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Rebecca M. Bratspies

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# A REGULATORY WAKE-UP CALL: LESSONS FROM BP'S DEEPWATER HORIZON DISASTER

REBECCA M. BRATSPIES\*

“[R]eality must take precedence over public relations, for nature cannot be fooled.”<sup>1</sup>

“who cares, it’s done, end of story, will probably be fine.”<sup>2</sup>

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\* Professor, CUNY School of Law. This Article benefitted from a number of discussions, including the Albany Law School’s “Big Oil Big Consequences” Symposium, the 2011 AALS “Deepwater Horizon Hot Topics” Panel, and William & Mary Law School’s “Looking Beyond Deepwater Horizon” Symposium. Special thanks to Hari Osofsky, Rena Steinzor, Joel Mintz, Alyson Flournoy, Victor Flatt, Tracy Hester, and Dale Goble for valuable insights and suggestions, and to Emily Shalcross for research assistance.

<sup>1</sup> R.P. FEYNMAN, PERSONAL OBSERVATIONS ON THE RELIABILITY OF THE SHUTTLE, APP. F TO REPORT OF THE PRESIDENTIAL COMMISSION ON THE SPACE SHUTTLE CHALLENGER ACCIDENT (1986), *available at* [science.ksc.nasa.gov/shuttle/missions/51-l/docs/rogers-commission/Appendix-F.txt](http://science.ksc.nasa.gov/shuttle/missions/51-l/docs/rogers-commission/Appendix-F.txt). Feynman characterizes certain aspects of the NASA space shuttle design program as a “process of gradually fooling oneself while degrading standards.” As we respond to the BP crisis, which represents a combination of failed technology, failed private activity and failed regulatory oversight, we would do well to take his caution, offered in the wake of the Challenger Explosion, to ensure that regulators “deal in a world of reality in understanding technological weaknesses and imperfections well enough to be actively trying to eliminate them. They must live in reality in comparing the costs and utility . . . and they must be realistic in making contracts, in estimating costs, and the difficulty of the projects.” *Id.*

<sup>2</sup> E-mail from BP Engineer Bret Cocalas four days before the Deepwater Horizon disaster, writing about BP’s decision to use only six centralizers in finishing the Macondo well, rather than the twenty-one centralizers recommended by Halliburton. Sharyl Attkisson, *BP May Have Taken Risks with Deepwater Horizon in Order to Save Money, Ignored Advice from Halliburton*, CBS NEWS.COM (June 14, 2010), [www.cbsnews.com/stories/2010/06/14/eveningnews/main6582197.shtml](http://www.cbsnews.com/stories/2010/06/14/eveningnews/main6582197.shtml).

## I. INTRODUCTION

When British Petroleum's (BP) Macondo well blew out on April 21, 2010, it set the Deepwater Horizon drilling rig on fire, killed eleven workers, and created the nation's single worst environmental disaster.<sup>3</sup> It also ripped away the veneer of safety that had cloaked offshore drilling, exposing the massive risks involved in drilling for offshore oil in very deep water—risks government regulators and the public had been persuaded to forget.<sup>4</sup> Yet, even as dead sea turtles,<sup>5</sup> contaminated beaches,<sup>6</sup> and closed fisheries<sup>7</sup> transfixed the public, the seemingly

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<sup>3</sup> President Barack Obama, Remarks by the President to the Nation on the BP Oil Spill (June 15, 2010), *available at* [www.whitehouse.gov/the-press-office/remarks-president-nation-bp-oil-spill](http://www.whitehouse.gov/the-press-office/remarks-president-nation-bp-oil-spill).

<sup>4</sup> On April 2, 2010, just weeks before the April 20 disaster, President Obama announced a plan to open up large swaths of the U.S. coastline to offshore drilling. President Barack Obama, Remarks by the President on Energy Security at Andrews Air Force Base (Mar. 31, 2010). The President justified this decision with the explanation that “[O]il rigs today generally don’t cause spills. They are technologically very advanced.” President Barack Obama, Remarks by the President in a Discussion on Jobs and the Economy in Charlotte, North Carolina (Apr. 2, 2010), *available at* [www.whitehouse.gov/the-press-office/remarks-president-a-discussion-jobs-and-economy-charlotte-north-carolina](http://www.whitehouse.gov/the-press-office/remarks-president-a-discussion-jobs-and-economy-charlotte-north-carolina). In hindsight, this decision reflected what Naomi Klein called “cosmic bad timing.” See Naomi Klein, *A Hole in the World*, NATION, July 12, 2010, *available at* [www.thenation.com/article/36608/hole-world](http://www.thenation.com/article/36608/hole-world). Or, as Professor Oliver Houck wrote, “Both statements are, of course, true. What we also know now is that when they are not true, they are extremely not true.” Oliver A. Houck, *Worst Case and the Deepwater Horizon Blowout: There Ought to Be a Law*, 24 TUL. ENVTL. L.J. 1, 12 n.74 (2010).

<sup>5</sup> For statistics on sea turtle deaths and other wildlife mortality, see DEEPWATER HORIZON RESPONSE CONSOLIDATED FISH AND WILDLIFE COLLECTION REPORT (2010), *available at* [www.restorethegulf.gov/sites/default/files/documents/pdf/Consolidated%20Wildlife%20Table%2010210.pdf](http://www.restorethegulf.gov/sites/default/files/documents/pdf/Consolidated%20Wildlife%20Table%2010210.pdf). For details about the decision to relocate sea turtle nests in an attempt to save hatchlings, see NOAA Fisher, *Sea Turtles, Dolphins and Whales and the Gulf of Mexico Oil Spill*, [www.nmfs.noaa.gov/pr/health/oilspill.htm](http://www.nmfs.noaa.gov/pr/health/oilspill.htm).

<sup>6</sup> According to the Natural Resources Defense Council, there were more than 2200 beach closings due to BP's oil spill. See MARK DORFMAN & KIRSTEN SINCLAIR ROSSELOT, TESTING THE WATERS: A GUIDE TO WATER QUALITY AT VACATION BEACHES 2 (2010), *available at* [www.nrdc.org/water/oceans/tw/tw2010.pdf](http://www.nrdc.org/water/oceans/tw/tw2010.pdf). That figure does not include closures that occurred after July 2010. Even when the beaches were open, visitors stayed away in droves, devastating local economies. In the hardest-hit state, Louisiana, there are 3086 miles of coastline still in need of cleanup (including marshes and beaches), with an additional 1598 miles of beach targeted for cleanup in Mississippi, Alabama, and Florida. See Mark Schleifstein, *Gulf of Mexico Oil Spill Continues to Foul 168 Miles of Louisiana Coastline*, NOLA.COM (Dec. 30, 2010), [www.nola.com/news/gulf-oil-spill/index.ssf/2010/12/gulf\\_of\\_mexico\\_oil\\_spill\\_conti.html](http://www.nola.com/news/gulf-oil-spill/index.ssf/2010/12/gulf_of_mexico_oil_spill_conti.html). The economic losses stemming from beach closings are staggering.

<sup>7</sup> NOAA FISHERIES SERVICE, DEEPWATER HORIZON/BP OIL SPILL: SIZE AND PERCENT COVERAGE OF FISHING AREA CLOSURES DUE TO BP OIL SPILL, *available at* [sero.nmfs.noaa.gov/ClosureSizeandPercentCoverage.htm](http://sero.nmfs.noaa.gov/ClosureSizeandPercentCoverage.htm) (citing key statistics related to fishery closures). As of this writing, much of the Gulf has been reopened to fishing, and its products have been declared safe for consumption. Memorandum from Erik Schwaab, Assistant Admin., Nat'l Marine Fisheries Serv., NOAA, to Michael Taylor, Deputy Comm'r, U.S. Food & Drug Admin., on Re-Opening of Federal Waters (Grids C14-16, 18, 20, 23-25) Surround the Well Head of the Federal

endless gallons of oil gushing into the Gulf (at a rate of at least 53,000 barrels, or more than two million gallons, per day)<sup>8</sup> offered a vivid reminder that an “unimaginably rich and irresistible golden zone of hydrocarbons” lay deep below the Gulf of Mexico.<sup>9</sup> Given the United States’ dependence on fossil fuels,<sup>10</sup> and the current political climate, it is only a matter of time until deepwater drilling recommences. Indeed, seemingly sensible steps like President Obama’s decision to impose a moratorium<sup>11</sup> on such drilling until it was known what went wrong and how to prevent a recurrence were met with blistering legal and political attack.<sup>12</sup>

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Closed Area Due to the Deepwater Horizon MC 252 Oil Spill (Nov. 15, 2010), *available at* [sero.nmfs.noaa.gov/sf/deepwater\\_horizon/Nov15\\_FDA\\_Memo.pdf](http://sero.nmfs.noaa.gov/sf/deepwater_horizon/Nov15_FDA_Memo.pdf). Despite this official position, harm to wildlife and the fishing industry that depends on it continues to be documented. For example, in late November 2010, a portion of the Gulf that had been reopened for shrimping had to be closed because shrimpers were finding tar balls in their nets. Jamie Burch, *NOAA Closes 4200 Square Miles to Royal Red Shrimping*, WKRG.com (Nov. 24, 2010), [www.wkrg.com/gulf\\_oil\\_spill/article/noaa-closes-4200-square-miles-to-royal-red-shrimping1/1202852/Nov-24-2010\\_7-08-pm/](http://www.wkrg.com/gulf_oil_spill/article/noaa-closes-4200-square-miles-to-royal-red-shrimping1/1202852/Nov-24-2010_7-08-pm/). It was again reopened in early February 2011.

<sup>8</sup> Campbell Robertson & Clifford Krauss, *Gulf Spill Is the Largest of Its Kind, Scientists Say*, N.Y. TIMES, Aug. 2, 2010, *available at* [www.nytimes.com/2010/08/03/us/03spill.html?\\_r=1&fta=y](http://www.nytimes.com/2010/08/03/us/03spill.html?_r=1&fta=y).

<sup>9</sup> Jonathan Tilove, *Oil Spill Commission Report Could Shape Industry's Future*, NOLA.COM (Jan. 10, 2011), [www.nola.com/news/gulf-oil-spill/index.ssf/2011/01/oil\\_spill\\_commission\\_report\\_co.html](http://www.nola.com/news/gulf-oil-spill/index.ssf/2011/01/oil_spill_commission_report_co.html).

<sup>10</sup> The U.S. government projects that oil and natural gas will continue to provide more than 75% of total U.S. and global energy needs until 2035 and beyond. Press Release, Energy Info. Admin., EIA Energy Outlook Projects Moderate Growth in U.S. Energy Consumption, Greater Use of Renewables, and Reduced Oil and Natural Gas Imports (Dec. 14, 2009), *available at* [www.eia.doe.gov/neic/press/press334.html](http://www.eia.doe.gov/neic/press/press334.html). This point is particularly troubling because the Energy Information Administration projects that world energy consumption will grow nearly 50% between 2007 and 2035. *See International Energy Outlook 2010*, ENERGY INFO. ADMIN. (July 2010), [www.eia.doe.gov/oiaf/ieo/world.html](http://www.eia.doe.gov/oiaf/ieo/world.html). If that projection is accurate, the world will need to push into ever-more risky regions, and emit ever-increasing amounts of carbon dioxide into our already-warming atmosphere, in the scramble to meet this demand.

