



Offshore Drilling Reform

REPORT CARD₂₀₁₂



“F” - Failure to Improve Offshore Drilling Regulation and Safety

Summary

On April 20, 2010 the world watched as BP lost control of a well it was drilling using the Deepwater Horizon oil rig in the Gulf of Mexico. For the next 87 days, 200 million gallons of oil poured into the ocean, devastating the region's environment and economy, including fisheries and tourism. The spill also claimed the lives of 11 individuals and injured many more, and hundreds of sea birds, turtles, dolphins and other sea life were also killed. Two years later, the impacts of the oil to deep sea corals and other less visible animals and plants are still being uncovered. According to recent figures, BP has spent more than \$32 billion in cleanup-related costs, and billions have been paid to Gulf Coast residents that were affected by the spill, either from loss of work or direct damages. Billions more will be required to settle up on penalties and natural resource damages, though those are still the subject of litigation.

In the aftermath of the worst accidental oil spill in world history, several high-level commissions and panels reported on the causes of the spill and made important recommendations to prevent such events from re-occurring. In particular, the Presidentially-appointed National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (hereafter referred to as the National Commission) made a series of recommendations on how regulation and safety issues should be addressed. Similarly, the National Academy of Engineering and the National Research Council (hereafter collectively referred to as NAE) also analyzed the causes and recommended actions to prevent future spills.

Unfortunately, our review demonstrates that little to no progress has been made to improve the regulation and safety conditions of offshore drilling in the U.S. Even where actions were taken, Oceana finds the efforts to be woefully inadequate.

In this report, Oceana has graded the effectiveness of the U.S. government and industry in improving the regulation and safety of offshore drilling since the Deepwater Horizon oil disaster two years ago. Building on our previous report, entitled *False Sense of Safety*, Oceana has analyzed the progress made towards reaching the key recommendations of the National Commission and NAE. Many of the recommendations of the two groups overlapped. What we report includes an assessment of the nine categories of recommendations put forth by the National Commission. For each, we discuss progress on the major recommendations that would be most likely to improve the drilling process if followed, and this provides the basis of the categorical grade. The recommendations we do not address were, in Oceana's view, not likely to confer a significant benefit to drilling safety or spill response, even if they were fully implemented.

As shown in the table below, out of nine broad categories of recommendations put forth by the National Commission, government and industry received six failing grades from Oceana, which indicates either no action was taken or that the action taken has produced no tangible progress. In the other three categories, they received D's, which indicates an effort was made but that it was not satisfactory. In no area did government or industry perform satisfactorily.

This analysis demonstrates that offshore drilling remains as risky and dangerous as it was two years ago, and that the risk of a major spill has not been effectively reduced. Following these recommendations from the National Commission and NAE in full may not be sufficient; however, the government and industry have not even come close to doing that. Until adequate reforms are implemented and safety measures are put into place, spills remain a continued threat and therefore new offshore drilling should not be permitted.

Category of Recommendations (from the National Commission)	Grade
Improving the safety of offshore operations: government's role	D
Improving the safety of offshore operations: industry's role	F
Safeguarding the environment	D
Strengthening oil spill response, planning and capacity	F
Advancing well-containment capabilities	F
Overcoming the impacts of the Deepwater Horizon spill and restoring the Gulf	D
Ensuring financial responsibility	F
Promoting Congressional engagement to ensure responsible offshore drilling	F
Moving to frontier regions	F

IMPROVING THE SAFETY OF OFFSHORE OPERATIONS: GOVERNMENT'S ROLE – “F”

Implementing Effective New Prescriptive Regulations

In January 2011, the National Commission recommended that the U.S. Department of the Interior (DOI) implement new regulations outlining proper safety requirements for offshore drilling. These recommendations have also been called for by NAE and the Joint Investigation Team, which was comprised of the former offshore drilling regulator, the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE), and the U.S. Coast Guard.

