the first time anyone had asked to inspect the standards.

We had been joined by BSEE public affairs specialist Holly Fowler, who shared a similar observation.

"Nobody comes out to Sterling. You're like our first outside visitor ever," Fowler said.

That didn't reflect any lack of public interest in the proposed offshore rules changes. BSEE received about 118,000 comments from the public, Odom said. (A federal website shows 46,813 public comments.)

BSEE staff brought out thick folders of standards and placed them on a round table. Then they caught their mistake. They were the wrong files.

The API standards associated with the rulemaking at issue had not been printed. The staff set about printing copies. It was about 1:00 p.m. when the first of the API standards arrived, and almost 2:00 p.m. when the last of them was delivered to me.

Fowler, the public affairs specialist, said I could not photograph any portions of the documents.

I was allowed to study them under the supervision of a rotating team of minders. One of the officials on hand was Doug Morris, chief of BSEE's Office of Offshore Regulatory Programs.

I asked if he could explain one of the proposed rule changes. He said he assumed it "came from industry," and he suggested I ask industry.

When I opened the first of the API documents, I discovered that the API standards BSEE had printed—the ones listed in its notice of proposed rulemaking as incorporated by reference—did not provide a complete picture.

The first of the documents incorporated by reference—"API Standard 53," titled "Blowout Prevention Equipment Systems for Drilling Wells"—itself incorporated other documents by reference.

"The following referenced documents are indispensable for the application of this document," API Standard 53 said.

The list included, for example, "API Specification 5L, *Line Pipe,*" "API Specification 6A, *Wellhead and Christmas Tree Equipment,*" and "API Specification 16C, *Choke and Kill Equipment*."

All told, the document that was officially incorporated by reference incorporated by reference 15 other documents.

Interior Dept Gives Rules Drafted by Oil Industry Force of Law

pogo.org/investigation/2018/08/interior-dept-gives-rules-drafted-by-oil-industry-force-of-law

By David S. Hilzenrath | Filed under investigation | August 07, 2018

As the Trump Administration seeks to loosen rules governing offshore drilling, it has proposed adopting safety standards written by the American Petroleum Institute (API), an advocacy group for the oil and gas industry.

The window for the public to comment on the Interior Department's proposed rewrite of federal drilling safety rules closed on Monday. But anyone trying to assess the Administration's plan and offer informed input would have found that API largely controls how the public can access the standards that would take on the force of law if the proposed rule is finalized.

In the official legal notice by the Interior Department laying out the rulemaking proposal on drilling safety for the public, the text of the copyrighted API standards is nowhere to be found. Instead of including the API standards in the notice, the Interior Department bureau that oversees offshore drilling merely referred to them and described some of their contents. In legal jargon, it incorporated the standards by reference.

The notice explains that hard copies and printable versions of the API standards "are available for purchase from API," and it provides an API web address for purchasing them.

According to an API catalog, one of the documents costs $130, another costs $155, and the third costs $160. Combined, they total 227 pages and would cost $445.

When writing regulations, the government is generally required to publish its proposals in the Federal Register, which is available online, and to give the public a chance to comment.

The government's handling of the offshore drilling proposal could violate the law and could be grounds for the proposed rules to be invalidated if they are adopted, University of Michigan Law School Professor Nina A. Mendelson told the Project On Government Oversight.

Mendelson teaches administrative law and has written about the government's incorporation of private standards into federal regulations. She reviewed the offshore drilling matter at POGO's request.

The Interior Department's "reliance on an incorporated by reference rule that is controlled by the American Petroleum Institute could well be illegal because it violates the federal requirement that the public have a meaningful opportunity to participate in rulemaking," Mendelson said in an email.

"A person cannot meaningfully comment without access to the substance of the standard," Mendelson said.

The offshore drilling plan spotlights a broader issue. Federal law allows the government to incorporate by reference private standards into official regulations, and the practice has been used widely.

Industries are often happy to write their own rules. Indeed, they might prefer it. For the government, adopting privately written standards is a way to reduce effort and tap private sector expertise. Incorporating private standards by reference instead of publishing them in the Federal Register is at least partly a relic of the age before the Internet, when it lowered the cost and volume of material printed on paper. It can also be politically expedient.

"The American practice of turning these standards into law is somewhat unusual on the world stage," said Peter L. Strauss, an emeritus professor at Columbia Law School.

A leading group of the nation's attorneys has formally raised concerns about the practice of incorporating standards by reference. According to a 2016 American Bar Association report, the Code of Federal Regulations has incorporated thousands of privately drafted standards on subjects as varied as toys, cribs, vehicles, food additives, and offshore drilling. Industry groups drafting the standards may have business interests that diverge from public interests—for example, protecting the environment and the livelihoods of people who depend on fishing or coastal tourism.

Just last month, a judge on the powerful U.S. Court of Appeals for the D.C. Circuit criticized the notion that private organizations should be allowed to control access to and use of their standards when the government gives those standards the force of law.

The Freedom of Information Act mandates that material incorporated by reference in regulations must be "reasonably available to the class of persons affected."

Whether as a general matter the government is making such standards "reasonably available" has been a point of contention.

The government's notice of proposed rulemaking on offshore drilling—which would loosen regulations meant to prevent disasters like the Deepwater Horizon blowout—says that the API documents are available to the public for free viewing online at the API website. But there are catches.

To access the documents via the web page the notice identifies, users must create an account with API. That includes giving API the user's name, company name, country, and email address.

In addition, users must agree to a set of API "terms." That document explains that it is "a legal agreement" between the user and API, and it warns:

"API may pursue any remedy legally available to it if you fail to comply with any of your obligations hereunder."

In the event of a lawsuit, the user could be required to appear in a particular court.

"Any legal action, suit, or proceeding arising out of or relating to this agreement or the breach thereof shall be instituted in a court of competent jurisdiction in the District of Columbia, Washington, and each party hereby consents and submits to the personal jurisdiction of such court," the legal document says.

What's more, "API may suspend or discontinue providing the Online Document to you with or without cause and without notice," the agreement says.

The agreement bears more than passing resemblance to the terms of service users frequently encounter as conditions for using commercial products such as apps or websites. However, the API products—which the API agreement describes as "copyrighted and owned by API"—would serve as federal regulations.

Registering with API and accepting its terms get users only so far. The free versions of the API standards are "designed to be viewed online only—there are no 'cut and paste,' 'edit,' 'print,' or 'save" capabilities," the terms of service explain. What's more, "the license granted to you by this agreement does not include the right to download, reproduce, store . . . modify . . . or transmit" the documents, the terms say.

As a practical matter, those restrictions could make it difficult to analyze and effectively use hundreds of pages of technical guides with titles such as "Blowout Prevention Equipment Systems for Drilling Wells" and "Isolating Potential Flow Zones During Well Construction." It could complicate efforts to compose public comments based on the API documents.

The University of Michigan's Mendelson said the conditions are "onerous."

But Columbia Law School's Strauss said they are consistent with a regulation the Office of the Federal Register issued in 2014. The regulation requires an agency to discuss, in the preamble of a proposed rule, "the ways that the materials it proposes to incorporate by reference are reasonably available to interested parties or how it worked to make those materials reasonably available to interested parties."

"What API has done is compliant with that, albeit in the narrowest possible way," Strauss said.

Strauss said he doesn't think the Office of the Federal Register is going as far as it should under law to make sure standards are reasonably available. He added that no court has spelled out during the Internet age what constitutes "reasonably available."

The public notice about the proposed offshore drilling rule includes an additional offer:

"For the convenience of members of the viewing public who may not wish to purchase copies or view these incorporated documents online, they may be inspected at BSEE's office, 45600 Woodland Road, Sterling, Virginia 20166, or by sending a request by email to *regs@bsee.gov*." (Italics in original)

BSEE, pronounced "Bessie," is Interior's Bureau of Safety and Environmental Enforcement, the regulator responsible for the proposed rules.

The option of inspecting documents at BSEE's office in Sterling, Virginia, might not be much of a convenience for people who live more than a short distance from Sterling, Virginia.

It is unclear what members of the public can obtain by sending a request to regs@bsee.gov. POGO wrote to the BSEE email address Monday requesting all the documents incorporated by reference. POGO has not received a response. If the government can provide copies of the copyrighted API documents on request, that would beg the question: Why can't it publish them for all to see?

POGO asked the API a set of questions for this story, including why it charges members of the public for hard copies and printable versions of its standards, whether it would allow the government to publish the documents, whether the government has asked if it could publish them, why API requires users seeking free access to identify themselves, and why it requires such users to accept legal terms.

The API did not answer those questions. It provided a wide-ranging statement that said, in part, "Industry is focused on effectively managing risk and ensuring the safety of workers and the environment while also fostering robust offshore development that's critically important to the nation's future."

"The U.S. oil and natural gas industry is well regulated, and our industry supports smart, effective regulation," the statement attributed to the API's Upstream Group Director Erik Milito said.

In an email, API spokesman Reid Porter added that, "to purchase one of the below standards, please go to API's Standards Section."

POGO also asked questions of BSEE. Bureau spokeswoman Tiffany Gray wrote that BSEE was “working to respond.”

In 2016, the American Bar Association passed a resolution urging Congress to strengthen the Administrative Procedure Act and the Freedom of Information Act to ensure “meaningful free public availability” of the texts incorporated by reference in both proposed rules and those ultimately adopted.

“Current law as implemented has failed to ensure sufficient public access to the law,” according to the ABA report accompanying the resolution. The “lack of access” to proposed rules “undermines the public’s right to comment” on them, the ABA report argued. “Ready access to standards that have been incorporated by reference is necessary for citizens to know what their government is doing and to hold the government accountable for serving – or not serving – the public interest.”

The fees charged for access to the standards can prevent members of the public from reading them, the ABA report said. When the standards are made available for free online, readers have been required “to identify themselves, waive a variety of rights, and even agree to objectionable conditions,” the report said.

The ABA report said the government’s use of private standards “without meaningful public access” was “constitutionally suspect” and arguably in violation of existing law. The report said Congress should act because the Office of the Federal Register, which serves as gatekeeper for regulatory notices, has not done enough to ensure that material incorporated by reference is “reasonably available.”

Another point of contention has been the definition of exactly who is entitled to reasonable access. Is it only the regulated industry? Is it everyone who might be affected by the industry’s conduct—for instance, when it comes to offshore drilling, anyone who might be harmed by an oil spill? Or does it include anyone with an interest in what their government is doing—say, to prevent offshore drilling disasters?

In response to questions for this story, Miriam Kleiman, a spokeswoman for the Office of the Federal Register’s parent agency, the National Archives and Records Administration, referred POGO to the 2014 notice in the Federal Register laying out the office’s rule on “incorporation by reference.”

Last month, the Office of the Federal Register issued a handbook on the subject of material incorporated by reference.

“We interpret ‘reasonably available’ in a flexible, case-by-case manner that takes specific situations into consideration,” the handbook says.

“Remember: Read-only access, on its own, may not meet the reasonable availability requirement at the final rule stage of rulemaking,” the handbook says. “If the regulated parties aren’t able to use the material (which may be different [than] simply reading or accessing it) throughout the life of the rulemaking, this could lead to enforcement issues.”

Nonetheless, the handbook cited as a model a disclosure about API standards explaining that they are available for purchase from API or for free online viewing in read-only form.

Meanwhile, a federal appeals court opinion last month raised questions about the constitutionality of “permitting private ownership of standards essential to understanding legal obligations.” The opinion didn’t resolve that question; it focused on whether the organizations that write standards that are incorporated into regulations can use copyright law to prevent others from distributing the standards to the public. A trial court had said organizations could block public dissemination of their copyrighted standards, but the appeals court for the District of Columbia reversed that ruling and sent the case back to the lower court for further action.

As noted above, in a concurring opinion, appeals court Judge Gregory G. Katsas, who was appointed last year by President Trump, criticized the notion that copyrights could be used to prevent anyone from copying, distributing, or accessing binding legal texts.

“As a matter of common-sense, this cannot be right: access to the law cannot be conditioned on the consent of a private party,” Katsas wrote.

But Judge Katsas’s views were not a legal holding—agencies do not have to change their practices.

Nor does Katsas’s opinion affect the proposed offshore drilling safety rules drafted by BSEE. The BSEE proposal would roll back various safety standards adopted during the Obama Administration.

“This proposed rule is a deregulatory action,” the notice in the Federal Register says. Taking its cue from an executive order issued by President Trump, it is intended to remove regulatory provisions that “create unnecessary burdens,” the notice says. BSEE estimates that it would “save the regulated industry” almost $100 million annually over 10 years. BSEE also says it would not compromise safety or environmental protection.

This is hardly the first time BSEE has adopted industry standards. The safety rule the Obama Administration finalized in 2016 also incorporated API standards. It explained that the standards could be purchased or viewed for free on the API website.

Exxon Underpaid U.S. in Offshore Oil Dispute, Report Says

pogo.org/investigation/2018/06/exxon-underpaid-us-in-offshore-oil-dispute-report-says

By David S. Hilzenrath | Filed under investigation | June 14, 2018

(Illustration: CJ Ostrosky / POGO)

Exxon Mobil, one of the world's largest oil companies, had not paid about $2.1 million in royalties owed to the U.S. government on oil extracted from the Gulf of Mexico, a federal investigation last year concluded.

A unit of the Interior Department concluded that Exxon's justification for not paying the money was "hollow and almost completely without merit," according to a government report the Project On Government Oversight obtained through the Freedom of Information Act.

That unit, the Office of Natural Resources Revenue (ONRR; pronounced as "honor"), is responsible for collecting payments on behalf of the American people for fossil fuels extracted from property owned by the public, including offshore oil deposits. ONRR suspected Exxon had acted improperly and was so concerned that it complained to the Interior Department's Office of Inspector General, according to the report.