<sup>11</sup> Memorandum from Ken Salazar, Secretary of the Interior, to Michael R. Bromwich, Director, Bureau of Ocean Energy Mgmt., Regulation & Enforcement, regarding the suspension of certain offshore permitting and drilling activities on the Outer Continental Shelf (July 12, 2010), *available at* [www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=38375](http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=38375).

<sup>12</sup> *See, e.g., Judge Rules Against Deepwater Drilling Ban*, CBN NEWS (June 22, 2010), [www.cbn.com/cbnnews/politics/2010/June/Oil-Industry-Execs-Criticize-Drilling-Ban/](http://www.cbn.com/cbnnews/politics/2010/June/Oil-Industry-Execs-Criticize-Drilling-Ban/) (quoting an industry advocate as characterizing the ban as “a knee-jerk” reaction); Joe Holley, *Deep-Water Drilling Ban Will Face House Test*, HOUSTON CHRON., June 13, 2010, *available at* [www.chron.com/disp/story.mpl/business/deepwaterhorizon/7049901.html](http://www.chron.com/disp/story.mpl/business/deepwaterhorizon/7049901.html) (quoting Rep. Olsen as characterizing the moratorium as a “knee-jerk reaction” that would wind up “turning a tragedy into a nightmare”); Louisiana Governor Bobby Jindal called the moratorium “ill-advised,” “cynical,” and “arbitrary.” Bobby Jindal, *Ban on Deepwater Drilling Adds Insult to Injury*, WASH. POST, July 16, 2010, *available at* [www.washingtonpost.com/wp-dyn/content/article/2010/07/16/AR2010071605180\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2010/07/16/AR2010071605180_pf.html). Conservative and oil industry bloggers routinely used similar

The window for change may be small, but perhaps Congress and the regulators will muster the political will to resist continuing pressures to simply “drill, baby, drill,”<sup>13</sup> and will instead improve oversight of offshore drilling. The moment for change is now—the disaster is still fresh in the public’s mind, oil companies are posting record profits, and the National Commission on the Deepwater Horizon Spill and Offshore Drilling<sup>14</sup> has issued its report.<sup>15</sup> All the necessary tools are in hand.

The National Commission Report is the obvious starting place. The Report delved into some key questions relating to the spill. It sought to identify and understand BP’s poor choices in the days leading up to the spill.<sup>16</sup> It then tried to evaluate those decisions against the technological backdrop, in which deepwater oil extraction technology had progressed far beyond disaster prevention and mitigation technology.<sup>17</sup> If there are lessons to be learned from this disaster, this is the right approach. Learning from this disaster means understanding why extraction technology innovations flourished while cleanup and prevention technologies stagnated. Only then can we fruitfully identify the kinds of changes to the governance regime that might prevent this sort of tragedy going forward.

In learning from the BP disaster, there are two levels at which to understand what happened, and two kinds of lessons to draw: straightforward and complex. The straightforward lesson focuses on BP as a distinct entity, emphasizing the company’s culpability for its poor decisions.<sup>18</sup> The complex lesson does not deny BP’s culpability but seeks

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characterizations. See, e.g., Sherry Mowery, *Obama the Destroyer: Drilling Ban Devastates Gulf Economy* (July 20, 2010), [www.sodahead.com/united-states/obama-the-destroyer-drilling-ban-devastates-gulf-coast-economy/blog-380737/](http://www.sodahead.com/united-states/obama-the-destroyer-drilling-ban-devastates-gulf-coast-economy/blog-380737/); Peter C. Maffitt, *Obama Ban of Offshore Drilling Undermining Our Country*, BIG PEACE (Dec. 5, 2010, 2:23 PM), [bigpeace.com/pmaffitt/2010/12/05/obama-ban-of-offshore-oil-drilling-undermining-our-country/](http://bigpeace.com/pmaffitt/2010/12/05/obama-ban-of-offshore-oil-drilling-undermining-our-country/); *Obama’s Drilling Plan Piles Billions On Federal Debt*, IMPEACH OBAMA CAMPAIGN.COM (Jan. 17, 2011), [www.impeachobamacampaign.com/obamas-drilling-ban-piles-billions-on-federal-debt/](http://www.impeachobamacampaign.com/obamas-drilling-ban-piles-billions-on-federal-debt/).

<sup>13</sup> This chant from the 2008 Republican National Convention became a campaign slogan for the failed presidential bid of Republican John McCain and his running mate Sarah Palin. Jeffrey Ball, *Palin’s Policy: Drill, Baby, Drill*, ENVIRONMENTAL CAPITAL, WSJ BLOGS (Sept. 4, 2008, 8:26 AM), available at [blogs.wsj.com/environmentalcapital/2008/09/04/palins-policy-drill-baby-drill/](http://blogs.wsj.com/environmentalcapital/2008/09/04/palins-policy-drill-baby-drill/).

<sup>14</sup> President Obama created the Commission on May 21, 2010. Exec. Order No. 13,543, 75 Fed. Reg. 29,397 (May 21, 2010).

<sup>15</sup> NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, REPORT TO THE PRESIDENT, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING (Jan. 11, 2011), available at [www.oilspillcommission.gov/final-report](http://www.oilspillcommission.gov/final-report) [hereinafter NAT’L COMM’N REPORT].

<sup>16</sup> *Id.* at pts. I, II.

<sup>17</sup> *Id.*

<sup>18</sup> Although BP’s culture of risk is the focus of this Article, Hari Osofsky rightly points out that BP had a host of corporate partners that participated in the well and may share some of the

to situate BP's private actions within a broader regulatory context in order to identify systemic failures that contributed to the disaster.

This Article delves into both sets of lessons, concentrating more on the "complex" explanation, which involves recognizing gaps in the statutory scheme and conflicts in agency incentives. Part II begins with a retrospective of the scope and scale of the worst environmental crisis in U.S. history. It then explores the simple explanation for the disaster, situating BP's environmental and safety record against industry norms and practices, and contrasting BP's actions with the corporate ethos described in their "beyond petroleum" ad campaign.

Part III focuses on the complex explanation, identifying some of the regulatory dysfunctions that contributed to the disaster. While acknowledging that poor private decisionmaking was the central and primary cause of the Macondo blowout, this Part focuses on the regulatory and institutional structures that allowed the situation to unfold and details the points at which different regulatory choices might have fruitfully constrained or redirected private activities. It sketches out a widespread regulatory failure. In particular, this Part focuses on the Outer Continental Shelf Lands Act (OCSLA) permitting process, and the National Environmental Policy Act (NEPA) environmental analyses that are supposed to be required by that process. It details how structural aspects of the OCSLA, as well as cultural norms within the agency and regulated community, virtually assured that these processes would dwindle into mere paper-pushing exercises. Further, it suggests that these flaws had been obvious to critics for some time, in many ways making BP's Gulf oil spill a wholly predictable disaster.

Having connected the dots between the various statutory and regulatory regimes that should have prevented this disaster, Part IV of the Article takes a more meta-perspective in order to identify some overarching structural inadequacies in regulatory oversight of private risk management decisions. It focuses on an often-overlooked aspect of the regulatory capture problem—the implicit privatization that occurs when an industry's voluntary standards are adopted as regulatory standards. Finally, the Article ends by drawing some lessons for developing better regulation going forward, both for offshore drilling and environmental assessment more generally.

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blame. See Hari M. Osofsky, *Multi-Dimensional Governance and the BP Deepwater Horizon Oil Spill*, 63 FLA. L. REV. 1, at 9-11 (2011), available at [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1760449](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1760449).

## II. THE SIMPLE EXPLANATION: BP AS BAD ACTOR

## A. BACKGROUND

Until it was reconstituted as the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) in the wake of the Deepwater Horizon disaster,<sup>19</sup> the Minerals Management Service (MMS) regulated the development of Outer Continental Shelf (OCS) oil and natural gas resources.<sup>20</sup> The agency was responsible for supervising all exploration and extraction of gas and mineral resources on federal lands, including offshore drilling in the Gulf of Mexico.<sup>21</sup> For convenience, this Article will refer to the agency as MMS throughout.

The Gulf of Mexico produces a quarter of the total U.S. oil production, or roughly 500 million barrels of oil per year.<sup>22</sup> Deepwater oil production (depths of 1000 feet or more)<sup>23</sup> began in the Gulf of Mexico in 1979 with Shell's Cognac Field located in 1014 feet of water, then a record depth.<sup>24</sup> By 1983, Exxon, Conoco, and Unocal also had deepwater production wells in the Gulf of Mexico.<sup>25</sup> As deepwater production expanded, technology for exploring even-deeper waters

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<sup>19</sup> U.S. DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3302, CHANGE OF THE NAME OF THE MINERALS MANAGEMENT SERVICE TO THE BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION AND ENFORCEMENT (June 18, 2010), available at [www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=35872](http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=35872).

<sup>20</sup> Because MMS was the agency that made the key decisions in the years, months and days leading up to the Deepwater Horizon disaster, this Article uses the term MMS, rather than its successor agency BOEMRE. The only exception is that decisions or documents actually made by BOEMRE after its creation are duly noted as such.

<sup>21</sup> See, e.g., Press Release, U.S. Dep't of the Interior, Salazar Divides MMS's Three Conflicting Missions (May 19, 2010), available at [www.doi.gov/news/pressreleases/Salazar-Divides-MMSs-Three-Conflicting-Missions.cfm](http://www.doi.gov/news/pressreleases/Salazar-Divides-MMSs-Three-Conflicting-Missions.cfm).

<sup>22</sup> Gulf of Mexico and overall U.S. production figures available from BOEMRE, *Outer Continental Shelf (OCS) Oil and Gas Production*, [www.boemre.gov/stats/OCSproduction.htm](http://www.boemre.gov/stats/OCSproduction.htm) (last visited June 27, 2011).

<sup>23</sup> MMS defined deep water for purposes of drilling as water depths greater than or equal to 1,000 ft, and ultra-deep water as water depths greater than or equal to 5,000 ft (1,524 m). See LESLEY D. NIXON ET AL., DEEPWATER GULF OF MEXICO 2009, OCS REPORT MMS 2009-016 at 9 (May 2009), available at [www.gomr.boemre.gov/PDFs/2009/2009-016.pdf](http://www.gomr.boemre.gov/PDFs/2009/2009-016.pdf). BOEMRE now treats any well deeper than 500 feet as a deepwater well. See BOEMRE, *Status of Drilling Permits Subject to Enhanced Safety and Environmental Requirements in the Gulf of Mexico*, [www.gomr.boemre.gov/homepg/offshore/safety/well\\_permits.html](http://www.gomr.boemre.gov/homepg/offshore/safety/well_permits.html) (last visited June 27, 2011).