While DOI has implemented new prescriptive regulations under the Interim Final Drilling Safety Rule, they have failed to make offshore drilling much safer. For example, some of the new regulations are poorly written, including the allowed use of inappropriate equipment. They have also failed to address several widely-acknowledged regulatory needs, including mandating redundancy in a key part of the blowout preventer to increase its ability to seal a wellbore and so prevent a blowout and spill. They have also failed to modify testing requirements to better reflect real-world conditions.

Furthermore, the new regulations – including Safety and Environmental Management Systems (SEMS) discussed below – have not addressed a number of important technical and regulatory problems, such as the fundamental deficiencies in blowout preventers, the insufficient number of inspectors available and the low fines for civil penalties. These concerns and others continue to undermine all efforts to increase offshore drilling safety.



Bolstering Inspection and Oversight

Every report to date that has focused on the Deepwater Horizon oil disaster has concluded that the inspection and oversight capabilities of the former offshore drilling regulator – the Minerals Management Service (MMS) – were woefully inadequate. Among the most consistent findings were concerns about the paucity of inspectors, insufficient training and poor inspection practices.

In light of these complaints, DOI created BOEMRE, and then split the agency to form what is now the Bureau of Safety and Environmental Enforcement (BSEE). This Bureau has managed to hire more inspectors, create a National Offshore Training and Learning Center and revise inspection practices. However, despite these efforts, the inspection of offshore drilling facilities is still grossly inadequate. In fact, only one-quarter of the inspectors needed for the Gulf of Mexico have been hired. Moreover, only two groups of inspectors have been trained at the new Center and 13 percent fewer inspections were conducted in the Gulf in 2011 as compared to 2010. While the Agency seems to be making an effort in this area, the results are far from satisfactory.

Developing a Proactive, Risk-based Performance Approach to Regulation

The National Commission and NAE recommended that DOI develop a proactive, risk-based performance approach similar to that used in the United Kingdom. The recommendation also included that this approach be combined with new prescriptive regulations to prevent oil spills in the future.

As a result, DOI implemented SEMS, or Safety and Environmental Management Systems, with the intent of enhancing the safety of offshore drilling by reducing the frequency and severity of accidents. Unfortunately, in past years when SEMS has been voluntarily implemented, it failed to decrease the number of oil spills -- even with 98 percent of the operators voluntarily implementing it.

It also doesn't satisfy the call for an integrated whole-system approach for preventing oil spills because of jurisdictional issues between the Coast Guard and BSEE. Thus, the government has not implemented an effective regulatory system with a whole-system, risk-based performance approach.