The Inspector General's office investigated the matter and essentially agreed with ONRR, finding that Exxon's documentation "did not support" the company's position. As a result, Exxon's "royalty obligation . . . remained outstanding," the watchdog's June 2017 "Report of Investigation" said.

The Inspector General took the matter seriously enough that it contacted the Justice Department, which enforces federal law.

But it appears that Exxon prevailed.

The Justice Department declined to pursue the matter, the Inspector General reported. The watchdog shared its findings with ONRR and another Interior Department unit, the Bureau of Safety and Environmental Enforcement (BSEE; pronounced as "Bessie"), which oversees offshore drilling.

In a statement to the Project On Government Oversight, ONRR spokeswoman Heidi Badaracco said ONRR "coordinated with BSEE" and "closed the case."

The statement implied that ONRR had reversed its position in the matter and had deferred to BSEE despite the Inspector General's findings, but it did not make clear why ONRR had done so.

BSEE had originally blessed Exxon's handling of the matter, the Inspector General reported, so BSEE's take on the matter was nothing new. ONRR had chosen not to go along with BSEE on the matter in the past, the IG reported.

"While ONRR was aware of BSEE's approval," the June 2017 Inspector General report said, "ONRR never agreed to waive the company's royalty obligation . . . ."

The copy of the report the Inspector General's office released to POGO under the Freedom of Information Act contained extensive redactions, which make parts of it difficult to follow.

Royalties are supposed to make sure the American people receive a share of the wealth generated from public assets, such as fossil fuel deposits beneath the Gulf of Mexico.

For Exxon, the amount of oil at issue in the investigation and the disputed $2.1 million in royalties are proverbial drops in the bucket. But the conflict over them shows how much trouble the government can have collecting what it's owed—or figuring out what it's owed.

Word that the case has been closed comes at a time when energy interests are pressing for lower royalty rates and the Trump Administration is taking steps to lower them.

The Administration has cut royalty rates associated with some offerings of offshore drilling rights. In addition, an Interior Department advisory committee convened by the Trump Administration has recommended cutting royalties associated with other offerings. The committee includes representatives from fossil fuel industry groups and energy companies such as Shell, Chevron, Anadarko Petroleum, and ConocoPhillips. It also includes members in a category described as "Academia and Public Interest Groups," though, as POGO has reported, some members listed in that category have ties to industry. As a general matter, the Trump Administration has championed fossil fuel industries.

The story of the Exxon matter also illustrates how difficult it can be to get answers from the Interior Department.

POGO sent the ONRR spokeswoman an email asking her to put us in touch with an expert at ONRR who could walk us through the Inspector General report and explain ONRR's take on the matter.

When days passed and POGO asked for an explanation of the delay, the spokeswoman replied by email, "ONRR's responses go to DC for review. I am awaiting approval to release to you."

Asked to clarify who in DC does the reviewing and approving, the spokeswoman replied, "DC Department of the Interior communications office."

The spokeswoman added that she had gotten an okay to set up a conference call with subject matter experts. Then she abruptly canceled the call, writing, "I just heard back from the DC Comms Office. I will have to respectfully decline the interview."

Instead, she sent a four-sentence statement. She did not respond to follow-up questions seeking clarification. For example, POGO asked when ONRR closed the case and how much if any of Exxon's allegedly outstanding royalty obligation ONRR collected.

BSEE similarly declined to answer questions or grant an interview. "We have nothing to add to the statement that ONRR provided regarding the closing of the case," BSEE spokesman Gregory Julian said by email.

An Exxon media relations office did not respond to calls from POGO.

The IG's office did not follow up on an interview request.

The contention over Exxon goes back to 2010, when Exxon sold $1 billion of assets in the Gulf of Mexico to another company, Energy XXI. Each company was required to account for oil inventory transferred in the deal. According to the Inspector General report, Exxon's account did not match that of Energy XXI.

Energy XXI declined to comment.

After the discrepancy emerged, BSEE allowed Exxon to make an "adjustment" to its production inventory, the Inspector General said in a brief summary of the investigation included in an October 2017 half-year report to Congress. (The summary did not name Exxon; the company was named in the longer report obtained by POGO.)

The adjustment reduced the company's inventory by approximately 122,000 barrels of oil, which also reduced the company's royalty obligation by about $2.1 million, the summary said.

Exxon reportedly claimed that some of the oil it had counted as inventory was actually “pipeline fill”—oil used to fill and maintain pressure within a pipeline—and that it had miscounted that oil for more than 40 years.

The person at BSEE who signed the adjustment—the name is redacted—said the oil in question would eventually be pushed through the system to a point at which royalties are assessed, resulting in no loss to the government, the full investigative report says.

The Inspector General’s office wasn’t satisfied.

“The company was unable to provide adequate evidence to support its claims, and as a result, the ONRR will continue to purse outstanding royalties,” the Inspector General said in its October report to Congress.

Apparently, it didn’t work out that way.

In its statement for this story, ONRR said:

“BSEE determined that the production in question was pipeline fill and not royalty-bearing at the time of Exxon's ownership . . . .”

Drilling Down: Big Oil's Bidding

pogo.org/investigation/2018/02/drilling-down-big-oils-bidding

For decades, there has been a virtual giveaway of offshore drilling rights. And the Trump Administration is planning to put much more on the auction block.

By David S. Hilzenrath & Nicholas Pacifico | Filed under investigation | February 22, 2018

When the government awards energy companies the rights to drill for offshore oil and gas, it's supposed to make sure the American public, which owns the resources, doesn't get screwed.

The government is required by law to use "competitive bidding" and to ensure that taxpayers receive "fair market value."

However, decades of data suggest that the government has been falling down on the job, a Project On Government Oversight analysis found.

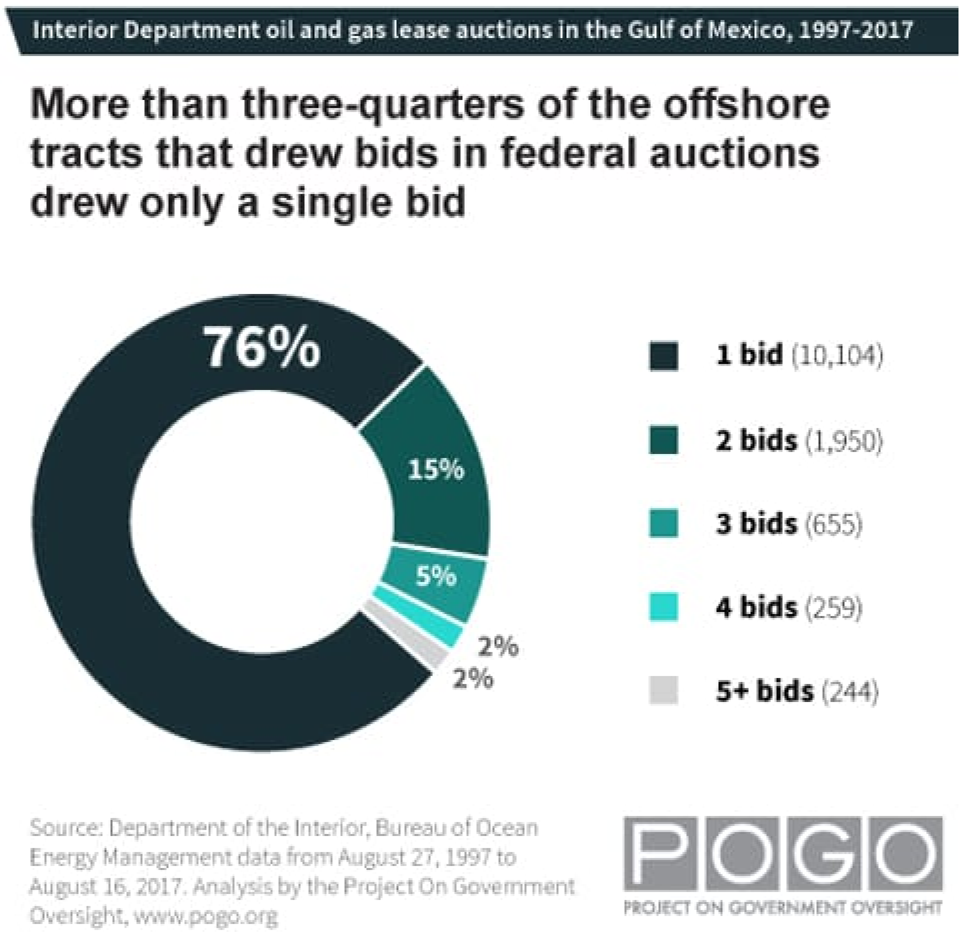
The system the government has been using to auction drilling rights since 1983 has enabled energy companies to secure offshore leases for a pittance. On an inflation-adjusted basis, comparing the era before the change to the era since, the average price paid per acre in each Gulf of Mexico auction has declined by 95.7 percent, from $9,068 to $391, POGO found.

Over the decades, that has added up to a decline in auction payments of tens of billions of dollars.

With the Trump Administration planning to open immense stretches of ocean floor to oil and gas companies, the stakes are rising. If the past is any indication, more publicly owned resources could be turned over to industry at bargain-basement prices.

Far from fostering real competition for drilling rights, the system in place since the Reagan Administration has delivered little more than an illusion of competition. In this Alice-in-Wonderland version of an auction house, the low bid generally wins, because the low bid and the high bid are typically one and the same—the only bid.

For example, in the most recent auction, companies placed bids on 90 tracts. Of those tracts, 81 drew only a single bid. The vast majority of winning bids were unopposed.



Over the past 20 years, more than three-quarters of the leases awarded in the Gulf of Mexico —76.6 percent—were awarded on the basis of single bids, POGO found.

Those general problems have been documented by experts in the past, but, if they ever achieved any widespread recognition, seem to have been all but lost in the current debate over offshore drilling.

POGO's analysis shows that the patterns have continued to the present.

More importantly, POGO's analysis shows why the near absence of head-to-head bidding could be a much bigger problem than the government has acknowledged.

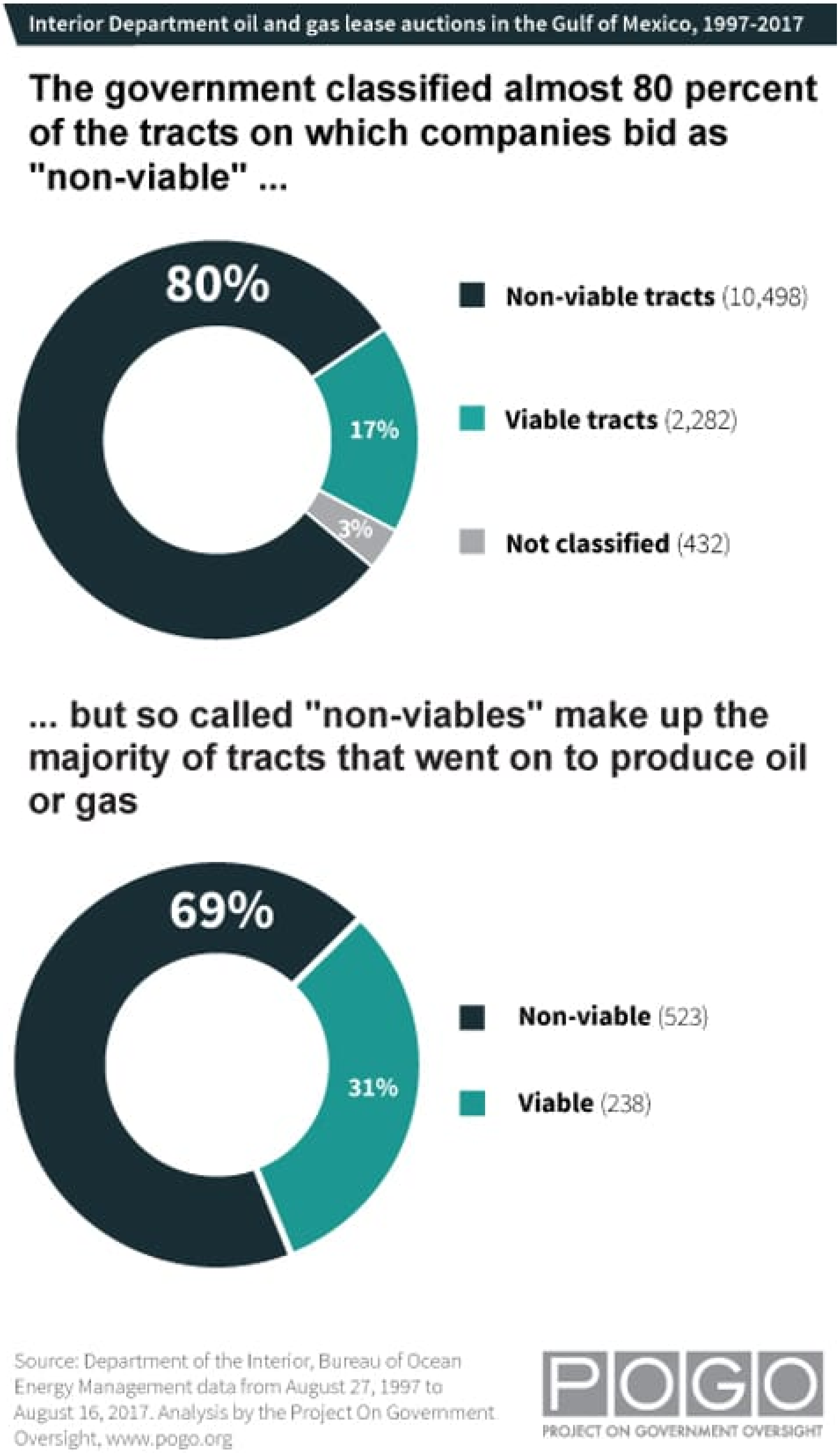
The government says that, before it accepts any bid, it studies the tract of ocean floor to make sure the bid delivers fair market value. The government's "bid adequacy" assessments supposedly protect the taxpayers if the market does not. But, in light of POGO's findings, it is unclear why the public should take any comfort in the government's bid adequacy determinations.