<sup>24</sup> NIXON ET AL., *supra* note 23, at 10; see also *Shell Confirms Presence of Hydrocarbons in Deimos Prospect*, ALEXANDER'S GAS & OIL CONNECTIONS (Oct. 30, 2002), [www.gasandoil.com/goc/discover/dix24452.htm](http://www.gasandoil.com/goc/discover/dix24452.htm).

<sup>25</sup> NIXON ET AL., *supra* note 23, at 10; Mike Forrest, "Bright" Investments Paid Off, EXPLORER (July 2000), [www.aapg.org/explorer/wildcat/2000/wildcat07.cfm](http://www.aapg.org/explorer/wildcat/2000/wildcat07.cfm).

continued to advance rapidly. Production from deepwater wells soon outstripped oil production from shallow water wells.<sup>26</sup> Then, in 1986, Shell made the first discovery of oil in the Gulf of Mexico in ultra-deep waters (depths greater than 5000 feet (1524 meters)).<sup>27</sup> Since that time, there have been many additional discoveries in the ultra-deep provinces of the Gulf.<sup>28</sup> By 2008, the vast majority of MMS lease sales<sup>29</sup> were in ultra-deep water,<sup>30</sup> and of the 7300 active Gulf leases, over half were in deep water, with sixty-four at depths greater than 5000 feet.<sup>31</sup> By the time that the Macondo well blew out on April 20, 2010, the twenty highest producing areas of the Gulf were located in deep water, and deepwater wells were responsible for about 80% of the oil produced in the Gulf of Mexico.<sup>32</sup>

All of the major oil companies have a stake in the deep waters of the Gulf of Mexico: Shell operates six major offshore facilities and thirteen manned platforms;<sup>33</sup> Chevron has significant deepwater production from its Tahiti and Blind Faith fields;<sup>34</sup> and Exxon has numerous deepwater wells, particularly in its Hoover/Diana field.<sup>35</sup>

But it was BP that made the biggest investment in deepwater drilling in the Gulf of Mexico and around the world. BP is currently the largest leaseholder in the Gulf of Mexico, with stakes in numerous

<sup>26</sup> See, e.g., Toni Johnson, *Deepwater Drilling's Future*, COUNCIL ON FOREIGN RELATIONS [www.cfr.org/united-states/us-deepwater-drillings-future/p22204](http://www.cfr.org/united-states/us-deepwater-drillings-future/p22204) (last updated Jan. 11, 2011) (citing MMS statistics).

<sup>27</sup> SHELL OIL CO., *Mensa Subsea Development*, [www.shell.us/home/content/usa/aboutshell/projects\\_locations/gulf\\_of\\_mexico/offshore\\_shell/operations/mensa\\_0308.html](http://www.shell.us/home/content/usa/aboutshell/projects_locations/gulf_of_mexico/offshore_shell/operations/mensa_0308.html) (last visited June 27, 2011).

<sup>28</sup> See NAT'L COMM'N REPORT, *supra* note 15, at 44-47.

<sup>29</sup> "Lease sale" is the term of art used to refer to both mineral leases on federal lands and the process of selling those leases; interested parties can propose tracts to be included in the scope of a lease sale. The tracts themselves are auctioned off in a fairly complex bidding process. The details of the lease sale process are available on the BOEMRE website, [www.gomr.boemre.gov/homepg/lseale/lseale.html](http://www.gomr.boemre.gov/homepg/lseale/lseale.html).

<sup>30</sup> NIXON ET AL., *supra* note 23, at xi.

<sup>31</sup> CURRY L. HAGERTY & JONATHAN L. RAMSEUR, CONG. RESEARCH SERV., R41262, DEEPWATER HORIZON OIL SPILL: SELECTED ISSUES FOR CONGRESS 3, 9 (July 30, 2010), available at [www.fas.org/sgp/crs/misc/R41262.pdf](http://www.fas.org/sgp/crs/misc/R41262.pdf).

<sup>32</sup> *Id.*

<sup>33</sup> SHELL OIL CO., *Shell in the Gulf of Mexico*, [www.shell.us/home/content/usa/aboutshell/projects\\_locations/gulf\\_of\\_mexico/](http://www.shell.us/home/content/usa/aboutshell/projects_locations/gulf_of_mexico/) (last visited June 27, 2011).

<sup>34</sup> Press Release, Chevron, Chevron Announces First Production from Tahiti Field in Gulf of Mexico (May 6, 2009), available at [www.chevron.com/news/press/release/?id=2009-05-06](http://www.chevron.com/news/press/release/?id=2009-05-06).

<sup>35</sup> *Exxon Says Selling Some Shallow Gulf Assets*, REUTERS (Oct. 5, 2010), [www.reuters.com/article/2010/10/05/exxon-gulf-idUSN0522106320101005](http://www.reuters.com/article/2010/10/05/exxon-gulf-idUSN0522106320101005) (providing statistics); *Exxon Announces Gulf of Mexico Deepwater Discovery*, PR NEWSWIRE (Mar. 10, 1999), [www2.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/73891&EDATE](http://www2.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/73891&EDATE).

deepwater fields.<sup>36</sup> For example, in 2001 BP and Chevron announced that they had struck oil beneath 7000 feet of water and 20,000 feet of sand in the Mississippi Canyon 696.<sup>37</sup> The resulting well, dubbed Blind Faith, began production in 2008.<sup>38</sup>

BP's 1999 Thunder Horse discovery created huge excitement because the Gulf of Mexico site was projected to contain a billion barrels of reserves.<sup>39</sup> However, development at BP's Thunder Horse site was plagued with accidents and near-misses. For example, BP narrowly avoided a blowout in 2003 when a riser pipe connecting the well to the drilling rig snapped.<sup>40</sup> The blowout preventer saved the day, shearing the pipe and shutting down the well.<sup>41</sup> Another near-disaster occurred in 2005 after Hurricane Dennis, when the drilling platform unexpectedly began listing twenty degrees, bringing the lower deck to sea level.<sup>42</sup>

It was not until 2008 that the first gallon of oil was produced from Thunder Horse.<sup>43</sup> In its 2009 Annual Report, BP triumphantly announced that production from Thunder Horse had exceeded 300,000 barrels per day, making it the single largest producer in the Gulf of Mexico.<sup>44</sup> At \$90 a barrel (the price as of this writing), that is nearly \$34 billion per month. In addition to Thunder Horse, BP has numerous other Gulf of

<sup>36</sup> Press Release, BP, BP Thunder Horse Production Ramping Up (Dec. 18, 2008), available at [www.bp.com/genericarticle.do?categoryId=2012968&contentId=7049859](http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7049859).

<sup>37</sup> See Press Release, Chevron, ChevronTexaco Makes Acquisition in Deepwater Gulf of Mexico (Oct. 30, 2003), [www.chevron.com/chevron/pressreleases/article/10302003\\_chevrontexacomakesacquisitionindeepwatergulfofmexico.news](http://www.chevron.com/chevron/pressreleases/article/10302003_chevrontexacomakesacquisitionindeepwatergulfofmexico.news); see also John Collins Rudolf, *On a Wing and a Prayer: Chevron's Deep Well*, N.Y. TIMES GREEN (June 17, 2010, 3:05 PM), [green.blogs.nytimes.com/2010/06/17/on-a-wing-and-a-prayer-chevrons-deep-well/](http://green.blogs.nytimes.com/2010/06/17/on-a-wing-and-a-prayer-chevrons-deep-well/).

<sup>38</sup> Press Release, Chevron, Chevron Announces First Oil from Blind Faith Field in Gulf of Mexico (Nov. 12, 2008), [www.chevron.com/chevron/pressreleases/article/11122008\\_ChevronAnnouncesFirstOilFromBlindFaithFieldinGulfofMexico.news](http://www.chevron.com/chevron/pressreleases/article/11122008_ChevronAnnouncesFirstOilFromBlindFaithFieldinGulfofMexico.news).

<sup>39</sup> NAT'L COMM'N REPORT, *supra* note 15, at 49; JOHN K. WARREN, EVAPORITES: SEDIMENT, RESOURCES AND HYDROCARBONS 774 (2006).

<sup>40</sup> PETER LEHNER & BOB DEANS, IN DEEP WATER: THE ANATOMY OF A DISASTER, THE FATE OF THE GULF, AND HOW TO END OUR OIL ADDICTION 70 (2010).

<sup>41</sup> CJ BEEGLE-KRAUSE & WALTON (TAD) LYNCH, SR., COMBINING MODELING WITH RESPONSE IN POTENTIAL DEEP WELL BLOWOUT: LESSONS LEARNED FROM THUNDER HORSE (2005), available at [response.restoration.noaa.gov/book\\_shelf/1287\\_Thunder%20Horse.pdf](http://response.restoration.noaa.gov/book_shelf/1287_Thunder%20Horse.pdf).

<sup>42</sup> Press Release, BP, BP Assessing Damage to Thunder Horse Platform in Gulf of Mexico (July 12, 2005), available at [www.bp.com/extendedgenericarticle.do?categoryId=2012968&contentId=7007227](http://www.bp.com/extendedgenericarticle.do?categoryId=2012968&contentId=7007227). For photos of the listing platform, see Martin Leduc, *BP Thunderhorse: Engineering Marvel on the Brink of Disaster, July 2005*, DIESEL DUCK.NET (Aug. 2006), [www.dieselduck.ca/images/thunderhorse/index.htm](http://www.dieselduck.ca/images/thunderhorse/index.htm).

<sup>43</sup> NAT'L COMM'N REPORT, *supra* note 15, at 50; see also STANLEY REED & ALISON FITZGERALD, IN TOO DEEP: BP AND THE DRILLING RACE THAT TOOK IT DOWN (2011).

<sup>44</sup> BP 2009 ANNUAL REVIEW: OPERATING AT THE ENERGY FRONTIERS 4 (2010), available at [www.bp.com/assets/bp\\_internet/globalbp/globalbp\\_uk\\_english/set\\_branch/STAGING/common\\_assets/downloads/pdf/BP\\_Annual\\_Review\\_2009.pdf](http://www.bp.com/assets/bp_internet/globalbp/globalbp_uk_english/set_branch/STAGING/common_assets/downloads/pdf/BP_Annual_Review_2009.pdf).

Mexico Drilling projects.<sup>45</sup> Overall, BP produces 400,000 million barrels of oil a day from the Gulf of Mexico,<sup>46</sup> about a quarter of the Gulf's entire daily production,<sup>47</sup> and about 10% of BP's total daily global output.<sup>48</sup>

In the fall of 2009, BP again generated excitement when it announced a new find—this time in the Tiber field, with estimates ranging up to 3 billion gallons of oil.<sup>49</sup> The Tiber well was drilled in 4132 feet of water and reached a depth of almost 31,000 feet beneath the seafloor.<sup>50</sup> The drilling rig was Deepwater Horizon, the same rig that worked on the ill-fated Macondo well.<sup>51</sup>

Drilling for oil in deep and ultra-deep water is a challenging technical feat. Getting equipment to the cold, dark seabed, under thousands of feet of water, is only the beginning. The operator must then drill tens of thousands of feet below the sea bed to reach the oil, which is located in geological formations that may not be very stable.<sup>52</sup> The oil is typically hot, up to 100 degrees Fahrenheit, and under very high pressure. The temperature and pressure differentials between the oil and the water put a tremendous strain on the drilling equipment. The operator must manage all these complexities while also keeping the floating drilling rig, which is on the water surface thousands of feet above the drill site, stable in seas that can be quite rough.