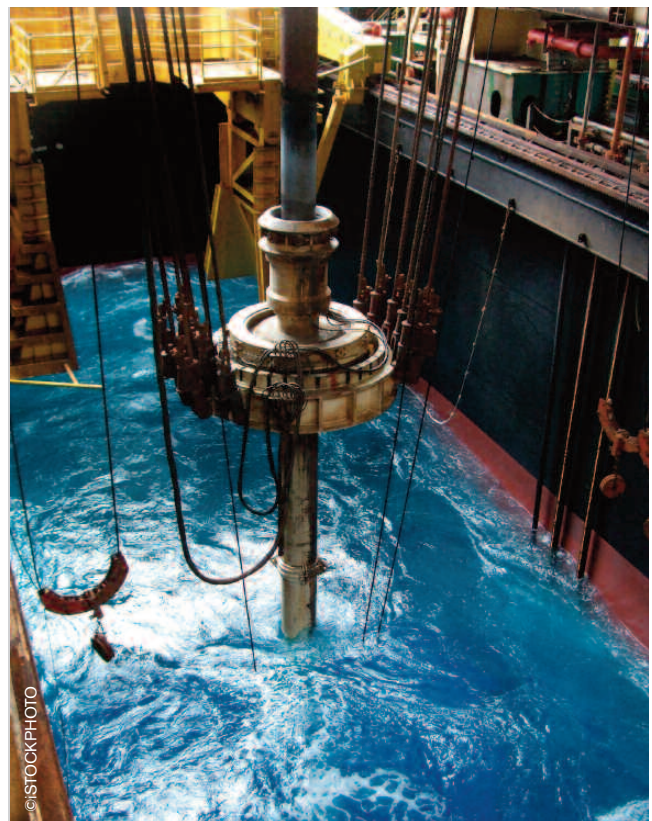
Enhancing Whistleblower Protection

The National Commission urged Congress to protect whistleblowers on offshore drilling operations because they are critical to preventing destructive actions, including drilling when safety concerns exist. NAE echoed the need for greater whistleblower protection. Whistleblowers are workers that speak up, or alert the authorities, when unsafe or illegal actions are occurring. Since many workers may fail to speak up due to fear of reprisal, protections are needed to prevent mistreatment of those workers. To date, Congress has failed to pass any legislation to improve protections for whistleblowers in offshore oil and gas production, which limits the degree to which dangerous or illegal activities will be reported.

Creating a New, Effective, Independent Safety Agency

Oceana applauded the creation of BSEE in late-2011 as the independent agency in charge of offshore drilling safety. However, some of the key issues that undermined the former agency, MMS, remain problematic. For example, against the recommendation of the National Commission, BSEE (and its sister agency, the Bureau of Ocean Energy Management, or BOEM) still heavily relies on the annual Congressional appropriations process for funding.

As a result, its funding can ebb and flow with the political tides, and in recent years has been less than what the Bureau requested and needed for effective regulation. Against the recommendation of the National Commission, regulatory responsibility for the various components of offshore drilling have also not been consolidated under BSEE, resulting in the industry being regulated by a patchwork of various agencies each in charge of different pieces of the same puzzle.



IMPROVING THE SAFETY OF OFFSHORE OPERATIONS: INDUSTRY'S ROLE – “F”

Establishing a New, Independent, Industry-run Safety Organization

As recommended by the National Commission, the offshore drilling industry created the Center for Offshore Safety, a move it claimed demonstrated its commitment to safety. However, the National Commission forewarned that in order for such an institute to be credible, it could not be housed within the American Petroleum Institute (API), the largest lobbying organization for the offshore drilling industry and a historical adversary to tighter regulations. Unfortunately, the industry ignored this advice, and did just that, locating the center within API. Doing so prevents the Center from being independent, rendering it vulnerable to becoming just another piece of the oil and gas industry's public relations effort.

Developing New, Improved Spill Cleanup and Response Resources

One of the most egregious shortcomings of the offshore drilling industry that came to light during the Deepwater Horizon oil disaster was its utter lack of spill cleanup and response resources. The technology that does exist is decades old and clearly insufficient. Americans watched as booms failed to save beaches and marshes from oiling, and skimming and burning proved unable to cleanup more than a tiny fraction of the spilled oil. Yet none of these technologies have been improved since the spill, despite the industry's reliance on them for oil spill cleanup. If an oil spill were to occur today, the industry's response and cleanup would be no better than it was two years ago.

“Fundamentally Transforming” its Safety Culture

The National Commission did not hold back when discussing the role of the industry in improving offshore drilling safety, stating that the industry had to “accomplish no less than a fundamental transformation of its safety culture” to reduce risks to the fullest extent possible. As demonstrated throughout this report card and in our previous report, *False Sense of Safety*, such a fundamental

transformation has not yet occurred. Steps taken to date may appear to be meaningful but in most cases they are unproven. Further, the industry continues to push for more drilling and less oversight, which is the antithesis of a “fundamental change.”



Technologically, changes have been insufficient. For example, although interim containment caps have been developed, expanded systems have not been finished. Even if they had, they wouldn't be able to contain all of the oil from some wells being drilled in the Gulf when used as cap-and-flow systems, as more oil would be released from these wells than could be handled by the systems. Moreover, oil spill cleanup equipment like skimmers has not changed since the Deepwater Horizon oil disaster and it remains completely inadequate. Permits submitted to the government still contain vast exaggerations in spill cleanup and response capabilities in order to secure approval for drilling. Yet business for the oil and gas industry has returned to full-steam-ahead, pushing into frontier areas and crying foul about government oversight. Such actions evince a continued prioritization of profits over safety and precaution, and illustrate the industry's failure to fundamentally transform its safety culture.