Under published procedures, the Interior Department can automatically accept the high bid for certain tracts if it considers the tracts "non-viable," which the Department defines as lacking "the potential capability of being explored, developed and produced profitably." If the Interior Department considers the tracts non-viable, it need not perform a full valuation, according to federal disclosures.

In 79.5 percent of the more than 13,000 bid adequacy determinations that POGO examined, the Department categorized the tract as non-viable and accepted the "high bid" on that basis, according to government disclosures.

Over the past 20 years, companies placed high bids totaling $7.8 billion on Gulf of Mexico tracts the Interior Department categorized as non-viable, POGO found.

Evidently, energy companies saw value that the government did not.



In many cases, companies doubled down on the investments they made in supposedly non-viable tracts—and then doubled down again. First, they drilled costly exploratory wells on those tracts. Then, they shifted into production mode to extract oil or gas, POGO found.

Most of the leases that ultimately became energy-producing—68.7 percent—involved tracts the Interior Department had classified as non-viable, according to POGO's analysis.

For the Interior Department, disposing of tracts as non-viable—that is to say, worthless—can be the easy way out. It can involve less work and less risk than declaring the tracts viable and coming up with valuations that energy companies could force the Department to defend.

When the government concludes that tracts are viable, it conducts a more thorough geological and economic assessment. It decides whether to accept the high bids based on measures it generates to appraise individual tracts. A pivotal measure is the awkwardly named "Adjusted Delayed Value," or "ADV."

On average, for tracts the Interior Department considered viable, the high bids that companies placed were over six and a half times that measure of market value, POGO found.

For example, in the most recent auction, for one of the few tracts that drew competing bids, the high bid was $5.7 million. That was almost six times the government valuation of $980,000, according to a government document.

POGO's examination of Interior's bid adequacy determinations is based on data available online detailing the government's treatment of 13,212 high bids that companies submitted for Gulf of Mexico tracts since 1997.

One way to look at this picture: The government consistently got more money than it thought the tracts were worth. Another way of looking at it: The government consistently underestimated the market.

Either way, the numbers beg the question: How much more could the government have gotten if it set higher expectations or ran more competitive auctions?

Further research by POGO supports the theory that more head-to-head bidding could yield higher bids. When there was only one bid on a tract—by far the most common scenario—that bid was, on average, more than double the ADV. When there were two bids on the same tract, the high bid was, on average, more than triple the ADV. When there were three bids, the high bid was, on average, almost quadruple the ADV. And, when there were four bids, the high bid was, on average, more than quintuple the ADV. Beyond that range, the number of bids trailed off and the consistency of the pattern faded.

It is of course possible that the tracts drawing multiple bids were more valuable to begin with.

Interior's Bureau of Ocean Energy Management (BOEM), which manages offshore drilling rights, acknowledges that some bidders have gotten bargains. "[I]n some cases BOEM issued leases where it estimated the block values to be negative, the blocks were issued for near minimum bid, and the lessees made discoveries of substantial size,” Bureau planning documents say.

The most recent auction, held in August 2017, showed how different companies can attach different values to drilling rights and illustrated the potential value of competition. In one of those rare cases in which companies went head to head for the same tract, one bid $3.5 million and the other bid more than triple that amount—$12.1 million.

A 2008 auction for drilling rights in Alaska’s Chukchi Sea made the point even more vividly. For a tract called block 6763, the lowest of several bids was just over $100,000. The highest was more than $100 million. The unusually robust competition came amid a spike in oil prices.

The data POGO analyzed suggest that, to divine or demand market value, there may be no substitute for a truly competitive market.

The problems are particularly worthy of attention now. Last month, the Trump Administration unveiled the first draft of a new five-year plan for issuing offshore leases, and, as part of that effort, it proposed opening almost all of the U.S. outer continental shelf to drilling. That includes previously off-limits parts of the Arctic, Atlantic, and Pacific, as well as Florida’s Gulf Coast.

Expanding drilling while using the same uncompetitive leasing system could perpetuate the problems on a larger scale.

Art of the Deal?

The latest auction of drilling rights illustrated the system’s flaws. The Trump Administration has been spinning it as a success and has tried to take credit for it.

A March 2017 news release from the Interior Department heralded the offering.

“Secretary Zinke Announces Proposed 73-million Acre Oil and Natural Gas Lease Sale for Gulf of Mexico,” the headline on the release said. The August 16 auction “would include all available unleased areas in federal waters of the Gulf of Mexico,” the announcement said.

In the news release, Interior Secretary Ryan Zinke offered this explanation: “Opening more federal lands and waters to oil and gas drilling is a pillar of President Trump’s plan to make the United States energy independent.”

On its face, the proposed liquidation sale raised some basic questions. Why dump the entire inventory at a time of relatively low energy prices? For a president who titled his first autobiography *The Art of the Deal*, what kind of deal-making was that? Would it amount to a giveaway? And how much inventory could energy companies buy at any one time?

As it turns out, the announcement was misleading. The problems ran deeper.

Since 1983, the government has been holding auctions in which all unleased tracts in vast areas of the outer continental shelf—rather than just a select subset —have been up for bid. The approach is known as “area-wide leasing.” Planning for the August 16 auction began during the Obama Administration. The results were typical.

Companies bid on less than 1 percent of the 76 million acres up for sale.

Among the small number of tracts that drew any bid, only 10 percent drew more than one bid, and none drew more than two bids. For tracts on which anyone bid, the average number of bids was 1.1.

As the government tells it, the auction showcased the Trump Administration’s good work: making the Interior Department “a better business partner” and ensuring that taxpayers receive “a fair return” on federal resources.

“Let’s make some money for the American people,” Katharine MacGregor, a Trump appointee at the Interior Department, declared as she opened the auction.

But the dearth of competition echoed monotonously as MacGregor opened and read aloud bidding results, identifying swatches of the sea floor by their names and numbers.

“Garden Banks Block 78, one bid . . . .”

“Garden Banks Block 121, one bid . . . .”

“Garden Banks Block 122, one bid . . . .”

With almost no head-to-head bidding, more than 80 percent of the bidders came out as the high bidder for every offshore lease on which they bid. One bidder went 10 for 10.

The companies bidding in the auction included Chevron, Exxon Mobil, BP, and Shell.

The winning bids averaged $235.12 per acre, which on an inflation-adjusted basis was only 2.6 percent of the average under the prior leasing system.

Companies bid millions of dollars on tracts the government called “non-viable.”

“Corporate Welfare”

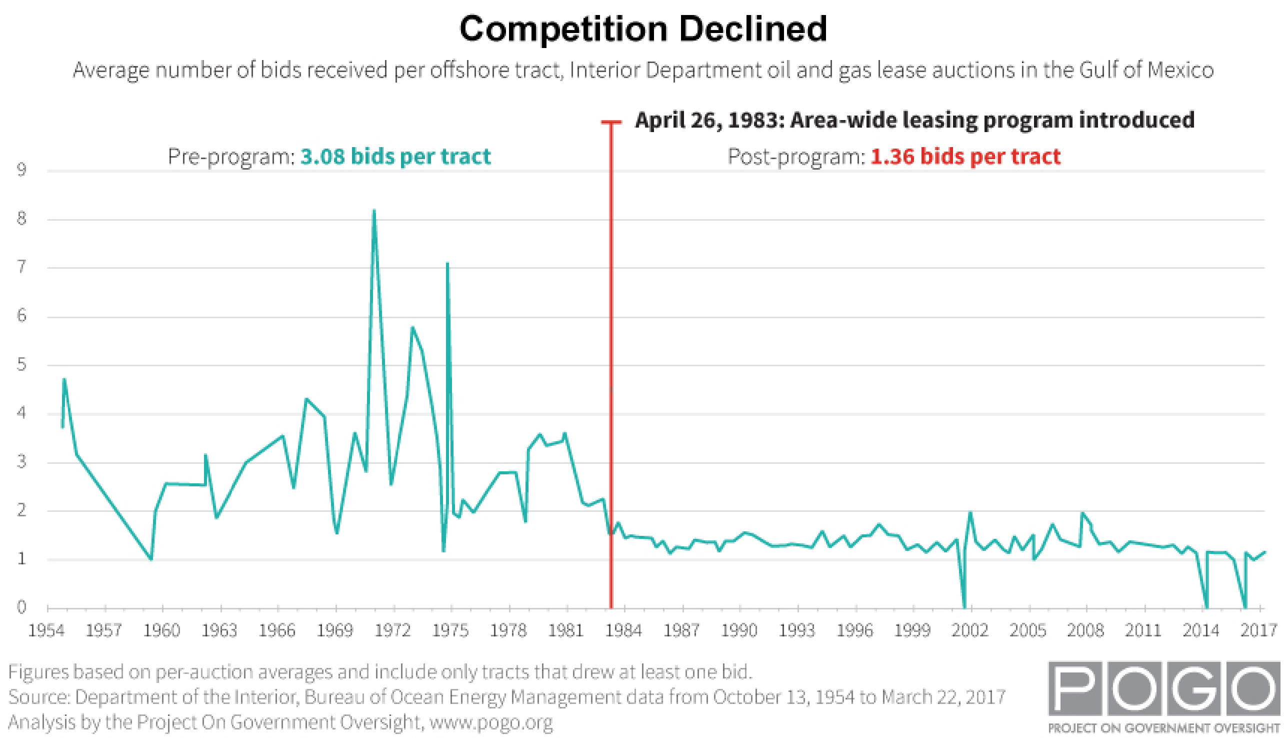
The lack of competitive bidding in the August auction could be ascribed in part to depressed fossil fuel prices. It could also reflect diminishing returns in the Gulf of Mexico, where shallow-water drilling has been going on since the 1930s. However, it fits a pattern since so-called “area-wide leasing” was introduced in 1983.

For decades, even when oil prices were higher, sales of Gulf of Mexico leases have been defined by a near absence of actual competition.

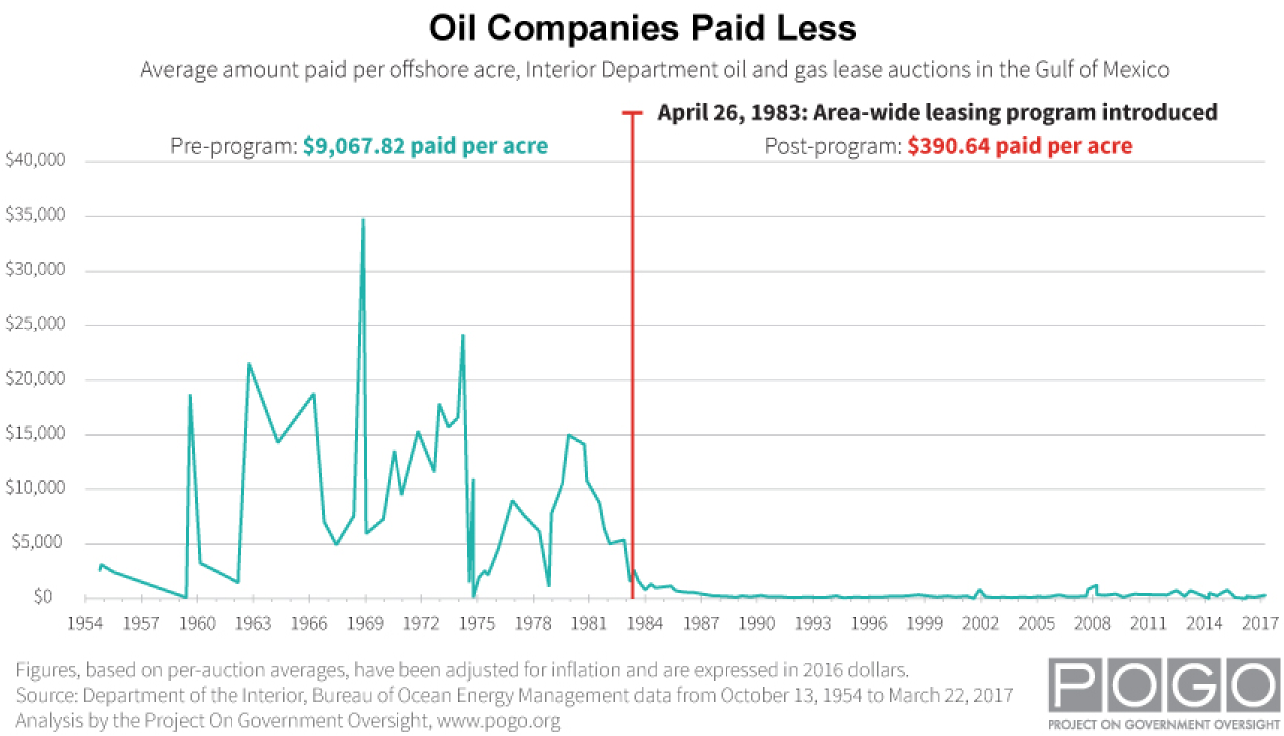
POGO's analysis of auction competitiveness focused on the Gulf of Mexico because, in recent decades, that has been by far the main arena for U.S offshore oil and gas production and lease sales.

In almost every sale since the Reagan Administration redesigned the auction system, **just a small percentage of the Gulf tracts put up for auction have been bid upon**. On average, over the nearly 30 years preceding the change, 62 percent of tracts offered were bid upon in each auction. For the 34 years since the change, that average has fallen to 8 percent.

For the era before the change, the number of bids per tract leased in each auction averaged 3.08. For the era since then, it has plummeted to 1.36, POGO's analysis of federal data found.