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<sup>45</sup> According to a 2008 press release, these projects include Atlantis North Flank, Tubular Bells, Isabela, Greater Puma, Dorado, King South, Great White, and the Ursa/Princess waterflood. BP is also appraising its significant discoveries at Kaskida and Kodiak and recently announced a significant discovery at its Freedom Prospect. Press Release, BP, BP Thunder Horse Production Ramping Up (Dec. 18, 2008), available at <http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7049859>.

<sup>46</sup> BP 2009 ANNUAL REVIEW, *supra* note 44, at 14.

<sup>47</sup> *Crude Oil Production*, U.S. ENERGY INFO. ADMIN. (July 29, 2010), [www.eia.gov/dnav/pet/pet\\_crd\\_crpdn\\_adc\\_mbbldpd\\_a.htm](http://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbldpd_a.htm).

<sup>48</sup> Steve Goldstein, *BP Swings to Profit on Oil Price Rise, Cost Cuts*, WALL ST. J. MARKETWATCH (Feb. 2, 2010), available at [www.marketwatch.com/story/bp-swings-to-profit-on-oil-price-rise-cost-cuts-2010-02-02?dist=WSJfeed&siteid=WSJ](http://www.marketwatch.com/story/bp-swings-to-profit-on-oil-price-rise-cost-cuts-2010-02-02?dist=WSJfeed&siteid=WSJ).

<sup>49</sup> Joe Carroll, *BP's Tiber Find May Signal Oil Revival in U.S. Gulf of Mexico*, BLOOMBERG (Sept. 2, 2009), [www.bloomberg.com/apps/news?pid=newsarchive&sid=aNrwOK1CUMMA](http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aNrwOK1CUMMA); Press Release, BP, BP Announces Giant Oil Discovery in the Gulf of Mexico (Sept. 2, 2009), available at [www.bp.com/genericarticle.do?categoryId=2012968&contentId=7055818](http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7055818).

<sup>50</sup> Press Release, BP, BP Announces Giant Oil Discovery in the Gulf of Mexico (Sept. 2, 2009), available at [www.bp.com/genericarticle.do?categoryId=2012968&contentId=7055818](http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7055818).

<sup>51</sup> Usually oil exploration sites have names that evoke power, heroism or machismo. Perhaps BP attracted the evil eye by naming its well after the town destined to be destroyed in Gabriel Garcia Márquez's *One Hundred Years of Solitude* (1967).

<sup>52</sup> For a description of these complexities, see Joao Lima & Fred Pals, *BP's Tiber Find Underscores Challenges of Deepwater Exploration*, BLOOMBERG (Sept. 2, 2009), [www.bloomberg.com/apps/news?pid=newsarchive&sid=ak0cLK9YU51E](http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ak0cLK9YU51E); see also NAT'L COMM'N REPORT, *supra* note 15, at 21-53.

## B. THE DISASTER UNFOLDS

BP initially began drilling the Macondo well on October 7, 2009, with a rig called the Marianas. However, in November of 2009, Hurricane Ida damaged the Marianas, and drilling was stopped until the rig could be replaced.<sup>53</sup> It was not until February 2010 that drilling recommenced with the Deepwater Horizon.<sup>54</sup> The cost of leasing the Deepwater Horizon rig from Transocean was approximately \$500,000 per day.<sup>55</sup> BP targeted drilling the well to take fifty-one days and cost approximately \$96 million.<sup>56</sup> Drilling took considerably longer than anticipated. By April 20, 2010, the day of the disaster, BP and the Macondo well were almost six weeks behind schedule and more than \$58 million over budget.<sup>57</sup> With the Deepwater Horizon rig late for its next drilling location, delay was costing BP tens of millions of dollars in leasing fees alone.<sup>58</sup> The time, pressure, and cost overruns formed the backdrop against which BP made a series of fateful decisions in the days and hours before the blowout.

On April 16, 2010, BP staff and Schlumberger, an oilfield service provider acting as consultant on the well, recommended that BP triple the number of stabilizers in the well in order to avoid “a severe gas flow potential.”<sup>59</sup> Noting that the design change would take ten hours, BP Team Leader, John Guide, overruled the recommendation.<sup>60</sup> The well was completed without the additional stabilizers. BP finished cementing the well on April 20.<sup>61</sup> Despite having flown a Schlumberger crew out to the rig to perform a cement bond log test, BP opted to send them back

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<sup>53</sup> NAT'L COMM'N REPORT, *supra* note 15, at 2.

<sup>54</sup> *Oil Spill in the Gulf of Mexico--Special Report*, GULF OIL & GAS, [www.gulfoilandgas.com/webpro1/projects/3dreport.asp?id=102868](http://www.gulfoilandgas.com/webpro1/projects/3dreport.asp?id=102868) (last visited June 27, 2011).

<sup>55</sup> BP's contract with Transocean specified that the daily rate would range from \$458,000 in March 2008 to \$517,000 in September 2010. See *Transocean Fleet Update* n.11, TRANSOCEAN (Apr. 13, 2010), available at [www.deepwater.com/\\_filelib/FileCabinet/fleetupdate/2010/RIGFLT-APR-2010.pdf?FileName=RIGFLT-APR-2010.pdf](http://www.deepwater.com/_filelib/FileCabinet/fleetupdate/2010/RIGFLT-APR-2010.pdf?FileName=RIGFLT-APR-2010.pdf).

<sup>56</sup> BP, GOM EXPLORATION WELLS MC 252 #1--MACONDO PROSPECT WELL INFORMATION (Sept. 2009), available at [democrats.energycommerce.house.gov/documents/20100614/Macondo.Prospect.Well.Information.pdf](http://democrats.energycommerce.house.gov/documents/20100614/Macondo.Prospect.Well.Information.pdf).

<sup>57</sup> NAT'L COMM'N REPORT, *supra* note 15, at 2.

<sup>58</sup> HOUSE OF COMMONS, ENERGY AND CLIMATE CHANGE COMMITTEE, UK DEEPWATER DRILLING: IMPLICATIONS OF THE GULF OF MEXICO OIL SPILL 45 (2010).

<sup>59</sup> Joe Carroll & Edward Klump, *BP Engineer May Shed Light on Gulf Spill as Decision Is Probed*, BLOOMBERG (Aug. 27, 2010), [www.bloomberg.com/news/2010-08-27/bp-engineer-may-shed-light-on-gulf-spill-as-john-s-decision-is-probed.html](http://www.bloomberg.com/news/2010-08-27/bp-engineer-may-shed-light-on-gulf-spill-as-john-s-decision-is-probed.html).

<sup>60</sup> *Id.*

<sup>61</sup> *Id.*

and forgo the tests, thereby saving \$128,000.<sup>62</sup>

Choices by the rig owner, Transocean, further compounded the risk. For at least a year, Transocean had been disabling critical warning and safety systems intended to detect gas leaks and prevent explosions, on the grounds that “false alarms” would wake up workers.<sup>63</sup> Transocean also elected to bypass a key system on the blowout preventer control panel that might have prevented the explosion by cutting off spark sources once gas got in the drill stack.<sup>64</sup> Five weeks before the disaster a Transocean engineer reported seeing damage to the blowout preventer,<sup>65</sup> a critical piece of safety equipment that was the rig’s last line of defense against catastrophic failure.<sup>66</sup> Despite having made extensive representations to regulators about the critical safety role of blowout preventers in preventing major spills,<sup>67</sup> BP apparently either did not know or did not care about the damage.

On the day of the explosion, a negative pressure test—a test intended to make sure no gas or oil was seeping into the well—indicated that the well was not properly sealed.<sup>68</sup> Running the test two more times yielded similar results.<sup>69</sup> Instead of believing the results and taking appropriate steps, the team decided to run the test again. When the test was run for a fourth time, it registered the result the team had been looking for.<sup>70</sup> Rather than try to reconcile the contradictory information,

<sup>62</sup> *Testimony of John Guide, Hearing Before the Deepwater Horizon Joint Investigation Team* (C-Span television broadcast, July 22, 2010), available at [www.c-spanvideo.org/program/294696-2](http://www.c-spanvideo.org/program/294696-2).

<sup>63</sup> *Testimony of Mike Williams, Hearing Before the Deepwater Horizon Joint Investigation Team*, (C-Span television broadcast, July 23, 2010), available at [www.c-spanvideo.org/program/294728-1](http://www.c-spanvideo.org/program/294728-1); see also David Hammer, *Deepwater Horizon Safety Alerts Were Bypassed to Avoid False Alarms, Witness Says*, NOLA.COM (July 23, 2010), [www.nola.com/news/gulf-oil-spill/index.ssf/2010/07/deepwater\\_horizon\\_safety\\_alert.html](http://www.nola.com/news/gulf-oil-spill/index.ssf/2010/07/deepwater_horizon_safety_alert.html).

<sup>64</sup> Hammer, *supra* note 63 (quoting Chief Electronics technician Mike Williams that he had been told Transocean rigs always used this bypass).

<sup>65</sup> *Id.*; see also 60 Minutes, *Blowout: The Deepwater Horizon Disaster* (CBS television broadcast May 16, 2010), available at [www.cbsnews.com/stories/2010/05/16/60minutes/main6490197.shtml](http://www.cbsnews.com/stories/2010/05/16/60minutes/main6490197.shtml) (Scott Pelley interviewing Mike Williams).

<sup>66</sup> Carl Franzen, *Oil Spill Points to Rig Fail-Safe as Utter Failure*, AOLNEWS (Apr. 30, 2010), [www.aolnews.com/2010/04/30/oil-spill-debacle-points-to-rig-fail-safe-as-utter-failure/](http://www.aolnews.com/2010/04/30/oil-spill-debacle-points-to-rig-fail-safe-as-utter-failure/). For a video explaining blow-out preventers and what they are intended to do, see Video: Gulf of Mexico Oil Spill--Blow Out Preventer, [www.youtube.com/watch?v=5vCIadA62m0](http://www.youtube.com/watch?v=5vCIadA62m0) (uploaded May 10, 2010).

<sup>67</sup> See *infra* Part II.

<sup>68</sup> Peter Elkin, David Whitford, & Doris Burke, *BP: “An Accident Waiting to Happen,”* CNNMONEY (Jan. 24, 2011, 5:00 AM ET), [features.blogs.fortune.cnn.com/2011/01/24/bp-an-accident-waiting-to-happen/](http://features.blogs.fortune.cnn.com/2011/01/24/bp-an-accident-waiting-to-happen/).