SAFEGUARDING THE ENVIRONMENT – “D”

Revising and Strengthening Environmental Review of Offshore Drilling

BP's listing of the walrus as a local species in the Gulf in its government-approved spill response plan and the government's failure to reject those plans symbolized the government's negligent reviews of the environmental impacts of offshore drilling before the spill. Since the BP disaster, the government has improved its environmental analyses. For instance, it no longer exempts some plans from environmental review (as it did in the past) and the quality of its reviews has improved. Based on Oceana's review, walrus are no longer listed as Gulf species in spill response plans.

Even so, the government still has a very long way to go in improving its environmental review practices. For example, it still underestimates the risk of spills from drilling, especially in frontier areas like deepwater and ultra-deepwater areas of the Gulf. It similarly underestimates the potential environmental impacts from large and catastrophic spills. These assumptions lead to a general underestimation of the impacts of drilling, and the government then uses those arbitrarily low estimates of risk to justify further leasing and permitting decisions in the Gulf.

The environmental review process also fails to be transparent, a flaw that the National Commission recommended fixing. This lack of transparency in spill risk analysis and oil spill response plans, for example, greatly inhibits the public's ability to review the government's environmental impact assessments. Without such oversight, there is little assurance that these assessments will be thorough and sufficient.



Improving Interagency Consultation

DOI conducts the environmental reviews for impacts of offshore drilling, but it is not the only agency knowledgeable in the area. In fact, another agency – the National Oceanic and Atmospheric Administration (NOAA) – has the most expertise in marine science and ocean ecosystems and is ideally suited to evaluate the potential impacts of offshore drilling on the oceans. Yet NOAA has no formal role in the environmental review process, meaning it participates essentially in the same capacity as any other individual or organization. Consequently, DOI is not required to implement NOAA's recommendations, such as how to mitigate environmental impacts or what areas should be excluded from leasing for the sake of conservation.

The National Commission proposed a remedy for this problem: provide NOAA a formal consultation role, such that DOI must listen to NOAA and include it throughout the environmental review process. But NOAA has not been given such a role and remains largely outside of the process, squandering its expertise that could bolster DOI's environmental reviews and mitigate the impacts of offshore drilling.

Overall, our analysis suggests that some effort has been made in an attempt to safeguard the environment, but so many outstanding issues remain that the government's grade in this category remains unsatisfactory.

STRENGTHENING OIL SPILL RESPONSE, PLANNING AND CAPACITY – “F”

Improving Oil Spill Response Planning to Ensure Better Capacity to Respond to Spills

While the government has taken some steps to increase spill preparedness on the part of the offshore drilling industry, it has failed to ensure that the industry is adequately prepared. Though the government requires more spill response information in applications than it did two years ago, it has largely failed to validate that information. Consequently, the government has approved applications with absurd claims as to how much oil could be recovered from the Gulf. For example, a recently approved exploration plan claims that BP could recover 220,000 barrels of oil per day via mechanical skimming, a figure that is unproven and unprecedented given that only 1,800 barrels per day were recovered in the Deepwater Horizon spill.

Spill cleanup and response technologies have also not improved since the Deepwater Horizon oil disaster, with the possible exception of containment caps, which while improved are still insufficient, as discussed in the next section. When the next spill happens, the operator will not be much better equipped to respond and clean it up than BP was in 2010.

Increasing Research and Development to Improve Spill Responses

Oil spill cleanup and response research and development (R&D) is still severely underfunded and it has been for decades. In addition, in spite of the National Commission’s recommendations, Congress has not provided funding for public R&D in this area, nor has it provided incentives or mandates for private industry to conduct such R&D. Without adequate funding, spill cleanup and response technologies will continue to languish and prove insufficient when needed, and they will continue to be outpaced by increases in production risk. This can lead to tragic consequences.