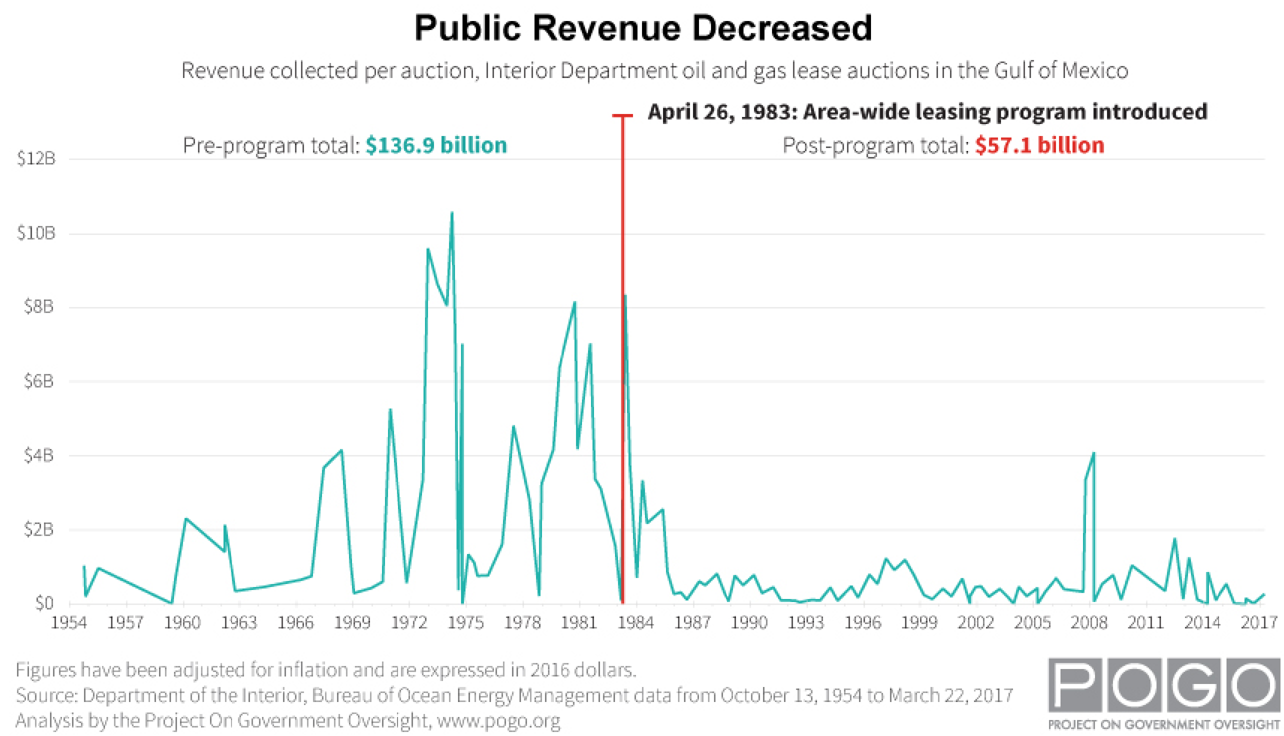


Meanwhile, the average price per acre leased in each auction—as measured in 2016 dollars—**plunged by 95.7 percent**.



To assess whether the government has made up through the amount of leasing what it has lost on prices, POGO compared the period of roughly 29 years before area-wide leasing was introduced to the period of roughly 34 years since. (The relevant data available online go back to 1954.) Overall, the number of acres leased rose from about 17 million in the earlier era to about 128 million in the more recent era.

On an inflation-adjusted basis, **the government's revenue from auction payments declined** from about $137 billion over a period of less than 30 years to about $57 billion over a period of more than 30 years.



The system has amounted to "a clumsy and wasteful form of corporate welfare," Juan Carlos Boue, an industry consultant and researcher at the Oxford Institute for Energy Studies, said in an email to POGO. The government's approach has "transferred billions of taxpayers' dollars into the coffers of major oil companies," he added. Boue was reiterating the assessment he expressed in a 2006 book on offshore economics.

Instead of vying for the same tracts, potential rivals have generally pursued different targets. Some potential rivals have teamed up to submit joint bids.

POGO has no evidence that bidders have colluded to steer clear of each other. However, in research presented at a January 2018 economics conference, a team of professors used statistical tools to study the issue. "The bidding patterns are consistent with collusion," co-author Robert H. Porter, a Northwestern University economist, summarized in an email to POGO.

The bidding patterns do not necessarily reflect illegal activity or explicit communication among potential bidders, Porter added. If tracts in particular areas or having particular characteristics "are commonly understood to be associated with particular firms," companies don't have to communicate to stay out of each other's way, he explained.

A former Congressional investigator also expressed concern.

"I think when you get single bids all over the place, that would raise a red flag . . . . It caused me concern," said Reece Rushing, who examined offshore leasing when he was director of oversight and investigations on the Democratic staff of the House Natural Resources Committee.

"You would want a system where you have competing bids to the maximum extent possible, and that's clearly not the system that we have," Rushing said.

Reagan Revolution

The current auction system has its roots in a push to transfer public assets into private hands.

"I want to open as much land as I can," James Watt, who at the time was Reagan's Interior Secretary, told *The New York Times* in 1982. "We are trying to bring our abundant acres into the market so that the market will decide their value," Watt said.

Major oil companies were lobbying for something along those lines. They wanted to reduce competition, bring down the cost of acquiring leases, and offset the soaring costs of deepwater development, oil historian Tyler Priest has written. At Watt's Interior Department, representatives from Shell laid out a proposal for "broad-area leasing," Priest recounted in his book, *The Offshore Imperative: Shell Oil's Search for Petroleum in Postwar America*.

Watt delivered, and Shell in particular "could take some credit for helping bring about this major policy change," Priest wrote.

Before the 1983 shift, companies nominated and the government chose offshore tracts for inclusion in auctions. That limited the number of tracts for sale at any one time, and it focused prospective bidders on tracts that at least someone had identified as potentially valuable. It forced companies to tip their hands about the tracts that interested them.

Area-wide leasing swept that aside. Under the new system, everything in, for example, the Western Gulf of Mexico or the Central Gulf would be up for grabs at one time. The last five-year leasing plan, drafted by the Obama Administration in 2016, called for even bigger auctions featuring every tract in the Gulf of Mexico not subject to a ban on drilling. The August 2017 sale followed that plan.

The states of Texas and Louisiana sued the Reagan Administration over area-wide leasing, which they argued decreased competition for leases and thus would reduce revenue flowing into public coffers.

In an affidavit supporting Texas's lawsuit, economist Joseph Stiglitz, who later won a Nobel Prize and is now a professor at Columbia University, stated, "Seldom have I encountered situations, however, where the evidence of the significant cost of a program (areawide leasing) is so overwhelming while the benefit—if indeed there is any—is so weak."

The state of Louisiana continued its opposition to area-wide leasing into the 21st century. In a 2007 letter to the Interior Department, the head of Louisiana's Department of Natural Resources wrote, "[A]lternative leasing strategies could moderate the boom and bust effect that areawide leasing has on the oil industry and supporting communities and infrastructure, as well as increase competition for, and revenue from, the finite oil and gas resources in the Gulf of Mexico."

Marshall Rose, who served as BOEM's chief economist from 1983 through 2016, told POGO that, today, the number of bids per tract is "barely more than one." That is the nature of area-wide leasing, Rose said. But Rose said he doesn't think the picture "is quite as bad as it looks." As a measure of competition, the number of bids per tract doesn't reflect the number of companies that looked at the tracts and considered bidding on them, he said.

POGO asked Rose why it has been commonplace for BOEM to accept bids on the grounds that it considers tracts non-viable.

The government declares tracts non-viable—meaning "worthless"—when evidence suggests that they contain no hydrocarbons or too little to make drilling worthwhile, Rose said.

But determining what tracts are worth isn't always easy, he said.

Under area-wide leasing, "there are so many tracts out there that the Bureau in some cases just has very little data on which to base its evaluations," he said.

When its information is thin, the Bureau "is inclined to be cautious" about declaring a tract viable, Rose said. If it declares a tract viable, it must come up with an estimate of its value. If the estimate causes a bid to be rejected, the bidder could appeal, forcing the Bureau to justify its valuation, he explained.

"Where it leads is that the Bureau tends to be careful about coming up with values that might be questioned," Rose said.

POGO also asked Rose why companies generally bid much more than BOEM estimates the tracts are worth. Part of the explanation, Rose said, is that the Bureau "has been pretty conservative in terms of its estimates" because it "considers the market fairly competitive."

In deciding how aggressively to set valuations, Rose said, the Bureau balances goals: assuring that it gets fair market value and issuing leases.

"And it doesn't want to have an excessive amount of bid rejections after it goes through the trouble of holding a sale," he said.

Underestimated

In the federal auctions, bidders submit sealed bids, and there is no opportunity for them to drive up prices through back-and-forth bidding. Companies deciding how much to bid can factor in this knowledge: in most instances, if more than three decades of history is any guide, no one will bid against them.

The scarcity of head-to-head bidding might be less of a problem if the government had other robust means of making sure that energy companies pay a fair price for drilling rights.

The Interior Department sets a floor on the bidding. Currently, the minimum bid the government will consider accepting for tracts in water at least 400 meters deep is $100 per acre. That's up from minimums of $25 to $37.50 per acre from early 1987 to early 2010.

But it's still down by a third from $150 per acre in the early years of area-wide leasing, and that comparison doesn't take into account the effect of inflation. In 2016 dollars, the minimum from years ago would amount to more than $360 per acre.

Before declaring winners in the auctions, the Bureau reviews the high bids in an effort to make sure they are adequate. For tracts it deems non-viable, the minimum bid is all it takes to win a lease.

The Bureau rejects hardly any bids as too low. In the most recent auction, 7.8 percent of the high bids—7 of 90—were rejected. That was more than usual. Since 1984, the Bureau's reviews "have resulted in an average rejection rate of bids of approximately 3.7 percent," BOEM has disclosed.

(Using BOEM data, POGO arrived at a slightly lower average rejection rate. Since area-wide leasing was introduced, an average of 3.2 percent of bids per auction in the Gulf of Mexico have been classified as rejected or withdrawn, according to a POGO analysis of government data that lumps the two categories together. That's down by more than half from 6.9 percent in the period before area-wide leasing.)

The rejection rate is generally "way too low," Rose said. To deter companies from submitting lowball bids, the rejection rate should be "much higher," he said. For the same reason, he said, the government should raise the minimum bid.

The government evaluates companies' bids based in part on seismic research and other data obtained from the oil and gas industry. Individual bidders are required to submit data they used as part of their decision to bid.

However, without a competitive market, it may be hard for anyone to know the market value of a lease or whether a particular bid meets it.

In an October 2017 presentation to an Interior Department advisory committee, Department economist Benjamin Simon put it this way: "Determining FMV [fair market value] is challenging in situations where competition is limited."

One of the measures the government uses to determine fair market value, known by the technical term "Mean Range of Values" or "MROV," is defined in a 2016 document as the "maximum" amount that a bidder could offer and still expect a normal rate of return on its investment. Yet many of the bids have exceeded that estimated maximum by wide margins.

POGO found that 93.3 percent of more than 10,000 high bids over the past 20 years exceeded what was listed as the MROV for those tracts. On average, they exceeded the MROV by 392.9 percent. Meanwhile, 95.2 percent of them exceeded another valuation measure, the ADV mentioned above. On average, they exceeded what was listed as the ADV by 399.0 percent.

BOEM's website describes the elaborate efforts the Bureau makes to determine a tract's fair market value, at least in certain cases. It says BOEM uses "a computer simulation model," and that federal "geologists, geophysicists, petroleum engineers, economists and computer scientists prepare detailed estimates of the economic value of oil and gas resources on each tract."

Nonetheless, most of the posted estimates look like they were made with a cookie cutter.

For example, over the past six years, 56.9 percent of the posted government estimates were identical: $576,000. That equated to $100 per acre, which for those years was the floor the government had set on bids for tracts in deeper water.

What's behind the cookie-cutter numbers?

Based on explanations of the process published in the Federal Register and on the BOEM website, it appears that the government does not generate specific valuations for some or all tracts it considers non-viable.

Rose, the former chief economist, said that when he was at the Bureau it did not develop valuations for tracts it considered non-viable.

For other tracts, BOEM has been less than transparent.

Where BOEM's estimate was lower than the minimum bid, BOEM hasn't disclosed its estimate, Rose said. Instead, it has listed the minimum as its estimate. "[T]here's a hidden value that you don't see," Rose said.

The lack of transparency limits the Bureau's accountability. It also contrasts with information that the Bureau gave to a Member of Congress in 2012. In written answers to questions from Edward J. Markey (D-MA), who was then Ranking Member of the House Committee on Natural Resources and has since been elected to the Senate, BOEM said it "publishes its estimates of tract values" in a report on "each sale."

Lowering the Bar

Digging deeper into the arcane process of bid evaluation, POGO noticed another oddity. To understand it, one must slog through potentially eye-glazing technicalities. Bear with us.

In simplest terms, if bids don't clear the bar, the government can lower the bar.

Under procedures BOEM has published, even bids that fall short of the Bureau's MROV estimates can be accepted if they meet an alternative estimate.

That alternative is known as the "Delayed MROV" or "DMROV."

The delayed measure is BOEM's effort to account for the potential cost of rejecting a bid and waiting to offer the tract again in the next available auction. It is BOEM's estimate of what the tract would be worth then, taking into account payments foregone or delayed and any draining of energy deposits that might occur in the meantime—say, as a result of other wells tapping the same oil reservoir.

(The number that ultimately counts is the lesser of the MROV or the DMROV. At the risk of drowning you in alphabet soup, the lesser of the two is called the Adjusted Delayed Value or ADV, referenced above.)

The government's use of that alternative measure can result in head-scratching outcomes.

When the Bureau considered bids placed in the August 2017 auction, it determined that the MROV for one tract was $17 million and that the delayed value of the tract was $6.9 million. In other words, BOEM estimated that, over several months, an unusually valuable tract would lose more than half its value. On that basis, BOEM accepted a bid of $12.1 million, much less than it said the drilling rights were worth at that time.