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

the team accepted the last set of results and deemed the test satisfactory—a consequence, perhaps, of the fact that BP had no standard procedures for running the tests or for interpreting the results.<sup>71</sup> Hours later, hydrocarbons entered the well-bore, a gas leak ignited, the blowout preventer failed, and the rig exploded.<sup>72</sup> The blowout preventer on the Deepwater Horizon had not been properly certified, despite the clear legal obligation of BP as the lessee to do so.<sup>73</sup> In its own assessment of the accident, BP concluded that “a complex and interlinked series of mechanical failures, human judgment, engineering design, operational implementation, and team interfaces came together to allow the initiation and escalation of the accident.”<sup>74</sup>

### C. STOPPING THE LEAK

When the Macondo well blew out, BP had no plan for how to stop the flow of oil from the well and no equipment with which to do it. Indeed, it took BP months to construct the equipment that it ultimately used to stem the flow of oil.<sup>75</sup> The entire country could do little more

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<sup>71</sup> *Id.*

<sup>72</sup> See DET NORSKE VERITAS, FINAL REPORT FOR UNITED STATES DEPARTMENT OF INTERIOR: FORENSIC EXAMINATION OF DEEPWATER HORIZON BLOWOUT PREVENTER (Mar 20, 2011), available at [www.deepwaterinvestigation.com/external/content/document/3043/1047291/1/DNV%20Report%20EP030842%20for%20BOEMRE%20Volume%20I.pdf](http://www.deepwaterinvestigation.com/external/content/document/3043/1047291/1/DNV%20Report%20EP030842%20for%20BOEMRE%20Volume%20I.pdf); see also NAT'L COMM'N REPORT, *supra* note 15, at 6-10.

<sup>73</sup> *Key Device in BP Disaster Wasn't Recertified*, MSNBC.COM (Aug. 25, 2010), available at [www.msnbc.msn.com/id/38855355/ns/disaster\\_in\\_the\\_gulf/](http://www.msnbc.msn.com/id/38855355/ns/disaster_in_the_gulf/).

<sup>74</sup> BP, *DEEPWATER HORIZON ACCIDENT INVESTIGATION REPORT 11* (Sept. 2010), available at [www.bp.com/liveassets/bp\\_internet/globalbp/globalbp\\_uk\\_english/incident\\_response/STAGING/local\\_assets/downloads\\_pdfs/Deepwater\\_Horizon\\_Accident\\_Investigation\\_Report.pdf](http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/incident_response/STAGING/local_assets/downloads_pdfs/Deepwater_Horizon_Accident_Investigation_Report.pdf). This report was widely criticized for attempting to shift culpability away from BP. Pages 22-29 of the report provide a useful chronology of the days leading up to the disaster.

<sup>75</sup> BP spent weeks building a four-story-tall containment dome, which failed to contain the oil gushing from the damaged well. Maev Kennedy, *Gulf Oil Spill: Quick Fix Dashed as BP Tower Fails to Contain Oil*, GUARDIAN.CO.UK (May 9, 2010), available at [www.guardian.co.uk/environment/2010/may/09/bp-oil-spill-tower-fails](http://www.guardian.co.uk/environment/2010/may/09/bp-oil-spill-tower-fails). The company then tried again, with a smaller version of the containment dome, a device dubbed “top hat,” which was also intended to cap the well. Kevin Grandia, *BP Officially Ditches “Operation Top Hat,” Moves to Insertion Tube to Stop Oil Spill*, HUFFPOST GREEN (May 14, 2010, 8:09 PM), [www.huffingtonpost.com/kevin-grandia/bp-officially-ditches-ope\\_b\\_577210.html](http://www.huffingtonpost.com/kevin-grandia/bp-officially-ditches-ope_b_577210.html). When that device failed, BP attempted a procedure called “top kill,” which also failed. Jason Hanna, *How BP's “Top Kill” Procedure Will Work*, CNN U.S. (May 24, 2010), [articles.cnn.com/2010-05-24/us/faq.top.kill.bp\\_1\\_drilling-mud-blowout-oil?\\_s=PM:US](http://articles.cnn.com/2010-05-24/us/faq.top.kill.bp_1_drilling-mud-blowout-oil?_s=PM:US). Leslie Kaufman & Clifford Kraus, *BP Prepares to Take New Tack on Leak as “Top Kill” Fails*, N.Y. TIMES (May 29, 2010), available at [www.nytimes.com/2010/05/30/us/30spill.html](http://www.nytimes.com/2010/05/30/us/30spill.html). It took until July 15, 2010, for BP to successfully deploy a containment cap that stopped the flow of oil into the Gulf. Suzanne Goldenberg, *BP Stops Oil Leak in Gulf of Mexico for First Time Since April*, GUARDIAN.CO.UK (July 16, 2010), [www.guardian.co.uk/environment/2010/jul/16/bp-oil-spill-leak-stopped](http://www.guardian.co.uk/environment/2010/jul/16/bp-oil-spill-leak-stopped). On September 19, Admiral

than watch as more than two million gallons of oil a day<sup>76</sup>—an Exxon Valdez spill every four days<sup>77</sup>—gushed into one of the most diverse and productive fisheries in the world.

During the eighty-seven days it took BP to finally stop the leak, over 4.9 million barrels of crude oil (200 million gallons) gushed into the Gulf of Mexico.<sup>78</sup> At one point, a third of the American portion of the Gulf of Mexico was closed to fishing.<sup>79</sup> The spill was not only the worst environmental disaster in U.S. history, but also the worst accidental oil spill ever in the history of the world.<sup>80</sup> Shutting down the well did not magically make the oil go away, despite early government claims to the contrary.<sup>81</sup>

As a result of the blowout, large quantities of oil are on the bottom of the ocean and suspended in the water column in hundred-mile-long plumes<sup>82</sup>—a deadly threat to fish populations, coral reefs, and other

Thad Allen, USCG, announced the well was effectively dead after a relief well was completed and cement was pumped into the Macondo well to seal it. Associated Press, *Blown-out BP Oil Well Finally Sealed*, THE INDEPENDENT (Sept. 19, 2010), [www.independent.co.uk/news/world/americas/blownout-bp-oil-well-finally-sealed-2083767.html](http://www.independent.co.uk/news/world/americas/blownout-bp-oil-well-finally-sealed-2083767.html).

<sup>76</sup> The official estimate is that at the beginning of the disaster, the oil was flowing at 63,000 barrels per day, and just before the well was capped, the flow was 53,000 barrels per day. Since there are forty-two gallons in a barrel, that means that the flow rate in gallons was between 2.2 and 2.6 million gallons per day. Press Release, U.S. Dep't of the Interior, U.S. Scientific Teams Refine Estimates of Oil Flow from BP's Well Prior to Capping (Aug. 2, 2010), available at [www.doi.gov/news/pressreleases/US-Scientific-Teams-Refine-Estimates-of-Oil-Flow-from-BP-Well-Prior-to-Capping.cfm](http://www.doi.gov/news/pressreleases/US-Scientific-Teams-Refine-Estimates-of-Oil-Flow-from-BP-Well-Prior-to-Capping.cfm) [hereinafter Scientific Teams Refine Estimates].

<sup>77</sup> The most common figure quoted for the size of the Exxon Valdez spill is eleven million gallons. That figure apparently comes from Exxon's own calculations and many suggest it is an underestimate. See *How Much Oil Really Spilled from the Exxon Valdez*, ON THE MEDIA (June 18, 2010), [www.onthemediamedia.org/transcripts/2010/06/18/01](http://www.onthemediamedia.org/transcripts/2010/06/18/01).

<sup>78</sup> Scientific Teams Refine Estimates, *supra* note 76.

<sup>79</sup> All of the key statistics related to fisheries closures can be found in *Deepwater Horizon/BP Oil Spill: Size and Percent Coverage of Fishing Area Closures Due to BP Oil Spill*, NOAA FISHERIES SERV., [sero.nmfs.noaa.gov/ClosureSizeandPercentCoverage.htm](http://sero.nmfs.noaa.gov/ClosureSizeandPercentCoverage.htm) (last updated Apr. 29, 2011). As of this writing, almost the entire Gulf has been reopened to fishing.

<sup>80</sup> The only worse spill was the intentional release from the Kuwaiti oil fields during the First Gulf War.

<sup>81</sup> See *Federal Science Report Details Fate of Oil from BP Spill*, NOAA (Aug. 4, 2010), [www.noaanews.noaa.gov/stories2010/20100804\\_oil.html](http://www.noaanews.noaa.gov/stories2010/20100804_oil.html); JANE LUBCHENCO ET AL., NAT'L OCEANIC & ATMOSPHERIC ADMIN., BP DEEPWATER HORIZON OIL BUDGET: WHAT HAPPENED TO THE OIL?, available at [www.noaanews.noaa.gov/stories2010/PDFs/OilBudget\\_description\\_%2083final.pdf](http://www.noaanews.noaa.gov/stories2010/PDFs/OilBudget_description_%2083final.pdf) (claiming that the vast majority of the oil had been recovered, burned, skimmed or dispersed and degraded, thus posing no continuing threat to the environment). For refutation of this claim, see, e.g., Matt Gutman & Kevin Dolak, *Oil from the BP Spill Found at Bottom of Gulf*, ABC NEWS (Sept. 12, 2010), [abcnews.go.com/WN/oil-bp-spill-found-bottom-gulf/story?id=11618039](http://abcnews.go.com/WN/oil-bp-spill-found-bottom-gulf/story?id=11618039); John D. Sutter, *Defender of the Deep: The Oil's Not Gone*, CNN U.S. (Aug. 24, 2010), [articles.cnn.com/2010-08-24/us/samantha.joye.gulf.oil\\_1\\_oil-spill-samantha-joye-ecological-disaster?\\_s=PM:US](http://articles.cnn.com/2010-08-24/us/samantha.joye.gulf.oil_1_oil-spill-samantha-joye-ecological-disaster?_s=PM:US).

<sup>82</sup> David Biello, *Massive Oil Plume Confirmed in Gulf of Mexico*, SCIENTIFIC AMERICAN

marine life, such as whales and turtles.

Then there is the dispersant. Over the course of the eighty-seven days, BP sprayed 1.84 million gallons of Corexit into the Gulf of Mexico.<sup>83</sup> Of that, 1.07 million gallons were on the surface waters of the Gulf of Mexico and the remaining 771,000 gallons were applied near the head of the well (at a depth of 5000 feet).<sup>84</sup> Not only was this quantity of dispersant unprecedented, but dispersants had never before been sprayed in a water column.<sup>85</sup> The dispersant itself is toxic with very little known about its long-term effects on humans or the environment.<sup>86</sup> What is known is troubling. For example, Corexit was used heavily after the Exxon Valdez oil spill.<sup>87</sup> Many clean-up workers later suffered kidney, liver, and other health problems thought to be related to the dispersant.<sup>88</sup> Moreover, because of harmful effects on sea life, Corexit has been banned for a decade in the United Kingdom.<sup>89</sup> Nonetheless, BP elected to use Corexit even though less toxic and more effective alternative dispersants were available.<sup>90</sup>

Dispersants do not change the chemical composition of the oil, nor do they make oil any less toxic. Instead, dispersants break an oil slick up into tiny oil droplets—thereby dispersing the spill.<sup>91</sup> This is thought to

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(Aug. 19, 2010), [www.scientificamerican.com/article.cfm?id=masive-oil-plume-confirmed-in-gulf-of-mexico](http://www.scientificamerican.com/article.cfm?id=masive-oil-plume-confirmed-in-gulf-of-mexico).