Making Approval Process of Oil Spill Response Plans More Transparent

Oil spill response plans are prepared by oil companies and submitted to the government. Since they detail how an operator would respond to a spill, these documents are crucial to understanding how well prepared operators are to handle a spill. Yet, despite the National Commission’s recommendation, these documents are still not publically available, and obtaining them can take as long as 11 months or more – much longer than the 30 days in which BOEM must approve or deny exploration permits. Without timely access to these spill response plans, the public has no way to review them and to ensure that operators have adequate spill response capabilities in the time frame in which BOEM is making its permitting decisions.

ADVANCING WELL-CONTAINMENT CAPABILITIES – “F”

Strengthening Industry’s Post-blowout Containment Capabilities

A recent investigation found that the government has no standards for assessing a company’s ability to contain a blowout. This makes it difficult to strengthen post-blowout containment capabilities. Even with recent improvements, well-containment systems still lag behind drilling technologies. As a result, companies are nowhere near capable of containing a major spill.

The available cap-and-flow containment systems, upon which oil and gas operators rely, have no guarantees. Even if they manage to place the system over the spill, which is not guaranteed, available technologies can only handle about 60,000 barrels of oil a day when deployed as cap-and-flow systems – far less than what could flow after a blowout. This means that if a blowout were to occur at a high capacity well (from which oil can flow at more than 200,000 barrels per day), more oil would be released every day into the environment even with available cap-and-flow systems installed on those wells than what was released during the BP spill (60,000 barrels per day).

Correcting and Accounting for Design Flaws in Blowout Preventers

Blowout preventers are used to seal a well in the case of a blowout, or a loss of well control. They provide the last line of defense against offshore drilling blowouts. The National Commission and NAE have both recommended that blowout preventers be redesigned in light of flaws uncovered by the BP oil spill. Unfortunately, this has yet to happen. While new testing and maintenance regulations for blowout preventers have been enacted, these neither address nor fix the underlying design flaws. Furthermore, simple requirements that would improve the odds that a blowout preventer functions correctly and seals the well – such as requiring redundancy in its shearing rams or testing blowout preventers under real-life conditions – have not been required. As a result of the government’s inaction in this area, blowout preventers being used throughout the Gulf of Mexico and elsewhere are at risk of failing just as the Deepwater Horizon’s did. Failure by the government and the industry to ensure the effectiveness of blowout prevention technology is problematic. But continuing to allow drilling, especially in deep water, in spite of this failure is absolutely unacceptable.

Improving Well Integrity Monitoring, Including Real-time Data Gathering

Currently, the government does not monitor offshore drilling activities in real-time in the Gulf or elsewhere. If a driller makes a decision that jeopardizes workers and the environment, or simply accidentally makes a mistake, the government has no way of knowing until after it is too late to prevent catastrophe. As NAE noted, real-time monitoring of well integrity is especially important, as it is a key warning sign before a blowout or spill. Thus, NAE recommended real-time monitoring of well integrity, but the government has failed to make that happen to date.



OVERCOMING THE IMPACTS OF THE DEEPWATER HORIZON SPILL AND RESTORING THE GULF – “D”

Improving our Understanding of Oil Spill Impacts, Particularly in Deep Water Environments

The BP spill was the first of its kind, as it released massive amounts of oil in deep water. The use of large volumes of chemical dispersants was also unique and contributed to the behavior of the oil at depth. As such, little was known at the time of the spill about how the oil, the dispersants, or the combination would impact the environment, either at the bottom or surface of the ocean. Today, our understanding is not much better. Numerous studies are ongoing and the scientific process to determine these impacts will take years. The government itself has acknowledged multiple times that the impacts of the BP spill are still largely unknown. But the studies that are finished have found alarming impacts on dolphins, deepwater corals, fish and even the organisms at the very foundation of the Gulf's vibrant ecosystem, the zooplankton. While some of this research is beginning to emerge, it is so far just a small sampling of the work needed to understand the impacts of the spill.