Given that oil prices can rise or fall unpredictably over time, it isn't obvious that delaying the sale of drilling rights would reduce their value. In fact, by the government's own account, rejecting bids and offering the tracts again later "has consistently resulted in higher average returns in subsequent lease sales for the same tracts, even when those tracts not receiving subsequent bids were included in the calculation of the average returns."

In the Gulf of Mexico from 1984 through 2017, BOEM has stated, the Bureau "rejected total high bids of $638 million, but when the blocks were reoffered, they drew subsequent high bids of $1.8 billion, for a total net gain of $1.2 billion, or an increase of 187 percent."

The government has cited those gains as evidence that the system is working.

The Statistician's Take

When POGO analyzed the government's treatment of thousands of bids spanning decades, it found that the government accepted a large majority of the bids on the grounds that the tracts were non-viable. Searching for an explanation, POGO discovered that someone else had noticed the same trend: Ted D. Tupper, a statistician and data miner who played an inside role in the process.

Tupper retired in 2007 after more than 20 years at the Minerals Management Service, which was a predecessor to BOEM. During his time at MMS, he managed software the government used to evaluate bids, he told POGO.

In 2014, when BOEM issued a highly technical notification that it was planning to tweak its bid review procedures, three parties filed comments. One was an oil company. Another was an oil industry lobby. The third was Tupper.

"On the topic of improving the FMV [Fair Market Value] process, the principle [sic] problem is the viability/non-viable decision," Tupper wrote.

The majority of producing tracts had been classified as non-viable at the time they were leased, Tupper added, citing research he had done in 2012.

The Bureau's resource evaluation unit "needs to understand why so many non-viable tracts become productive," he wrote.

When it comes to the software and hardware used to interpret geologic data, the private sector's deeper pockets give it an edge over the government, and there are cases in which companies have an information advantage, Tupper told POGO in an interview. If companies have a better understanding of the data than the government does, "they may be able to get something for real cheap," he said. Tupper also said he identified four cases "where the oil companies got away with a big steal," making major oil discoveries on tracts originally classified as non-viable.

Tupper told POGO that studying policy issues like these is his hobby in retirement, and he has a recommendation for the government: It should reject bids for tracts it considers non-viable. Then, if companies want to lease them anyway, they should be required to explain to the government why they believe the tract is worth something.

"It would make us smarter," Tupper said.

Asked about the government's procedures for evaluating bids, Tupper said, "The system is designed to try to get things accepted." That has been the philosophy since Jim Watt's day, he added.

Nonetheless, Tupper said it's relatively rare for the government to make a big mistake, and he said energy companies have generally been overpaying.

"In general, we're getting market value and much better than market value," Tupper said.

"The reason is that the private sector is bidding on lots of stuff which is extremely speculative," he said. "They're buying lottery tickets."

Public Assets, Private Upside

One of the Interior Department's primary aims is to promote energy production, but on that count, too, the leasing system gives reason for concern. It allows companies to gain control of drilling rights for years and then sit on them instead of drilling.

The system makes it relatively inexpensive for companies to speculate in offshore leases—to snap them up and then hold them in case, say, a nearby discovery or an increase in oil prices gives them a compelling reason to drill.

One could argue that, from the government's standpoint, getting anything for the leases is better than getting nothing. One could also argue that putting the tracts in companies' hands moves them a step a closer to producing oil or gas.

On the other hand, if a tract proves more valuable than the auction payment reflects, it's the company that is shrewd or lucky enough to have leased it that reaps the gain rather than the U.S. taxpayer. In that scenario, the company isn't just making a profit; it's receiving a windfall at the public's expense.

Also, the public might be served better if the drilling rights were in the hands of someone who would actually use them—instead of tying them up and preventing others from using them.

POGO's analysis of the most recent auction showed how leasing can play out.

All but two of the 90 tracts that drew bids in the August auction had previously been under lease, and many of them had been leased multiple times, POGO found. More than three quarters of the tracts that had been leased before had no history of ever having been drilled, according to searches of a government database that goes back to 1947.

For most of the tracts that had been leased before, no one had even taken an initial step toward drilling: submitting exploration plans for review. At least as reflected in a federal database that goes back to 1972.

Instead, while they were under lease, the tracts were left dormant.

By encouraging energy companies to lock in drilling rights when oil prices are relatively low, the Trump Administration could be passing up the chance to sell the rights for more money later. Though still lower than they have been for much of the past decade, oil prices are already up substantially since the last auction.

Rose, the former chief economist at BOEM, said that, inside the Bureau, he argued against rushing to lease as much as possible as soon as possible. He said the optimal time is not always the present, and some deposits should be held for future generations.

"I always maintained that we don't need to lease everything now," he said.

Political people at the Bureau saw it differently, he added. They seemed to equate success with leasing as much as they could.

Leasing portions of the Outer Continental Shelf incrementally instead of all at once would enable the government to gather information about potential energy deposits as drilling unfolds, Rose told POGO. That would help the government to make better assessments of what tracts are worth, he said.

As it is, with so many tracts potentially in play in each auction, the government is left to make rushed evaluations once the bids are in, Rose said.

No Comment

POGO sought input for this report from the Interior Department and industry representatives but met almost complete silence.

Interior Department Press Secretary Heather Swift did not respond to interview requests. The Bureau did not grant requested interviews or answer written questions. For a time, BOEM spokeswoman Tracey Blythe Moriarty held out hope. “Working it,” she emailed on December 6. However, almost a month after POGO submitted written questions, Moriarty wrote:

“Most of the information you are seeking is available on our website, but it will take a considerable amount of time to compile. Please send your questions as a FOIA request, and we will be happy to process the request.”

FOIA—the Freedom of Information Act—governs the release of records. According to a federal primer on the law, “The FOIA does not require agencies to … answer questions.” In addition, agencies routinely deny FOIA requests on the grounds that the requestors are asking questions instead of requesting records that they have adequately described.

The law does not prevent the government from answering questions such as:

Could the system be improved? If so, how? If not, why not?

Why has there been so little head-to-head bidding for offshore leases?

How does BOEM respond to criticism that the system amounts to a giveaway of public resources to energy companies?

The Bureau did not respond to a set of follow-up questions sent in January.

The American Petroleum Institute (API), a trade association for the oil and gas industry, did not respond to interview requests.

A spokesman for another industry group, the National Ocean Industries Association (NOIA), said that the group's president was not available for comment on the subject of offshore leasing. When asked if anyone else at the organization would talk to POGO, the spokesman, Justin Williams, did not respond. (The president of the organization, Randall Luthi, symbolizes the Bureau's historically close relationship with industry. Luthi formerly headed the Interior Department's Minerals Management Service, a predecessor to BOEM.)

Several energy companies acknowledged but did not follow up on inquiries from POGO.

In an August 2017 letter to the government, API, NOIA and other industry groups weighed in on how the next five-year plan for offshore leasing should be drafted.

"The Associations do not see a need to move away from the current lease-sale construct," they said. "The Associations fully support continued use of the current area-wide leasing program in all OCS [Outer Continental Shelf] areas," they added.

Tradeoffs?

Is there a better way?

Requiring that tracts be nominated for auction would raise federal income by $150 million over 10 years, the Congressional Budget Office (CBO) estimated in 2016. In the world of federal budgets, that may seem like small potatoes. However, it is much more than the federal agency that oversees offshore drilling, the Bureau of Safety and Environmental Enforcement (BSEE), spends on environmental enforcement. In the 2017 fiscal year, BSEE's budget for that amounted to $8.3 million.

More fundamentally, the $150 million estimate was influenced by the relatively low price of energy when the CBO report was written, said former CBO economist Andrew Stocking, co-author of the report. As energy prices rise, so do the stakes, he said.

According to information obtained from CBO, when CBO prepared its estimate, it was using economic projections from January 2016 that began with the price of oil (specifically, West Texas Intermediate crude) at $40 per barrel and anticipated it rising to $48.50 in the fourth quarter of 2017. As it turned out, by the end of 2017, that price had risen to more than $60. (As recently as 2008, it was north of $145.)

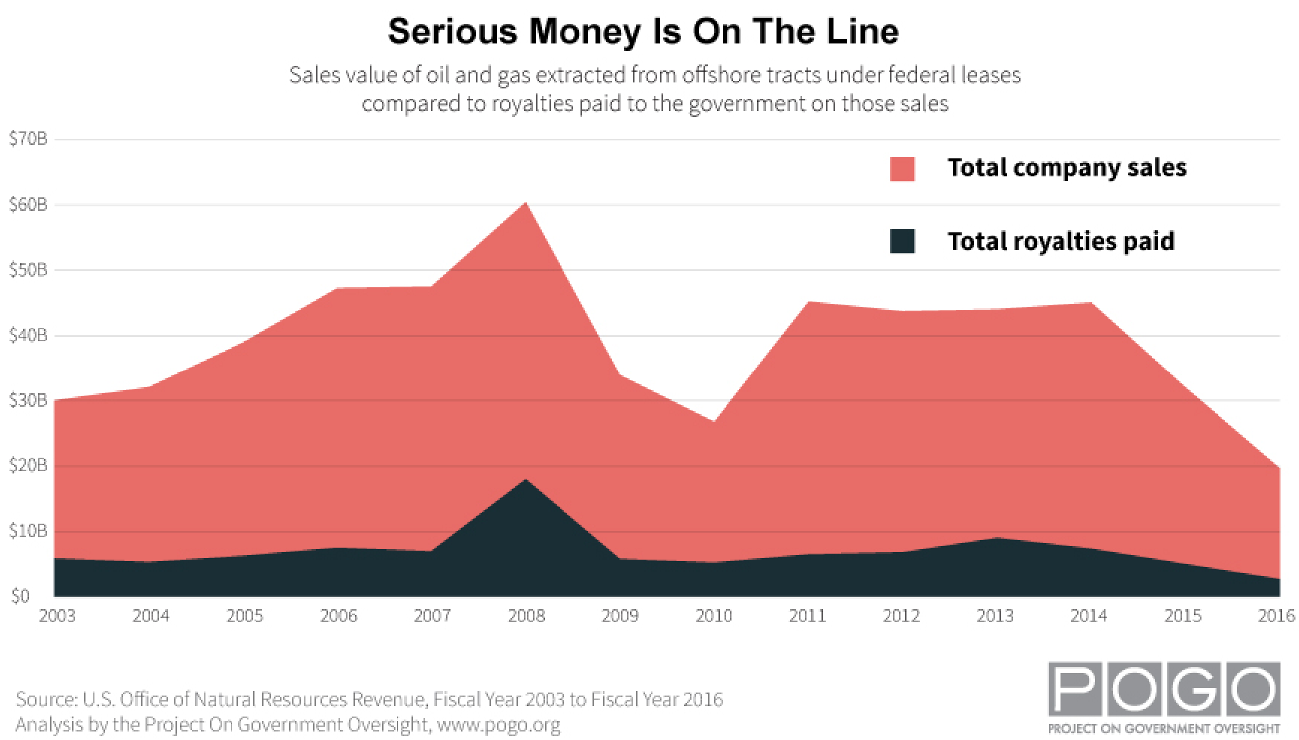
The thinking behind CBO's estimate remains largely opaque, and POGO is unable to explain how it squares with the tens of billions of dollars by which auction payments have declined since area-wide leasing was introduced.

In October 2017, while POGO was working on this report, the ranking Democrat on the House Committee on Natural Resources, Representative Raul M. Grijalva (D-AZ), asked the Government Accountability Office to study the advantages and disadvantages of returning to the old leasing system.

Some contend that the government faces potential tradeoffs—that allowing bidders to pay less up-front for drilling rights could lead to increased production and higher revenues of a different kind over the long run, and vice versa.

By way of context, the sums the winning bidders pay at auction (known as "bonuses") are not the government's only revenue stream from offshore drilling rights. While the tracts are under lease, the government collects relatively modest annual rents. Once the tracts start producing oil or gas, the government collects a percentage of the sales in the form of royalties.

Further, the government's goals go beyond generating a financial return for taxpayers. Other objectives, which may be at odds with each other, include protecting the environment and boosting energy production.



Based on a study commissioned by the government and completed in 2010, reverting to auctions in which only select tracks are offered would increase revenues from auction bidding, industry associations told the government. However, they said, the study also indicated that those revenue gains "would likely be offset by lower revenues in the future."

The last five-year leasing plan developed by the Obama Administration discusses the same research. As the plan boils it down, the research suggests that, if the government went back to the old auction system, higher up-front payments "would be largely offset by" fewer tracts leased, less drilling, slower discovery of energy deposits, less future production of oil and gas, and lower revenues from rent and royalty payments.

But the planning document also undercuts that reasoning. It shows why any connection between up-front auction payments and long-term production or royalty levels may be highly attenuated.

“Activities such as the eventual exploration or production in these regions will be based on other factors (e.g., prices, rig availability, company operating budget) rather than on the number of lease sales,” the plan says.

Whether companies invest in costly offshore drilling is influenced by factors as varied as the price of oil and gas, economic growth rates, world events, and technological advances, the plan notes. Royalty payments, in turn, are a function of prices and production volumes.

From the time a tract is leased to the time production of oil or gas begins, a decade or more can pass, the plan says.

The 2016 CBO report showed how far removed royalty payments can be from auction payments—time in which the industry, the market, and the world can change dramatically. In 2013, about 8 percent of offshore royalty income came from parcels that were leased in the previous 10 years, and the majority of the income came from parcels that were leased more than 20 years earlier, CBO reported.

Even over shorter periods, forecasts of oil prices can be wildly off the mark. For example, in a set of economic projections from August 2014, CBO estimated that, in the fourth of quarter of 2017, by one measure (Refiner’s Acquisition Cost of Crude Oil, Imported), the price of oil would be $93.40 per barrel. As of November 2017, mid-way through the fourth quarter, it was actually $56.21, a difference of almost 40 percent.