<sup>83</sup> See Joint Info. Ctr., *The Ongoing Administration-Wide Response to the Deepwater BP Oil Spill*, RESTORETHEGULF.GOV (Sept. 17, 2010), [www.restorethegulf.gov/release/2010/09/17/ongoing-administration-wide-response-deepwater-bp-oil-spill](http://www.restorethegulf.gov/release/2010/09/17/ongoing-administration-wide-response-deepwater-bp-oil-spill).

<sup>84</sup> *Id.*

<sup>85</sup> NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, *Dispersants*, [www.oilspillcommission.gov/media/response/response-actions-dispersants.html](http://www.oilspillcommission.gov/media/response/response-actions-dispersants.html) (last visited June 27, 2011) [hereinafter *Dispersants*].

<sup>86</sup> Indeed, the manufacturer's material safety data sheet states that no toxicity studies have been performed on Corexit. See NALCO, MATERIAL SAFETY DATA SHEET: COREXIT 9500 (2005), available at [www.lmrk.org/corexit\\_9500\\_uscueg.539287.pdf](http://www.lmrk.org/corexit_9500_uscueg.539287.pdf).

<sup>87</sup> For analysis of the parallels between the Exxon Valdez spill and the BP spill, focusing on systemic failure to adequately regulate offshore, see Zygmunt J.B. Plater, *Learning from Disasters: Twenty-One Years After the Exxon Valdez Spill, Will Reactions to the Deepwater Horizon Blowout Finally Address the Systemic Flaws Revealed in Alaska?*, 40 ENVTL. L. REP. News & Analysis 11,041 (2010), available at [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1726053](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1726053).

<sup>88</sup> Paul Quinlan, *Less Toxic Dispersants Lose Out in BP Oil Spill Cleanup*, N.Y. TIMES, May 13, 2010, available at [www.nytimes.com/2010/05/13/business/energy-environment/13greenwire-less-toxic-dispersants-lose-out-in-bp-oil-spil-81183.html](http://www.nytimes.com/2010/05/13/business/energy-environment/13greenwire-less-toxic-dispersants-lose-out-in-bp-oil-spil-81183.html).

<sup>89</sup> Letter from Rep. Edward J. Markey to Lisa Jackson, EPA Administrator (May 17, 2010), available at [www.propublica.org/documents/item/letter-about-disperants-from-rep.-markey-to-epa1](http://www.propublica.org/documents/item/letter-about-disperants-from-rep.-markey-to-epa1).

<sup>90</sup> Quinlan, *supra* note 88; Jeffrey Ball, *Spill's Ills Could Be Felt Under the Water*, WALL ST. J. (May 17, 2010), available at [online.wsj.com/article/SB10001424052748704379004575248841234368332.html](http://online.wsj.com/article/SB10001424052748704379004575248841234368332.html).

<sup>91</sup> For an explanation of dispersants aimed at the lay reader, see Katie Peek, *How Do Oil Dispersants Work?* POPSCI (May 28, 2010), [www.popsoci.com/science/article/2010-05/how-do-oil-](http://www.popsoci.com/science/article/2010-05/how-do-oil-)

reduce the amount of oil that comes onshore.<sup>92</sup> However, it does so by increasing the amount of oil that remains suspended in the water column. Dispersants have never been applied on the scale they were used by BP, and as Senator Sheldon Whitehouse pointed out, there are real questions whether their use will make things better or worse.<sup>93</sup> In essence, the spill response in the Gulf of Mexico was a giant chemistry experiment.

#### D. THE SIMPLE EXPLANATION

One obvious explanation for this disaster is that BP is a bad actor. There is certainly ample evidence both from the Deepwater Horizon disaster and from BP's general modus operandi to support such a conclusion.

BP's conduct in the days leading up to the explosion certainly gives support to the inference of culpability. BP knew, long before the Macondo well blew out on April 20, that it had no way to stop the leak. The company knew this when it elected not to conduct a cement bond log test on the well<sup>94</sup> and when it chose the "cheap but risky" method to case the well.<sup>95</sup> BP knew this on April 9, 2010, when the company claimed in written comments that its deep water drilling activities "would not have an effect, cumulatively or individually, on the environment."<sup>96</sup> Worst of all, BP knew this when it assured MMS:

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry-wide standards for using proven equipment and technology for such responses, implementation of BP's Regional Oil Spill Response Plan which address [sic] available equipment and personnel, techniques for

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dispersants-work.

<sup>92</sup> *Dispersants*, *supra* note 85.

<sup>93</sup> "It is unclear if it [Corexit] will limit the damage from the spill, or cause even greater harm." *Sen. Whitehouse, Environment and Public Works Committee Hearing on the Use of Dispersants in the Gulf Oil Spill* (C-Span television broadcast, Aug. 4, 2010), available at [www.c-spanvideo.org/program/294897-2](http://www.c-spanvideo.org/program/294897-2); Matthew L. Wald, *The Politics of Dispersants*, N.Y. TIMES GREEN, (Aug. 4, 2010, 2:58 PM), [green.blogs.nytimes.com/2010/08/04/the-politics-of-dispersants/](http://green.blogs.nytimes.com/2010/08/04/the-politics-of-dispersants/).

<sup>94</sup> *Testimony of John Guide, Hearing Before the Deepwater Horizon Joint Investigation Team* (C-Span television broadcast July 22, 2010), available at [www.c-spanvideo.org/program/294696-2](http://www.c-spanvideo.org/program/294696-2).

<sup>95</sup> Ian Urbina, *BP Used Riskier Method to Seal Well Before Blast*, N.Y. TIMES, May 26, 2010, available at [www.nytimes.com/2010/05/27/us/27rig.html?\\_r=2&hp](http://www.nytimes.com/2010/05/27/us/27rig.html?_r=2&hp).

<sup>96</sup> Letter from Margaret D. Laney, Senior Federal Affairs Director, BP Am., Inc., to Nancy Sutley, Chair, Council on Env'tl. Quality, on Steps to Modernize and Reinvigorate NEPA (Apr. 9, 2010), available at [media.washingtonpost.com/wp-srv/nation/pdf/BP\\_letter\\_050410.pdf](http://media.washingtonpost.com/wp-srv/nation/pdf/BP_letter_050410.pdf) (commenting on behalf of BP in favor of categorical exclusions).

containment, and recovery and removal of the oil spill.<sup>97</sup>

Unfortunately, there were no such proven and available equipment or techniques.<sup>98</sup> Indeed, it is an open secret in the industry that nobody has any idea of how to stop a deep sea leak.<sup>99</sup>

Even before the Deepwater Horizon disaster, BP's safety record was abysmal. In a series of high-profile incidents, BP's failures to invest in safety left a trail of death and destruction around the world, resulting in multiple criminal and civil sanctions. In the United States, the two highest profile incidents occurred in 2005 and 2006. In 2005, BP's largest refinery, a 19.3-million-gallon-a-day facility in Texas City, Texas, exploded, killing fifteen workers and injuring more than 180.<sup>100</sup> Federal investigators discovered more than 300 safety violations at the facility and fined the company \$21.3 million.<sup>101</sup> The Chemical Safety Board attributed the disaster to ill-advised cost-cutting that skimmed on maintenance.<sup>102</sup> BP ultimately pled guilty to criminal violations of the Clean Air Act and paid \$50 million in criminal fines.<sup>103</sup> In October 2009, OSHA again fined BP for 709 violations at the same Texas plant, including many of the same violations that caused the fatal 2005 explosion. This time the fine was an OSHA record—\$87.7 million.<sup>104</sup>

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<sup>97</sup> BP GULF OF MEXICO REGIONAL RESPONSE PLAN (2009), available at [www.boemre.gov/DeepwaterHorizon/BP\\_Regional\\_OSRP\\_Redactedv2.pdf](http://www.boemre.gov/DeepwaterHorizon/BP_Regional_OSRP_Redactedv2.pdf).

<sup>98</sup> In announcing the failure of the "top kill" and announcing the company's next plan to stop the leak, BP's Chief Operating Officer cautioned that as with earlier efforts, it had never been tried at 5000 feet below sea level using robotic submarines. Margot Roosevelt & Louis Sahagun, *Gloom Grows as BP's "Top Kill" Effort Fails*, L.A. TIMES (May 30, 2010), available at [articles.latimes.com/2010/may/30/nation/la-na-oil-spill-20100530](http://articles.latimes.com/2010/may/30/nation/la-na-oil-spill-20100530) (quoting Doug Suttles, BP Chief Operating Officer).

<sup>99</sup> In a moment of candor unusual in the offshore drilling context, Shell admitted as much in an Environmental Assessment it filed with MMS for a drilling project. See SHELL DEEPWATER DEV. INC., INITIAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT, GREEN CANYON AREA, BLOCKS 158 & 202 (May 9, 2000), available at [www.gomr.boemre.gov/PI/PDFImages/PLANS/1/1263.pdf](http://www.gomr.boemre.gov/PI/PDFImages/PLANS/1/1263.pdf) [hereinafter BLOCKS 158 & 202] (MMS nonetheless issued a Finding of No Significant Impact, and approved Shell's proposal).

<sup>100</sup> U.S. CHEM. SAFETY & HAZARD INVESTIGATION BD., INVESTIGATION REPORT: REFINERY EXPLOSION AND FIRE (Mar. 2007), available at [www.csb.gov/assets/document/CSBFinalReportBP.pdf](http://www.csb.gov/assets/document/CSBFinalReportBP.pdf).

<sup>101</sup> *Id.* For perspective, that amounted to roughly the equivalent of two-and-a-half hours' worth of production from Thunder Horse.

<sup>102</sup> Steven Mufson, *Cost-Cutting Led to Blast at BP Plant, Probe Finds*, WASH. POST, Oct. 31, 2006, available at [www.washingtonpost.com/wp-dyn/content/article/2006/10/30/AR2006103001154.html](http://www.washingtonpost.com/wp-dyn/content/article/2006/10/30/AR2006103001154.html).

<sup>103</sup> Katherine Fraser, *BP Texas City Disaster Case: Judge Found Punishment Fit the Crime*, THE BARREL (Mar. 18, 2009), available at [www.platts.com/weblog/oilblog/2009/03/18/bp\\_texas\\_city\\_disaster\\_case\\_judge\\_found\\_punishment\\_fit\\_the\\_crime.html](http://www.platts.com/weblog/oilblog/2009/03/18/bp_texas_city_disaster_case_judge_found_punishment_fit_the_crime.html).