Better Balancing Economic and Environmental Interests

With all eyes on the Gulf, we saw what poor cleanup and response capabilities can mean for the people and ecosystems impacted by an oil spill. Since the spill, the government has restored drilling to previous levels, largely taking care of the oil industry's economic interests, but it is unclear that there has been an equal effort to balance this with environmental interests. While permitting and deepwater drilling activity in the region have returned to pre-spill levels, insufficient actions have been taken to ensure that this drilling is done safely and responsibly in the future. Notably, in required Environmental Impact Statements surrounding drilling permits and lease sales, Oceana analysis has found that the balance has not been adequately struck. The government's failure to balance economic and environmental interests when it comes to offshore drilling is unacceptable in light of the devastating impacts a spill can cause.



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ENSURING FINANCIAL RESPONSIBILITY – “F”

Ensuring Damages from Oil Spills are Fully Covered by the Spiller

Current laws do not ensure that all of the damages from oil spills incurred by individuals and businesses are covered by the spiller. While there is no cap for how much the company responsible for the spill must pay to remove oil from the environment, there is a cap on how much it must pay in damages. One example of such damages is the money lost by a fisherman that cannot fish because of an oil spill.

The cap for such damages can be as high as \$150 million, depending on the nature of the incident, and does not apply in some instances such as proven gross negligence. In the case of the BP spill, the cap was only \$75 million in damages. Compared to the billions in damages that BP has paid, \$75 million is absurdly insufficient to ensure that everyone damaged by a spill, financially or otherwise, is reimbursed. Unfortunately, raising, or better yet removing, this cap requires an act of Congress, which, despite the recommendation of the National Commission and others, Congress has not done.

While there is another source of funds for repaying damages known as the Oil Spill Liability Trust Fund, this fund is also limited and can only pay out \$1 billion per spill, which is not enough to ensure that every person and business damaged by a spill is repaid. Despite the National Commission's recommendation, Congress has also failed to increase the limitation on payments from the trust fund, leaving individuals and businesses along the Gulf coast and elsewhere potentially exposed to billions in unpaid damages.

In Oceana's view, the damages should be paid by the responsible companies, with no limit or cap. While the Commission did not go far enough in its recommendations, Congress failed to make either of these two very modest changes.



Increasing Financial Penalties for Violations by Offshore Operators

A large problem facing offshore drilling safety is that penalties for breaking the law are insufficient, or “patently inadequate” in the words of Michael Bromwich, the former BOEMRE director, to deter risk-taking by the industry. Currently, the penalty for violating regulations is only \$40,000 per day, per incident, and the vast majority of documented violations are not penalized. Considering that the daily operating costs of a drilling rig can range up to \$1 million, a perverse financial incentive for risk-taking and rule-breaking exists. The driller can risk a violation in part because they are unlikely to be caught and penalized, and partly because even if they are, the penalty is so low that it doesn't necessarily pay to follow the rules. Only Congress can significantly increase the penalty for breaking the law. Yet again, on this important recommendation, Congress has failed to act.

PROMOTING CONGRESSIONAL ENGAGEMENT TO ENSURE RESPONSIBLE OFFSHORE DRILLING – “F”

Adequately Funding Safety Oversight and Environmental Review

Providing adequate, stable funding is of the utmost importance to ensure sufficient government inspection, oversight and rulemaking. One of the primary shortcomings in offshore drilling regulations is a lack of sufficient funding for the regulatory agencies. The National Commission recommended that funding for these agencies be increased and made independent of the annual appropriations process.