Since area-wide leasing was introduced, production of oil in the Gulf of Mexico—including any production from tracts leased earlier—has increased, according to data from the U.S. Energy Information Administration.

Boue, the researcher at the Oxford Institute for Energy Studies, sees no causal connection. In the once inaccessible deep waters of the Gulf, technological progress would likely have led to increased production with or without area-wide leasing, he said.

Meanwhile, federal data that go back only as far as the 1990s show that natural gas production in the Gulf has declined.

The government seems to have recognized at times that it had a problem with companies sitting on drilling rights. Over the years, it has tried to give companies stronger incentives to use those rights. For example, it has raised minimum bids, adopted annual rental rates that escalate over time, and shortened the length of time that companies can hold certain leases without drilling.

The government also has called for exceptions to area-wide leasing in areas off Alaska. Plans drawn up during the Obama Administration prescribed a more targeted approach to leasing there that would take into account considerations such as environmental protection.

When all possible drilling sites in a vast area are up for grabs, it's harder for the government to study any particular site, said Michael LeVine, an attorney with the group Ocean Conservancy.

The Trump Administration has acknowledged that tradeoff. Lease sales limited to selected tracts "would tend to sell fewer leases and allow more focused environmental analyses," the recently released first draft of the Trump Administration's five-year plan says.

The draft indicates that important decisions lie ahead.

"BOEM will continue to analyze the use of area-wide leasing and focused leasing," it says. The Bureau will consider fair market value, environmental factors, and the use of waters for subsistence hunting and fishing "when determining whether to hold area-wide or more focused lease sales in a particular area," the draft says.

Alarms

From the beginning, critics worried that the Reagan Administration's leasing program would amount to a fire sale, as the *New York Times* article from 1982 noted.

Before long, the Government Accountability Office, then known as the General Accounting Office, was reinforcing those concerns. A 1985 GAO report on the first 10 area-wide sales found that the government received about $7 billion less than it would have under the former system. "GAO's analyses indicated that the stepped-up pace of area-wide leasing, by itself, significantly decreased competition and government bid revenues for individual tracts," the report said.

The Interior Department hoped to make up the money over the long run, the GAO noted.

(At the time, the Interior Department had a rule of thumb for assessing whether bidding was competitive enough to ensure that the public was getting a decent price. It defined adequate competition as at least three bids per tract, the GAO noted. But even the receipt of three bids was no guarantee that the government was receiving fair value—partly because some companies were clearing the hurdle by bidding against themselves, the GAO said. In any event, "relatively few tracts are expected to meet this criterion in future sales," the GAO added.)

Since then, other researchers have drawn conclusions similar to GAO's based largely on some of the same types of Interior Department data that POGO analyzed.

"Our results suggest that the mechanism for allocating leases worked reasonably well prior to 1983," Kenneth Hendricks of the University of Wisconsin-Madison and Robert H. Porter of Northwestern University, who have studied offshore leasing in a series of academic papers going back to 1988, wrote in 2013. "Most of the auctions were competitive, auction revenues were high, and the government captured most of the economic rents through a combination of [auction] and royalty payments," they wrote.

By "economic rents," a term used by economists, they essentially meant "upside."

"The mechanism did not perform nearly as well since 1983," Hendricks and Porter added. "Most of the auctions were not competitive, auction revenues were low, and a large share of the economic rents was captured by the bidders, especially on deep water tracts."

Much of the leasing had been speculative, the professors found.

They recommended switching to auctions with multiple rounds of ascending bids.

They did, however, find a point potentially in favor of area-wide leasing.

"The wide-spread availability of tracts generated a lot of speculative bidding and much lower drill rates, but it also increased the rate of exploration and development," they wrote. "The number of tracts drilled in the twenty year period from 1983 to 2003 was approximately twice the number drilled in the almost thirty year period from 1954 to 1983," they said.

Researchers Robert Gramling and William R. Freudenberg called area-wide leasing "the Great Offshore Giveaway."

"Watt's strategy worked in that it provided a mechanism to transfer publically owned resources to some of the wealthiest corporations in the world quickly, efficiently, and cheaply," they wrote in a 2011 article published by the *American Behavioral Scientist*.

In 2012, Markey, then the ranking Democrat on a House oversight committee, noted the lack of competitive bidding and asked the Interior Department about it. Was the government doing all it could to make sure the public received fair value for leases? And were there signs of collusion?

BOEM responded, in essence, that the system was functioning well and that efforts to improve it were likely to backfire.

Only a relatively small number of companies have the ability to operate in deep water, and the costs limit the number of deep water projects those companies will take on, the Bureau wrote. Auctioning fewer tracts to boost competition "may have the adverse effect" of reducing energy production over the long term, the Bureau added. What's more, the Bureau argued, holding multiple rounds of bidding would probably reduce lease prices because merely edging out the runner-up would be enough to win.

As for collusion, BOEM offered a more qualified answer. The Bureau's analysis of lease sales in Alaska "has not been able to preclude the possibility that simple chance" explains "the small number" of dueling bids. In the Gulf of Mexico, in light of the number of tracts up for bid, "many non-overlapping bids are expected," BOEM said.

Yet, perhaps unintentionally, BOEM also showed why giving up auction revenues for hypothetically higher royalties way down the road could be a bad bet.

"True tract values emerge only after a 20 to 30 year period for those leases that are drilled successfully and result in production," BOEM said. "Forecasts of the dollar value of tracts are unreliable because of the volatility over time in the numerous variables that affect actual tract value."

Loose translation: What happens over the long run is anybody's guess.

The government may be sacrificing a proverbial bird in the hand—higher auction revenues—for a bird in a distant bush, and the bush may be a shimmering mirage.

In the meantime, the auction goes on.

The Interior Department has scheduled another sale for March. In a recent Department news release, Republican politicians touted it as a bold stroke by an Administration that understands the benefits of expanding offshore energy—an Administration determined "to open a vast tract of American waters to oil and gas exploration."

"Secretary Zinke Announces Largest Oil & Gas Lease Sale in U.S. History," the news release said. "March 2018 sale to offer 76.9 million acres in Gulf of Mexico."

POGO's methodology in acquiring and analyzing Department of Interior data can be found here.

Recommendations

Based on its investigation of offshore leasing, POGO makes the following recommendations to the federal government:

1. **Reject bids on tracts the government considers worthless, or "non-viable,"** as former Interior Department statistician Ted Tupper has proposed. Currently, when the government classifies tracts as non-viable, it lets companies lease them for its minimum price. Instead, the government should require bidders to explain why they see value where the government does not. That would help the government overcome a potential information disadvantage and insist on receiving fair value.

2. **Investigate the Interior Department's system for determining whether offshore tracts are viable.** The Department has classified almost 80 percent of the Gulf of Mexico tracts on which companies bid as worthless. It has awarded the drilling rights on that basis. Many of the supposedly worthless tracts have gone on to produce oil and/or gas. Why does the Interior Department so rarely see value where energy companies see opportunity? Over the long run, how valuable have the non-viable tracts proven to be? Congressional committees, the Government Accountability Office, and the Interior Department Inspector General should investigate.

3. **Investigate the Interior Department's system for valuing those offshore tracts deemed viable.** The government's valuations are generally much lower than the values industry places on the tracts. Why? The Interior Department and independent authorities should examine the methods the Department uses to ensure that winning bids deliver fair market value. As part of that analysis, the government should take a close look at Interior's willingness to accept bids that are lower than its own initial estimates; in some cases, Interior does so on the questionable theory that the tracts would fetch even less money if held and offered for sale at the next auction.

4. **Don't engage in fire sales.** When energy prices are low, the government should preserve the option of auctioning offshore tracts later, when they might command higher prices. That way, the American people—as well as the companies that lease the tracts—could reap the gains. Holding fire sales is a bad idea for another reason: It makes it cheaper and more tempting for companies to snap up leases on a speculative basis and then tie up the tracts even if those companies are not motivated to drill or produce energy any time soon.

5. **Hold targeted auctions instead of area-wide auctions.** Auctioning fewer tracts at once would promote more head-to-head bidding, which could yield higher payments to the government and, by extension, the American people. If auctions were more competitive, the government could rely more on the market to value drilling rights, and it could rely less on its own limited ability to determine how much money tracts are worth. In addition, focusing auctions on a smaller number of tracts would enable the government to perform more focused economic and environmental analyses of the tracts actually in play. Also, if vast new areas were opened to drilling, as the Trump Administration has proposed, an incremental approach to leasing would allow the government to learn from drilling results and gather information over time about oil and gas deposits in those areas. Otherwise, the government risks parting with crown jewels before it has any inkling of their true value.

6. **Charge companies a fee to nominate tracts for inclusion in auctions**, as former Interior Department economist Marshall Rose has proposed. That would discourage companies from nominating tracts that don't really interest them just to divert other bidders.

7. **Charge companies a fee for bidding on tracts that they did not nominate**, as Rose has also proposed. That would give prospective bidders an incentive to focus the auctions—and the government's attention—on tracts in which they see the most potential. It would also penalize free riders—those bidders merely piggy-backing on the research of others. (But doing that without the other changes proposed here could backfire by reducing the number of bids.)

8. **Raise the minimum bids.** In the absence of head-to-head bidding, the minimum bids required by the government are often the only price hurdles bidders must clear to win drilling rights. The current minimums are too low to ensure that the public receives appropriate compensation for public assets.

9. **Reject more bids.** Combined with the low price hurdles and the general absence of competitive bidding, the low rejection rate encourages companies to underbid.

10**. Strengthen incentives for energy companies to use their offshore leases instead of sitting on them.** Only by drilling do companies produce oil and gas and generate royalty payments for the government. The current system makes it too easy for companies to tie up leases even if they lack the motivation or means to drill any time soon. To discourage speculation in offshore leases, the government should require companies to pay more money for the leases up front. Then, it should charge higher annual rents, and it should make sure the rents continue to escalate until drilling begins.

11. **Investigate whether bidders are sharing enough information with the government.** Bidders are required to disclose to the government information that goes into their bidding decisions. That's supposed to help the government assess how much the tracts are worth and whether the bids deliver fair value. It's supposed to protect the public from an information imbalance. Yet the government consistently places a lower value on tracts than bidders do, and it classifies many of the tracts on which companies bid as worthless. Is there something the bidders know that the government does not? Is there something the bidders aren't telling the government?

Finally, a word on priorities: **Focus on the bird in hand, not just the bird in the bush.** If there is a tradeoff between the revenue the government collects up-front through auction payments and the revenue the government has the potential to collect eventually through royalties on oil and gas production, the current system gives up too much on the front end. The long-term revenue is likely to be far off—if it materializes at all. The government should strike a healthier balance.

Drilling Down: Oil Companies Are Having Their Cake and Eating It, Too

pogo.org/investigation/2018/02/drilling-down-oil-companies-are-having-their-cake-and-eating-it-too

By David S. Hilzenrath & Nicholas Pacifico | Filed under investigation | February 22, 2018

4 minute read

(Photos: Shutterstock, Pixabay; Illustration by POGO)

U.S. Cuts Oil Companies a Break on Royalties

In theory, even if the government auctions offshore drilling rights for a song, taxpayers could benefit.

That's because the Interior Department collects royalties on the oil and gas that energy companies extract from federal property. The royalties are meant to ensure that the public shares the wealth that flows from public resources.

However, the Interior Department has a history of letting energy companies have their cake and eat it, too—by issuing drilling rights at liquidation-sale prices and cutting companies a break on royalties.

The government has foregone royalties as a matter of deliberate policy. It has also had a variety of troubles collecting royalties. For a while, it used a slipshod system to collect them, allowing itself to get shortchanged. In some instances, it has fumbled, letting companies off the hook. And, in still other cases, companies knowingly underpaid, the Justice Department has alleged. The Project On Government Oversight has reported extensively on those problems over the years.

The Government Accountability Office (GAO) has estimated that federal revenues foregone through one particular royalty snafu could total billions of dollars, if not tens of billions.

The policy of reducing or forgiving royalties has taken different forms over the years and is generally known as "Royalty Relief."

Under the Trump Administration, more "relief" may be on the way.

In March 2017, Interior Secretary Ryan Zinke established a "Royalty Policy Committee" to advise him on potential policy changes. The committee's members include several representatives of energy companies.

The committee is scheduled to meet in Houston on February 28, and at that meeting it may vote on recommendations, according to a notice in the Federal Register.

"The Secretary seeks to ensure the public receives the full value of the natural resources produced from Federal lands," the committee's charter says.

A Trump appointee who serves on the committee has signaled that the goal is "to make certain the royalty rate the government charges is competitive."

"And it's important to understand what was competitive yesterday may not be competitive today," Scott A. Angelle, Director of the Bureau of Safety and Environmental Enforcement (BSEE), said in the prepared text of a December speech.

"If it's good policy for America to have a lower royalty rate on new leases, it's great for America to have a lower royalty rate on existing leases," Angelle said in a September speech. "And there is some policy that allows BSEE director on a case-by-case basis . . . to evaluate those opportunities."

POGO obtained a video of the September speech, which was delivered to the Louisiana Oil & Gas Association, through the Freedom of Information Act.

"It ought to be about lowering royalty rates to get more production under the Reagan model that if you cut taxes you end up with more revenue for the government," Angelle said.

(Angelle appeared to be repeating a myth about Reagan-era tax cutting. Citing research conducted by the Treasury Department during the George W. Bush Administration, *The Washington Post*'s Fact Checker has reported that "the tax cut itself was a money-loser for the government." In response to an inquiry from POGO, BSEE spokesman Gregory Julian said Angelle's statements "were very general and intended to be thought-provoking.")

The government sent another signal that royalty rates could be in play while seeking public input for a new five-year plan on offshore leasing. It said royalty rates and "structures" were "subject to change." In a January draft of the plan, the Interior Department said it was considering an alternative to the current royalty system.