<sup>104</sup> News Release, U. S. Dep't of Labor, US Department of Labor[']s OSHA Issues Record-

The very next year, 2006, poor maintenance on a BP pipeline in Alaska led to the largest oil spill ever in Alaska's Prudhoe Bay, spewing nearly 300,000 gallons of crude oil.<sup>105</sup> Once again, BP's cost-cutting led to disaster. BP pled guilty to criminal negligence, paid a \$20 million criminal fine,<sup>106</sup> and received three years of probation.<sup>107</sup> Testifying about the disaster before the Senate Committee on Energy and Natural Resources, Admiral Thomas Barrett, administrator of the Pipeline and Hazardous Materials Safety Administration for the Department of Transportation, repeatedly testified about BP's operations that "most operators demonstrate a higher standard of care in their operations" and said it was "a mystery" why BP did not perform routine maintenance.<sup>108</sup>

Things did not improve much after BP's twin criminal convictions. Between 2007 and 2010, just two BP facilities, the Texas facility that had been the site of the 2005 disaster and a Toledo, Ohio, facility received citations for 862 OSHA violations.<sup>109</sup> These violations constituted 97% of the industry total, and were two orders of magnitude greater than those of any other oil company.<sup>110</sup> What is worse, the overwhelming majority (760) were for "willful and egregious" safety violations.<sup>111</sup> During the same time period, BP's competitors had much stronger safety track records. ConocoPhillips and Sunoco each received eight such citations, CITGO had two, and Exxon had one.<sup>112</sup>

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breaking Fines to BP (Oct. 30, 2009), available at [www.osha.gov/dep/bp/bp.html](http://www.osha.gov/dep/bp/bp.html).

<sup>105</sup> Joe Nocera, *Green Logo, But BP Is Old Oil*, N.Y. TIMES, Aug. 12, 2006, available at [select.nytimes.com/2006/08/12/business/worldbusiness/12nocera.html?\\_r=1](http://select.nytimes.com/2006/08/12/business/worldbusiness/12nocera.html?_r=1).

<sup>106</sup> Gary White, *US Sues BP over Prudhoe Bay Spill*, THE TELEGRAPH (Apr. 1, 2009), [www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/5091013/US-sues-BP-over-Prudhoe-Bay-oil-spill.html](http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/5091013/US-sues-BP-over-Prudhoe-Bay-oil-spill.html).

<sup>107</sup> Jill Burke, *BP Still Fighting Fines Stemming from '06 Oil Spills at Prudhoe Bay*, ALASKA DISPATCH, May 17, 2010, available at [alaskadispatch.com/dispatches/energy/5369-bp-still-fighting-fines-stemming-from-06-oil-spills-at-prudhoe-bay](http://alaskadispatch.com/dispatches/energy/5369-bp-still-fighting-fines-stemming-from-06-oil-spills-at-prudhoe-bay).

<sup>108</sup> *Hearing Before the S. Comm. on Energy & Natural Res., S. Hrg. 109-766*, at 6 (Sept. 12, 2006), available at [ftp.resource.org/gpo.gov/hearings/109s/32146.txt](http://ftp.resource.org/gpo.gov/hearings/109s/32146.txt) (statement of Vice Admiral Thomas Barrett, U.S. Coast Guard (retired), Administrator, Pipeline & Hazardous Safety Materials Safety Admin., Dep't of Transp.); see also Nelson Schwartz, *Can BP Bounce Back?* FORTUNE (Oct. 31, 2006), available at [money.cnn.com/magazines/fortune/fortune\\_archive/2006/10/16/8388595/index.htm](http://money.cnn.com/magazines/fortune/fortune_archive/2006/10/16/8388595/index.htm).

<sup>109</sup> Jim Morris & M.B. Pell, *Renegade Refiner: OSHA Says BP Has "Systemic Safety Problem,"* CENTER FOR PUBLIC INTEGRITY (May 17, 2010), [www.publicintegrity.org/articles/entry/2085/](http://www.publicintegrity.org/articles/entry/2085/).

<sup>110</sup> *Id.*; see also Pierre Thomas, *BP's Dismal Safety Record*, ABC NEWS (May 27, 2010), [abcnews.go.com/WN/bps-dismal-safety-record/story?id=10763042](http://abcnews.go.com/WN/bps-dismal-safety-record/story?id=10763042).

<sup>111</sup> Jim Morris & M.B. Pell, *supra* note 109.

<sup>112</sup> *The Role of the Interior Department in the Deepwater Horizon Disaster: Hearing Before the Subcomm. on Oversight & Investigations, H. Comm. on Energy & Commerce* (July 20, 2010), available at [www.youtube.com/watch?v=6bLA8tK3TjA&feature=relmfu](http://www.youtube.com/watch?v=6bLA8tK3TjA&feature=relmfu) (Rep. John Sullivan questioning BP CEO Tony Hayward.)

BP's safety track record outside the United States is similarly checkered. In 2000, BP's Grangemouth, Scotland, facility suffered three major and potentially life-threatening incidents.<sup>113</sup> Over a two-week period, BP's Grangemouth facility experienced a power distribution failure, leading to the emergency shutdown of the oil refinery, the rupture of a main steam pipe, and a fire in the refinery's fluidized catalytic cracker unit.<sup>114</sup> BP was convicted of criminal violations of the U.K. Health and Safety at Work Act for these events,<sup>115</sup> and it paid £1 million in fines.<sup>116</sup> The U.K. Health and Safety Executive, which investigated the incidents, attributed them to weaknesses in BP's safety management system, concluding that BP lacked a "strong, consistent overall strategy for major accident prevention."<sup>117</sup> The accidents were attributed to a tendency "to place relatively high emphasis on short-term benefits of cost and speed and to be readier to make compromises over longer-term issues like plant reliability."<sup>118</sup>

In 2003, BP's Forties Alpha platform in the North Sea suffered a gas line rupture. The Platform flooded with methane, and only fortunate weather conditions prevented an explosion.<sup>119</sup> BP admitted breaking the law by allowing pipes to corrode and paid a £200,000 fine.<sup>120</sup> Sounding themes from the 2000 U.K. incident, Deputy Offshore Installation Manager, Oberon Houston, testified during the investigation that "[t]he focus on controlling costs was acute at BP, to the point that it became a distraction. They just go after it with a ferocity that is mind-numbing and terrifying."<sup>121</sup> This 2003 near miss came on the heels not only of the Grangemouth incident described above, but also of a 1999 explosion and fire on another North Sea gas platform, the Exploration Bruce. In that earlier incident, BP confessed to violating health and safety regulations and received the maximum possible fine of £20,000.<sup>122</sup>

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<sup>113</sup> U.K. HEALTH & SAFETY EXEC., MAJOR INCIDENT INVESTIGATION REPORT: BP GRANGEMOUTH SCOTLAND (Aug. 18, 2003), available at [www.hse.gov.uk/comah/bpgrange/images/bprgrangemouth.pdf](http://www.hse.gov.uk/comah/bpgrange/images/bprgrangemouth.pdf).

<sup>114</sup> *Id.* at 4-6.

<sup>115</sup> *Id.* at 49-51.

<sup>116</sup> *Id.* at 1.

<sup>117</sup> *Id.* at 59.

<sup>118</sup> *Id.* at 63.

<sup>119</sup> Loren Steffy, *Quick Payouts BP's Goal*, HOUSTON CHRON. (Dec. 8, 2010), available at [www.chron.com/disp/story.mpl/business/energy/7330797.html](http://www.chron.com/disp/story.mpl/business/energy/7330797.html).

<sup>120</sup> *BP Fined over Offshore Gas Leak*, BBC NEWS (Nov. 16, 2004), available at [news.bbc.co.uk/2/hi/uk\\_news/scotland/4016921.stm](http://news.bbc.co.uk/2/hi/uk_news/scotland/4016921.stm).

<sup>121</sup> For a full description of this and BP's other serious safety breaches, see LOREN C. STEFFY, *DROWNING IN OIL: BP AND THE RECKLESS PURSUIT OF PROFIT* (2010).

<sup>122</sup> *Maximum Fine for Oil Firm over Gas Explosion*, THE HERALD (Glasgow) (May 11, 1999).

Over the decade leading up to the Gulf disaster BP suffered one industrial safety failure after another. Despite repeated proclamations about “renewing a commitment to safety” and “focusing like a laser on safety,” BP’s track record remained poor. All of the government investigations into these varied disasters sounded the same theme: BP had an inadequate safety culture. The company was unduly focused on cost-cutting, even at the expense of safety. The President’s Commission Report also struck this chord, concluding, “BP does not have consistent and reliable risk-management processes—and thus has been unable to meet its professed commitment to safety. BP’s safety lapses have been chronic.” BP has the dubious distinction of having caused the worst accidental marine oil spill ever, the worst oil spill in the history of the North Slope, and the worst U.S. refinery disaster in decades.

Overall, the straightforward answer to the question of how this disaster happened is that BP put profit before safety. In a June 14, 2010, letter to Tony Hayward, then-Chair of the House Committee on Energy and Commerce, Henry Waxman, along with Michigan Representative Bart Stupak, detailed five key choices<sup>123</sup> BP made in the days leading up to the disaster that involved cutting corners, choosing cheaper but more risky drilling methods, or otherwise “increas[ing] the dangers of a catastrophic well failure.”<sup>124</sup> These individual cost-cutting choices were part of a larger pattern. As Representative Edward Markey pointed out, over the three years prior to the spill, BP invested \$39 billion to explore for new oil and gas, while investing only a “paltry” \$20 million per year in safety, accident prevention, and spill response research.<sup>125</sup> BP did, however, invest heavily in a public relations campaign intended to cloak the company in an aura of environmental responsibility.

The American Petroleum Institute (API) continues to insist that the BP disaster was an “isolated incident.”<sup>126</sup> The “fact” that there has not

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<sup>123</sup> These choices were “(1) the decision to use a well design with few barriers to gas flow; (2) the failure to use a sufficient number of ‘centralizers’ to prevent channeling during the cement process; (3) the failure to run a cement bond log to evaluate the effectiveness of the cement job; (4) the failure to circulate potentially gas-bearing drilling muds out of the well; and (5) the failure to secure the wellhead with a lockdown sleeve before allowing pressure on the seal from below. The common feature of these five decisions is that they posed a trade-off between cost and well safety.” Letter from Reps. Henry A. Waxman and Bart Stupak to Tony Hayward, Chief Executive Officer of BP (June 14, 2010), *available at* [online.wsj.com/public/resources/documents/WSJ-20100614-LetterToHayward.pdf](http://online.wsj.com/public/resources/documents/WSJ-20100614-LetterToHayward.pdf).