To date, funding for the two regulatory agencies in charge of offshore drilling – BOEM and BSEE – is still inadequate and unstable. In fact, these agencies still receive roughly 40 percent of their funding from Congressional annual appropriations, which means that while industry fees have increased, the agencies are still reliant on Congress for funding. As a result, neither agency’s budget requests for recent years have been met, undercutting their efforts to improve offshore drilling regulation and safety. Congress’s underfunding of these agencies while decrying the slow pace of permitting and limited access to resources is a clear example of a preference for offshore drilling over safety and environmental protection.



Establishing Congressional Awareness and Engagement

Ultimately, Congress has failed to fundamentally change its approach to offshore drilling safety in the two years since the Deepwater Horizon oil disaster. The National Commission presented multiple recommendations for how Congress could become more engaged to improve the safety of offshore drilling. Yet Congress has failed to adopt any of these recommendations. It has not, for example, formed a specific committee or subcommittee to oversee safety and environmental issues related to offshore energy. Nor has it solicited an annual report from the offshore drilling regulator on government and industry actions to improve offshore energy safety. In fact, the U.S. Congress has not passed a single law to improve drilling safety in the two years since the worst accidental oil spill in world history devastated the Gulf Coast.

Despite the multitude of problems brought to light by the Deepwater Horizon oil disaster, many of which will require legislation to correct (as highlighted elsewhere in this report card), Congress has failed to take adequate action to address them. As a result, significant improvements in offshore drilling safety have not occurred, and unless Congress acts, the needed improvements will not be possible.

MOVING TO FRONTIER REGIONS – “F”

All of the failures mentioned above to reform the regulation and safety of offshore drilling are particularly important as drilling moves to frontier regions such as the Arctic and ultra-deepwater areas in the Gulf, where drilling is done thousands of feet below the surface of the water. These frontier regions pose special challenges to drilling, making an already-risky endeavor even more so.

In the Arctic, for example, meteorological factors, including high winds and seas, frequent fogs and storms and thick ice floes, make drilling extremely difficult and spills much more likely. If a spill were to occur in this region, spill response and cleanup would be drastically impeded by these factors as well as freezing temperatures and near-constant darkness throughout much of the year. The lack of infrastructure for spills in this region also means that any cleanup efforts would be handicapped from the start.

While the Gulf is not plagued by large ice sheets or freezing temperatures, deepwater and ultra-deepwater drilling poses its own unique set of challenges. For example, the reservoirs at these depths are typically high temperature and high pressure, which increases the risk of blowouts and spills. The reservoirs' geologic characteristics also make drilling extremely challenging, as the margin between pore pressure and fracture gradient that drillers must stay within to maintain well integrity is rather narrow. Water depths

of thousands of feet also make spill response efforts, such as installing a capping stack on a well, much more challenging, as was evident in 2010.

Because of the unique and greater risks of drilling in frontier regions, the stakes in these areas could not be higher. As such, it is extremely important that the regulation and safety of offshore drilling be improved before drilling in these areas begins (in the Arctic) or expands (in the Gulf). To that end, the National Commission has stressed three recommendations that are particularly important with respect to frontier areas: establishing adequate science, ensuring regulations sufficiently address risks and ensuring containment and response plans are appropriate.

As discussed above, none of these three broad categories of recommendations have been sufficiently addressed in general, let alone in frontier areas, since the Deepwater Horizon oil disaster in April of 2010. Yet permitting and drilling continue in deepwater and ultra-deepwater areas of the Gulf, and Shell has secured almost all of the permits needed to begin the nation's first major offshore drilling operation in the Arctic. This push to drill in frontier regions without adequate safeguards is one of the most stunning failures of the government and industry to make meaningful changes in the wake of the Deepwater Horizon oil disaster.





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Oceana is the largest international advocacy group working solely to protect the world's oceans. Oceana wins policy victories for the oceans using science-based campaigns. Since 2001, we have protected over 1.2 million square miles of ocean and innumerable sea turtles, sharks, dolphins and other sea creatures. More than 500,000 supporters have already joined Oceana. Global in scope, Oceana has offices in North, South and Central America and Europe. To learn more, please visit www.oceana.org.



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