There's a lot of money on the line. Data POGO obtained from the government for fiscal years 2003 through 2016 tell the story. Over that 14-year period, under U.S. offshore leases, energy companies extracted oil and gas worth $547 billion. The royalties paid to the federal government on those sales amounted to $99 billion.

In the run-up to the most recent auction of drilling rights in the Gulf of Mexico, the Trump Administration sweetened the deal for bidders by lowering the royalty rate on wells in relatively shallow water by a third, from 18.75 percent to 12.5 percent.

Within parameters, the government has been willing to go even lower.

A 2007 letter from the Louisiana state government to the Interior Department bemoaned a federal "royalty relief" policy that allowed the royalty rate for certain deep water drilling "to go as low as a 0%."

Louisiana offered a pithy assessment.

"It seems imprudent for the federal government to allow the oil companies to take the people's minerals completely royalty-free."

Rollback: The Trump Administration Proposes to Thin Offshore Drilling Safety Rules

pogo.org/analysis/2018/12/rollback-the-trump-administration-proposes-to-thin-offshore-drilling-safety-rules

Examining the fine print

By David S. Hilzenrath | Filed under analysis | December 06, 2018

Six years after the Deepwater Horizon oil rig exploded in the Gulf of Mexico, killing 11 people and unleashing one of the worst environmental disasters in the nation's history, the Obama Administration put in place a set of rules intended to prevent future blowouts.

Now, two and half years after those safety rules were adopted, the Trump Administration has proposed undoing many of them.

Based on a Project On Government Oversight examination of the fine print, what follows are highlights of the Trump Administration's proposal. To put the proposed changes in context, POGO also has drawn on technical analyses of what went wrong in the Deepwater Horizon disaster and more recent offshore accidents.

The proposed regulatory rollback focuses largely on blowout preventers (also known as BOPs), the devices that are supposed to seal the well in an emergency and prevent a drilling problem from escalating into a catastrophe.

The proposal was drafted by the Interior Department's Bureau of Safety and Environmental Enforcement (BSEE, pronounced "Bessie"), which said in an official public notice that its goal was "reducing unnecessary regulatory burdens."

BSEE said its plan includes adopting standards written by the oil and gas industry and aligning its regulations with those standards. That's also what the industry has been seeking.

For example, in a May 2017 letter to the Interior Department and a September 2017 presentation to BSEE, the American Petroleum Institute (API) and other industry groups asked the government to defer to an industry standard known as API Standard 53, "Blowout Prevention Equipment Systems for Drilling Wells."

"The requirements that exceed the provisions of API Standard 53 (API 53) . . . are unnecessary, will not improve safety and will increase risks to operations, which is why, we recommend using the requirements in API 53 as the primary best practice," the industry groups said in the letter.

"Eliminate any requirements that exceed API 53," they said in their presentation.

The Obama Administration drew upon API standards even as it ratcheted up requirements for BOPs. Some of the Obama provisions could end up being changed before they've kicked in.

API has described the Trump Administration's proposal as a needed improvement over the Obama rules.

"BSEE's proposed revision of the well-control rule will move us forward on safety, help the government better regulate risks and better protect workers and the environment," Erik Milito, an API official who handles regulatory and legislative matters, said in a statement the organization sent POGO in August 2018.

Federal agencies are generally required to use technical standards developed outside the government. However, in evaluating whether to use industry standards, federal guidance says, agencies should consider "the level of protection the standard provides or is expected to provide for public health, welfare, safety, and the environment."

API 53 includes this general requirement: Blowout preventers "shall provide a means to . . . shear the drill pipe or tubing and seal the wellbore."

In other words, the industry standard says blowout preventers should be able to prevent blowouts.

It's hard to argue with that general proposition, which borders on a statement of the obvious. But the Administration's plan would roll back specific requirements meant to ensure that, when needed, blowout preventers would actually do the job.

That's not all. The Administration's plan would weaken rules meant to avert the kind of crises that call for blowout preventers, and it would weaken rules meant to deal with worst-case scenarios in which blowout preventers fail.

BSEE says its proposal "would not increase the safety or environmental risks" of offshore drilling. If the Bureau is wrong about that, the costs could be profound—even in strictly economic terms.

BP, the giant oil company that shared responsibility for the Deepwater Horizon spill, reported that, as of the end of last year, its liabilities and other costs from the deadly disaster had reached $65.8 billion.

Blowout Preventer Information

Current Rules:

When applying for a permit to drill, offshore operators must submit a complete description of the BOP system and its components, including, for each "ram BOP" and at the maximum anticipated pressure, "settings needed to achieve an effective seal."

(BOPs include components known as "rams," which are meant to block the flow of oil and gas and contain or "seal" wells. So-called "shear rams" are meant to cut well pipes, too. The equipment should be able to withstand the pressure exerted by oil and gas escaping up the well from highly pressurized natural reservoirs beneath the ocean floor.)

Proposed Change:

BSEE would change "settings needed to *achieve an effective seal* of each ram BOP" to "settings needed to *close* each ram BOP." (Emphasis added)

BSEE's Explanation:

The Bureau said the revision would more closely match the API 53 standard promulgated by the oil industry and "would be adequate to meet" that standard, achieving the same result.

Why It Matters:

Closing one of a BOP's components is not necessarily the same as achieving an effective seal. (If it was, why bother to change the wording?)

If part of the BOP closes but doesn't stop the flow of oil or gas, or if it stops the flow only temporarily, a runaway oil spill could result.

When a rig owned by Hercules Offshore Inc. was destroyed in a 2013 blowout, the crew attempted to seal the well. According to a BSEE analysis of the blowout, the flow from the well subsided but then quickly resumed. A review of rig sensor data indicated that "the closed blowout preventers had begun leaking after initial indications that they had been successfully closed," a separate investigation found.

Investigators could not determine conclusively whether the BOP temporarily closed. However, they concluded that, even if it had, a combination of "high pressure in the well" and a loss of the hydraulic power used to control the BOP ultimately "would have allowed the blind shear rams to begin to leak continuously."

Further, API Standard 53, one of the industry standards incorporated in BSEE's regulatory proposal, gives an oblique definition of when a BOP can be considered closed:

"A BOP can be considered closed when the regulated operating pressure has initially recovered to its nominal setting or other demonstrated means."

Real-Time Monitoring

Current Rules:

Current rules require that, beginning in April 2019, offshore operators will have to be able to monitor from shore real-time data on well operations, including information about the blowout preventer and conditions in the well.

Proposed Change:

The proposal would delete this paragraph:

> You must transmit these data as they are gathered, barring unforeseeable or unpreventable interruptions in transmission, and have the capability to monitor the data onshore, using qualified personnel in accordance with a real-time monitoring plan, as provided in paragraph (c) of this section. Onshore personnel who monitor real-time data must have the capability to contact rig personnel during operations. After operations, you must preserve and store these data onshore for recordkeeping purposes as required in §§ 250.740 and 250.741. You must provide BSEE with access to your designated real-time monitoring data onshore upon request. You must include in your APD [application for permit to drill] a certification that you have a real-time monitoring plan that meets the criteria in paragraph (c) of this section.

BSEE's Explanation:

BSEE says it would still require the ability to gather and monitor real-time well data but would remove "many of the prescriptive real-time monitoring requirements" to "allow company-specific approaches."

Why It Matters:

In the 2010 Deepwater Horizon disaster and the 2013 blowout that destroyed the Hercules rig, people working on the rigs didn't realize a crisis was building until it was too late. In each case, once the well blew, chaotic and life-threatening conditions on the rig made it difficult for the crew to manage the situation. Onshore monitoring could provide a backstop. Also, after any disaster, it could help investigators figure out what went wrong and why—and who was responsible. It could be the equivalent of having the flight data recorder or cockpit voice recorder from an airplane—the so-called black box—backed up on the ground in real time in case of a crash.

Failure Analyses

Current Rules:

When BOPs fail, offshore operators must ensure that an investigation and failure analysis are performed within 120 days of the failure to determine what caused it. Then, they must ensure that the results and any corrective action are documented.

The information is used in an annual report on BOP failures published by the government and mandated in the aftermath of the Deepwater Horizon disaster.

Proposed Change:

The investigation and failure analysis would have to begin within 120 days. Companies would then have another 120 days to complete it—if they are required to complete it at all. BSEE indicated that it is considering "whether specifying a completion date for the failure analysis is appropriate."

BSEE's Explanation:

The Bureau said it found "that certain operations would not be able to meet the original timeframes." It cited "unknown situations that could arise," including situations involving "the availability of the equipment."

Why It Matters:

"Understanding the root cause of equipment component failures is key to preventing reoccurrence and addressing any existing issues with equipment design, maintenance practices, and/or established procedures," the government said in the most recent annual report on BOP failures.

Compliance with the requirement is already a problem. According to the annual report, failure analyses are not always performed as expected. More specifically, for BOP failures in 2017 that resulted in an unplanned extraction of the BOP, only 12 of the 18 components that failed—two-thirds—were sent to shore for further analysis by the manufacturer or a third party. The government expected a root cause failure analysis in every instance, the report said.

Disaster Preparedness and Oil-Spill Response Contingency Plans

Current Rules

In case the blowout preventer fails, drilling companies must have on hand all equipment needed to regain control of the well, including an array of specified equipment to contain the spill at its source. The listed equipment includes so-called "containment domes" and "capping stacks" to put a lid on the well, and vessels to capture the leaking oil.

Proposed Change:

The list of items drillers must have available to contain and control a spill would cease to be binding. The listed items would serve as "examples" of the types of equipment that may be appropriate "rather than universal requirements."

BSEE's Explanation:

Instead of taking a one-size-fits-all approach, companies could make "well-specific determinations" as to what equipment they should have ready.

Why It Matters:

When the Deepwater Horizon exploded, BP should have been prepared to deal with a blowout in the Gulf of Mexico. As the runaway spill and subsequent investigations revealed, it was not. Though BP had a contingency plan, that plan mentioned walruses among the native wildlife in need of attention, indicating that at least part of the plan was borrowed from one meant for far-away Alaskan waters. Federal regulators had approved BP's contingency plan, walruses and all. "There is little in that approval to suggest that BP and MMS [the Minerals Management Service, predecessor to BSEE] gave close scrutiny to the contents of the Oil Spill Response Plan," a presidential commission said in its report on the spill. It took 87 days to cap BP's well. By then, more than 130 million gallons of oil are estimated to have gushed into the Gulf.

Certification

Current Rules:

When applying for a permit to drill, an offshore operator must submit a certification confirming information about the BOP and its capabilities. The certification must come from a "BSEE-approved verification organization"—essentially, a private auditor or inspector such as an engineering firm that meets a set of qualifications.

Proposed Change:

The certification would no longer have to confirm that the BOP "is designed and suitable for the specific equipment on the rig and for the specific well design" or that the BOP "will operate in the conditions in which it will be used."

BSEE's Explanation:

The wording proposed for deletion is redundant in light of other requirements.

Why It Matters:

BOPs can be useless if they don't match the equipment used on a particular rig. For example, the blowout preventer on the Deepwater Horizon was no match for a type of drillpipe frequently used on the rig, according to an investigation by the U.S. Chemical Safety Board. According to the Board, a company manual for the Deepwater Horizon's blowout preventer said the blind shear rams had to be capable of shearing the highest grade and heaviest drillpipe used on the rig. Despite that requirement, the Deepwater Horizon BOP "was not capable of reliably shearing" the 6⅝-inch drillpipe generally used in the well, the Board reported. According to the Board, emails show that at least one Deepwater Horizon supervisor knew about the problem.

Verification

Current Rules:

When applying for a permit to drill, an offshore operator must submit a certification confirming information about the BOP and its capabilities. The certification must come from a "BSEE-approved verification organization"—essentially, a private auditor or inspector such as an engineering firm that meets a set of qualifications.

Proposed Change:

The organization performing the verifications would no longer have to be approved by the regulator.

BSEE's Explanation:

The industry has long used "independent third parties" to vouch for offshore equipment, and, based on past experience, there is no need for the bureau to review and approve them.

Why It Matters:

Rig workers have pleaded guilty to criminal charges of falsifying BOP test results, illustrating why it could be useful to have someone check key information about the equipment.

BSEE-approved inspectors might be more reliable than inspectors not vetted by the Bureau.

In April 2016, before the requirement for BSEE-approved inspectors was adopted, the Interior Department's Office of Inspector General reported concerns "regarding the technical competency" of management at a firm conducting BOP verifications.

The report compiled observations from people whose names are redacted. One opined that "the verification process has reverted to a business being run by accountants versus technical experts."

A recurring theme in the inspector general's report was the firm's willingness to please its customers, companies that conduct offshore oil and gas operations, as POGO describes in an accompanying story.

For example, one person "had heard of situations where a non-technical manager in [the firm] would sign a document that a technical engineer refused to sign because a 'customer needed it,' and [the firm] was in the business of 'taking care of the customer,'" the report said. “He believes that this type of customer ‘accommodation’ is not living up to the intent/spirit of the law, which as he articulated before, was to ensure another Deepwater Horizon explosion does not happen again,” the report said.

Requiring that third parties preserve their BSEE-approved status would give them cover to stand up to clients’ demands, said Roger L. McCarthy, a member of the National Academy of Engineering who has investigated disasters such as the Deepwater Horizon blowout. “Once you remove that . . . then it’s just, What does he do to please the client?” McCarthy said.

Reports

Current Rules:

Every 12 months, offshore operators must submit a “Mechanical Integrity Assessment Report” on their blowout preventer. The report must be completed by a BSEE-approved verification organization and must cover a list of points.

For example, it must verify that all maintenance, repairs, and replacement parts meet regulatory requirements and manufacturer specifications; identify any gaps in the maintenance and inspection record; and confirm that any modifications to the equipment wouldn’t impair it.

Proposed Change:

Those yearly reports would no longer be required.

BSEE’s Explanation:

In light of other requirements, the reports would be redundant.

Why It Matters:

A thorough mechanical integrity assessment might have detected profound problems with the BOP on the Deepwater Horizon.

The rig was owned by Transocean and was being used on a BP well when it exploded and sank in the Gulf of Mexico in 2010. After the blowout, it took a Transocean representative almost 10 days to realize that the BOP’s plumbing differed from the diagrams on which BP and Transocean had been relying as they tried in vain to trigger one of the BOP’s rams through a hydraulic panel, the national commission appointed to review the disaster later reported.

“Without properly recording the change, Transocean had reconfigured the BOP; the panel that was supposed to control that ram actually operated a different, ‘test’ ram, which could not stop the flow of oil and gas,” the commission reported.

What's more, a critical valve in the BOP had been miswired, potentially rendering the valve inoperable, the U.S. Chemical Safety Board reported.

Test Duration

Current Rules:

BOPs must be subjected to a variety of pressure tests at different intervals to make sure they could contain a blowout. For some tests, if BSEE representatives are unable to witness the tests, the results must be submitted to the regulator.

Proposed Change:

One test currently requires the BOP to seal for 30 minutes at the maximum internal pressure that it is designed to contain. BSEE would shorten the test from 30 minutes to 5 minutes.

BSEE's Explanation:

"BSEE believes the historical data indicates that five minutes is adequate to demonstrate effective sealing."

Why It Matters:

In a blowout, a BOP could have to contain a well for longer than five minutes. (To be sure, it could also have to contain a well for longer than 30 minutes.)

The inspector general report from 2016 cited above said that a firm conducting BOP verifications allegedly faced pressure from customers to shorten pressure tests from 10 minutes—apparently a practice at the time for the tests at issue in that report—to 5 minutes. One of the people interviewed in the inspector general's investigation reportedly said that he told the verification firm that it "would need to fire him before he signed a BOP verification that only conducted a five minute pressure test."

That person reportedly told his employer "that, based on his extensive experience and expertise in testing BOPs, he believed it to be absolutely necessary to conduct a ten minute pressure test in order to ensure the BOP did not have any small leaks."

(The inspector general report was written shortly before the Obama Administration finalized the 2016 blowout preventer regulations.)

In the 2013 incident that destroyed a rig owned by Hercules Offshore Inc., there was a lull of 14 minutes after BOP components were activated, an investigation found. Then the blowout continued unchecked.

Five minutes is “not long enough to test something,” said Don McClelland, chief technical officer of the firm Offshore Inspection Group. Based on a test of only five minutes, “you don’t know if it’s going to hold,” he said.

Test Pressure

Current Rules:

BOPs must be subjected to a variety of pressure tests at different intervals to make sure they could contain a blowout. For some tests, if BSEE representatives are unable to witness the tests, the results must be submitted to the regulator.

Proposed Change:

BSEE would also reduce the amount of pressure that the equipment must withstand in certain pressure tests.

The pressure involved in a test of the so-called “deadman system,” which is supposed to automatically seal the well when crucial systems fail, would be reduced to 1,000 pounds per square inch (psi). “This revision would require confirmation of closure through a 1,000 psi pressure test held for 5 minutes,” the BSEE proposal says. The pressure involved in another test, to be performed under water using a remotely operated vehicle (ROV), would also be reduced to 1,000 psi. Currently, the pressure levels required for those tests, based on variables, could be much higher—for example, the maximum pressure the BOP is expected to encounter plus an extra 500 psi for good measure, or the maximum pressure the BOP is designed to contain.

BSEE’s Explanation:

BSEE says conducting these tests at higher pressures is not necessary and that the equipment will undergo other tests. It also says the changes would shorten the tests, save time, and cause less wear to the BOP. The purpose of the test involving the remotely operated vehicle is to “verify operability” of the vehicle, BSEE says.

Why It Matters:

BOPs could face much higher pressures than 1,000 psi.

For instance, in January 2017, when the casing burst in a well operated by Fieldwood SD Offshore LLC, the estimated internal pressure on the casing was more than 2,000 psi, a BSEE investigation later found. A contributing cause of the accident, BSEE concluded, was that the BOP was “only tested to 1000 psi.”

During the 2013 blowout that set fire to a rig owned by Hercules Offshore Inc., the pressure in the BOP rose to more than 4,000 psi, a BSEE report said.

And, according to the national commission that investigated the Deepwater Horizon disaster, months after the explosion, and after the gusher was finally capped, pressure in that well was logged at 6,920 psi.

Regulatory Oversight of Tests

Current Rules:

BOPs must be subjected to a variety of pressure tests at different intervals to make sure they could contain a blowout. For some tests, if BSEE representatives are unable to witness the tests, the results must be submitted to the regulator.

Proposed Change:

Test results would no longer have to be submitted to BSEE when BSEE is unable to witness the testing.

BSEE's Explanation

Eliminating that requirement would "minimize the associated burden for BSEE to review those submittals."

But, if BSEE asked to review the results, it would still have access to them.

Why It Matters

Another backstop and potential source of accountability would be removed.

Frequency of Tests

Current Rules:

BOPs must be pressure tested at intervals of 14 or 30 days, depending on the component.

Proposed Change:

BSEE has signaled that it is reconsidering the testing schedule. It has requested public comment on whether the frequency should be increased or decreased.

BSEE's Explanation:

"In recent years, the industry has raised concerns related to the benefits of pressure and functional testing of subsea BOPs when compared to the costs and potential operational issues."

BSEE has generally expressed concern that testing could cause wear and tear on BOPs.

Why It Matters:

Testing less frequently could reduce wear and tear, and it could save companies time and money. It could also increase the odds that the equipment wouldn't work when needed.

Emergency Systems

Current Rules:

Rigs using underwater BOPs must be equipped with systems that can shut the well in an emergency if the usual controls are somehow cut off, including systems that would work automatically.

The emergency systems are known as "autoshear," "deadman," and "Emergency Disconnect Sequence (EDS)."

Proposed Change:

The following requirement would be deleted: "The control system for the emergency functions must be a fail-safe design once activated."

BSEE's Explanation:

The explanation BSEE gave for this proposal in a public notice seems like a non-sequitur. BSEE said the proposal is "based upon a better understanding of the third party verifications and documentation of the shearing requirements."

Why It Matters:

In a fire or explosion on an oil rig, the crew members responsible for operating the BOP and the systems ordinarily used to control it could be disabled. People could be injured or killed, and the rig's control lines could be disconnected from the BOP sitting on the ocean floor—as in the case of the Deepwater Horizon. In those scenarios, a reliable back-up could be crucial.

Hydraulics

Current Rules:

BOPs depend on hydraulic pressure to close a well. Under current rules, for "subsea" BOPs—those that rest on the ocean floor—a supply of hydraulic fluid must be stored in subsea containers known as "accumulators." The subsea containers must hold enough hydraulic fluid to power the BOP even if the flow of hydraulic fluid from the rig is lost.

The current rules explain the objective this way: "to provide fast closure of the BOP components and to operate all critical functions in case of a loss of the power fluid connection to the surface."

Proposed Change:

BSEE would delete the phrase, “in case of a loss of the power fluid connection to the surface.”

Also, as stated in the notice of proposed rulemaking, “BSEE would remove the reference to the subsea location of the accumulator capacity.”

BSEE’s Explanation:

“BSEE understands that the accumulator system works together with the surface and subsea accumulator capacity to achieve full functionality,” BSEE said in a public notice. The revision “helps reduce the non-critical accumulator capacity on the BOP stack subsea,” BSEE added.

BSEE said adding underwater hydraulic containers adds weight to the BOP, potentially affecting its stability.

BSEE also said changing the accumulator requirements would be a major cost savings for industry.

The entire BOP system would still be covered by an industry standard, “API Standard 53,” BSEE said.

Why It Matters:

In the Deepwater Horizon disaster, as a result of leaks in the hydraulic system, the accumulators may not have been able to supply the power needed to close the well, a study by the Berkeley-based Center for Catastrophic Risk Management said.

“Six redundant means of activating the BOP high pressure BSR [blind shear ram] failed,” the study said. “There were similar redundant systems and processes to assure that the BOP was properly maintained and functional. All of these systems and processes failed.”

The U.S. Chemical Safety Board put it this way: “A fire and explosion like the one on the DWH [Deepwater Horizon] could damage power and communication cables and the conduit line carrying hydraulic fluid from the rig . . . .” The Deepwater Horizon BOP had two sets of shear rams to close the well, but the deadman system “was capable of closing only one of them due to accumulator limitations,” the board added.

The provision that BSEE would alter stated why it was necessary to place hydraulic capacity under water: “to provide fast closure of the BOP components and to operate all critical functions in case of a loss of the power fluid connection to the surface.”

Cutting Bent Well Pipes

Current Rules:

The current rules include several provisions that essentially promote the BOP's ability to cut through a well pipe that has bent, buckled, or been knocked out of the center of the well.

For example, one provision says subsea BOPs must be able to "mitigate" compression of the pipe.

Another provision says that, by the spring of 2023, underwater BOPs must be equipped with mechanisms that can position an off-kilter pipe where the BOP's blades can shear it.

A third provision requires verification that, in mandatory testing, the outermost edges of shearing blades were able to cut the pipe—not just that the blades could cut a pipe if it was positioned in their sweet spot.

Proposed Change:

BSEE would delete those three provisions.

BSEE's Explanation:

BSEE cited technological advances in available shearing equipment and said it believes oil and gas companies "will continue to substitute new components for old ones" to comply with ongoing requirements.

"BSEE believes that, since newer shearing blades can center pipe, it is unnecessary to require a pipe centering mechanism," the notice of proposed rulemaking says.

Why It Matters:

What if oil and gas companies haven't adopted the newer technologies?

By way of background, a federal investigation found that the Deepwater Horizon's blowout preventer failed to seal the well the night of the blowout because the drill pipe had buckled.

"[B]ecause the drill pipe was buckled and off-center inside the blowout preventer," the U.S. Chemical Safety Board reported, the pipe was "only partially cut."

That failure "directly led to the massive oil spill and contributed to the severity of the incident on the drilling rig," the Board reported in 2014. The Board said the same conditions that buckled the drill pipe during the Deepwater Horizon accident could occur at other drilling rigs.

Shear Rams

Current Rules:

BOPs used underwater must have several different mechanisms for sealing wells. Those include two “shear rams”—which, as a last resort, are supposed to cut through the well pipe and block the flow of oil or gas.

Under the current rules, both shear rams must be capable of shearing the pipe and other structures such as electric lines.

Proposed Change:

Instead of requiring that each of the two shear rams be independently capable of cutting the pipe and other structures, BSEE would require that the combination of the two shear rams be able to do the job.

BSEE’s Explanation:

The change “would better align” the requirement with a standard promulgated by the American Petroleum Institute.

BSEE says that some shears have difficulty cutting some of these elements, while other shears have difficulty cutting other elements.

“BSEE is aware that certain casing shears still have difficulty shearing electric-, wire-, or slick-line, while certain blind shear rams have difficulties shearing larger casing sizes.”

Why It Matters:

The proposed change would eliminate the extra layer of safety.

As noted above, in the Deepwater Horizon disaster, multiple systems failed, a study by the Center for Catastrophic Risk Management said.

“Six redundant means of activating the BOP high pressure BSR [blind shear ram] failed,” the study said. “There were similar redundant systems and processes to assure that the BOP was properly maintained and functional. All of these systems and processes failed.”

“We need two independent blind shear rams to work as two independent systems,” said Najmedin Meshkati, a University of Southern California engineering professor who worked on a National Academy of Engineering study of the Deepwater Horizon disaster and the rig’s blowout preventer. Otherwise, the two shear rams could be vulnerable to the same mode of failure, he said. “We need to have redundancy” so that “if one of them fails, the other could work,” Meshkati said.

Alternative Devices

Current Rules:

For BOPs installed at the surface, if the blind shear rams are unable to cut various wires and cables in the well, the BOP must have an alternative device for cutting those.

Proposed Change:

BSEE would no longer require the alternative device.

BSEE's Explanation:

"The alternative cutting device is no longer necessary because the currently commercially available shear rams have increased design capabilities, which are capable of shearing these types of lines."

Why It Matters:

The fact that shear rams with increased capabilities are "commercially available" does nothing to prevent a blowout unless oil and gas companies use the newer models.

Safety Margin

Current Rules:

When drilling, energy companies must maintain a balance of forces within the well. To prevent oil and gas from rising uncontrollably, they pour a column of heavy fluid into the well. The fluid sits atop the oil and gas and holds it in check. If fluid the drillers use is not heavy enough, the oil and gas can escape in a blowout. If the fluid used is too heavy, the resulting pressure could crack the rock formation that holds the oil and gas, making it difficult to control the well. Under current rules (which allow for some exceptions), drillers must keep the pressure within a specifically quantified range, expressed through something known as the "drilling margin" or "safe drilling margin."

Proposed Change:

BSEE is considering changing the specified drilling margin—or rewriting the rules to refrain from prescribing any margin. The Bureau asked for comment on those and other possibilities.

BSEE's Explanation:

Prescribing a standard margin may not take into account the characteristics of each well, BSEE said. It may be better to use a case-by-case approach, BSEE said.

Why It Matters:

Malcolm Sharples, president of Offshore Risk & Technology Consulting, argued that there should be some prescribed drilling margin.

"If you take all the limits away, you have people perhaps doing foolish things they should not be doing," Sharples said.

“Eliminating this provision in my opinion, is the most egregious of any change suggested,” David M. Pritchard, a petroleum engineer who specializes in drilling hazards management, said by email.

For drilling companies, adhering to the safety margin can consume time and money. Under the current rules, if they can’t stay within the prescribed margin, they must suspend work.

Options BSEE is considering could give drillers greater latitude—potentially including the freedom to drill more dangerously.