<sup>124</sup> *Id.*

<sup>125</sup> *Drilling Down on America’s Energy Future, Safety Security and Clean Energy: Hearing Before Subcomm. on Energy & Env’t, H. Comm. on Energy & Commerce* (June 15, 2010) (statement of Rep. Edward J. Markey, Chairman), *available at* [democrats.energycommerce.house.gov/documents/20100615/Markey.Statement.ee.06.15.2010.pdf](http://democrats.energycommerce.house.gov/documents/20100615/Markey.Statement.ee.06.15.2010.pdf).

<sup>126</sup> Jonathan Tilove, *Oil Spokesman Calls for More Drilling*, NOLA.COM (Jan. 5, 2011),

been a single major blowout from American operations in the Gulf of Mexico in decades is frequently offered to buttress BP's repeated claims that the oil spill was somehow unforeseeable<sup>127</sup> and thus outside the realm of reasonable predictions.<sup>128</sup> Yet, blowouts are not actually that rare,<sup>129</sup> and near misses are even more common.<sup>130</sup> Between 2006 and 2010, regulators tabulated twenty-five blowouts in the Gulf of Mexico.<sup>131</sup> During that same time period, there were also sixty-eight spills of greater than fifty barrels (2100 gallons).<sup>132</sup>

The oil industry has made a concerted effort to keep the focus away from a broader analysis of offshore drilling, one that goes beyond BP or the specifics of the Macondo disaster. Given the tremendous sway that the API wields over the regulatory decisionmaking regarding offshore drilling, the industry lobbying group has a vested interest in diverting attention from statutory flaws, lack of agency resources, and the intimate relationship that regulators developed with the oil industry. These factors all combined to lull regulators into a state of quiescence, if not complacency. Lack of funding, combined with a revolving door between industry and the regulated community, meant that regulators too often viewed their task through the lens of industry<sup>133</sup> rather than from the perspective of the public whose interests the agency was sworn to protect. The statutory regime, which gave MMS the dual (and conflicting) tasks of promoting and regulating offshore drilling, furthered

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[www.nola.com/business/index.ssf/2011/01/oil\\_spokesman\\_calls\\_for\\_more\\_d.html](http://www.nola.com/business/index.ssf/2011/01/oil_spokesman_calls_for_more_d.html).

<sup>127</sup> See, e.g., Ben Geman, *BP Chief Calls Failure of Blowout Preventer "Unprecedented,"* THE HILL (May 3, 2010, 9:28 AM ET), [thehill.com/blogs/e2-wire/677-e2-wire/95577-bp-ceo-calls-failure-of-blowout-preventer-unprecedented](http://thehill.com/blogs/e2-wire/677-e2-wire/95577-bp-ceo-calls-failure-of-blowout-preventer-unprecedented) (quoting BP CEO Tony Hayward as claiming, "This is an unprecedented accident in terms of the failure of the blowout preventer. . . . It is the ultimate safety system on any rig and there is no precedent for them failing.").

<sup>128</sup> See, e.g., *Hearing Before the Subcommittee on Energy and Mineral Resources of the House Committee on Natural Resources*, 111th Cong. (2010) (testimony of Erik Milito, Upstream Director, American Petroleum Institute).

<sup>129</sup> See, e.g., Les Blumenthal, *Decade-Old Report Cited Failure of Oil Rig Safety System*, MCCLATCHY, (Apr. 30, 2010), [www.mcclatchydc.com/2010/04/30/93250/us-report-found-failure-of-offshore.html](http://www.mcclatchydc.com/2010/04/30/93250/us-report-found-failure-of-offshore.html).

<sup>130</sup> The International Association of Drillers has compiled a litany of "near miss" incidents. See, e.g., *Alerts*, INT'L ASS'N OF DRILLING CONTRACTORS, [www.iadc.org/alerts.htm](http://www.iadc.org/alerts.htm) (last visited June 28, 2011).

<sup>131</sup> BOEMRE, *Loss of Well Control: Statistics and Summaries 2006-2010*, [www.boemre.gov/incidents/blowouts.htm](http://www.boemre.gov/incidents/blowouts.htm) (last visited June 28, 2011).

<sup>132</sup> BOEMRE, *Spills, Statistics and Summaries 1996-2011*, [www.boemre.gov/incidents/spills1996-2011.htm](http://www.boemre.gov/incidents/spills1996-2011.htm) (last visited June 28, 2011). In 2005 alone, there were forty-nine such spills. *Id.*

<sup>133</sup> Jason DeParle, *Minerals Service Had a Mandate to Produce Results*, N.Y. TIMES, Aug. 7, 2010, at A1, available at [www.nytimes.com/2010/08/08/us/08mms.html](http://www.nytimes.com/2010/08/08/us/08mms.html) (quoting Hammond Eve, former director of MMS's environmental division, characterizing the agency as "pro-industry to the point of being blind").

this tendency toward role confusion and outright regulatory capture. The President's Commission Report highlighted this aspect of the disaster: "On many . . . critical matters, the federal regulations either failed to account for the particular challenges of deepwater drilling or were silent altogether."<sup>134</sup>

It would be a mistake to embrace the "BP is a bad actor" theory as the sole cause of the Gulf Oil Spill. Without diminishing BP's culpability, it is clear that there are major structural problems associated with the way the government approaches the task of regulating offshore drilling. These structural problems, in turn, created a context in which it was possible for BP to make those poor choices. That a private company might be willing to trade off safety in favor of cost-savings ought not be surprising—after all, it is precisely this tendency of private actors to overvalue costs to themselves and undervalue public safety and goods that is one of the primary justifications of regulation in the first place. The dysfunction runs much deeper than a single risk-taking company. One must also ask, Where were the regulators?

### III. THE COMPLEX EXPLANATION: A REGULATORY BACKDROP CREATED THE CONDITIONS FOR DISASTER TO OCCUR

The risks linked to the ever-more-challenging environments associated with a trend toward deeper and deeper drilling are immense. Machinery must withstand up to 15,000 psi of pressure,<sup>135</sup> the frigid cold of the water, and the intense heat of the oil roiling up out of the earth at 300-plus degrees Fahrenheit.<sup>136</sup> The temperature gradient across the equipment can be significant. Indeed, as one Shell executive said, "The deepwater environment is unforgiving, the challenges are immense and the deeper you go, the more difficult it gets."<sup>137</sup> The inhospitable nature of the deep-sea environment necessitates that all the work be done by remotely controlled robotic subs. Complexity piles on top of complexity.

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<sup>134</sup> NAT'L COMM'N REPORT, *supra* note 15, at 225.

<sup>135</sup> A 2006 WEST Engineering Services report noted that MMS is aware of some exploration drilling prospects where reservoir conditions are as high as 28,000 psi. However, there are currently no blowout preventers capable of withstanding more than 15,000 psi. WEST ENG'G SERVS., ASSESS THE ACCEPTABILITY AND SAFETY OF USING EQUIPMENT, PARTICULARLY BOP AND WELLHEAD COMPONENTS, AT PRESSURES IN EXCESS OF RATED WORKING PRESSURE 5 (2006), *available at* [www.boemre.gov/tarprojects/566/566AA.pdf](http://www.boemre.gov/tarprojects/566/566AA.pdf) [hereinafter ASSESS THE ACCEPTABILITY AND SAFETY].

<sup>136</sup> WEST ENG'G SERVS., HIGH TEMPERATURE ELASTOMER STUDY FOR MMS 6 (June 2, 2009), *available at* [www.boemre.gov/tarprojects/621/AA.pdf](http://www.boemre.gov/tarprojects/621/AA.pdf).

<sup>137</sup> LEHNER & DEANS, *supra* note 40, at 88 (quoting a 2009 speech by Matthias Bichsel, director for projects and technology at Shell).

These technical challenges make deepwater operations very expensive to develop, but the high flow rates of the wells and the size of the fields mean that successful wells can be immensely profitable. As the risk-reward profile increased, regulation and oversight did not keep up with drilling advances. Instead, MMS came to rely more and more on API as the de facto regulator for offshore drilling.

#### A. OVERVIEW OF THE STATUTORY REGIMES (OCSLA AND NEPA)

The key statutes governing offshore oil production are the Outer Continental Shelf Lands Act (OCSLA)<sup>138</sup> and the National Environmental Policy Act (NEPA).<sup>139</sup> As the agency charged with overseeing offshore development, MMS's programmatic and regulatory decisions had to comply with both acts.

Under OCSLA,<sup>140</sup> Congress has charged the Department of Interior with overseeing the "expeditious and orderly development [of offshore oil resources], subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs."<sup>141</sup> Oil and gas development activities managed under the OCSLA occur in four distinct stages: (1) development of a five-year leasing plan,<sup>142</sup> (2) issuance of oil and gas leases (often called the lease-sale),<sup>143</sup> (3) approval of a lessee's exploration plans,<sup>144</sup> and (4) approval of a lessee's development and production plans.<sup>145</sup> This tiered structure is intended to allow the agency to start with broad-based planning and then move "to an increasingly narrower focus as actual development grows more imminent."<sup>146</sup>

At each stage of the process, the agency is expected to conduct a careful examination of the environmental impact of the proposed activities,<sup>147</sup> satisfying duties under both the OCSLA and NEPA. At every stage of federal agency decision-making related to offshore oil

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<sup>138</sup> Outer Continental Shelf Lands Act (OSCLA), 43 U.S.C.A. § 1331 et seq. (Westlaw 2011).

<sup>139</sup> National Environmental Policy Act (NEPA), 42 U.S.C.A. § 4321 et seq. (Westlaw 2011).

<sup>140</sup> The OCSLA defines the "outer Continental Shelf," as "all submerged lands lying seaward and outside of the area of land [under state control] and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control." OCSLA, 43 U.S.C.A. § 1331(a) (Westlaw 2011).

<sup>141</sup> OCSLA, 43 U.S.C.A. § 1332(3) (Westlaw 2011).

<sup>142</sup> OCSLA, 43 U.S.C.A. § 1344 (Westlaw 2011).

<sup>143</sup> OCSLA, 43 U.S.C.A. §§ 1337, 1345 (Westlaw 2011).

<sup>144</sup> OCSLA, 43 U.S.C.A. § 1340 (Westlaw 2011).

<sup>145</sup> OCSLA, 43 U.S.C.A. § 1351 (Westlaw 2011).

<sup>146</sup> *California v. Watt*, 668 F.2d 1290, 1295-1300 (D.C. Cir. 1981) (per curiam).

<sup>147</sup> OCSLA, 43 U.S.C.A § 1344 (Westlaw).

exploration and development, the agency must determine if the action has the potential to affect the quality of the human environment. To do so, it must engage in one of three levels of NEPA analysis:<sup>148</sup> 1) prepare an Environmental Impact Statement (EIS) when the agency determines that the proposed action has the potential for significant environmental impacts; 2) prepare an Environmental Assessment (EA) to determine whether the agency should make a Finding of No Significant Impact (FONSI) or should prepare an EIS; or 3) apply a Categorical Exclusion (CE) when the agency determines that the activity does not, in the absence of extraordinary circumstances, result in individually or cumulatively significant environmental effects.<sup>149</sup> While NEPA requires that the agency engage in environmental analysis, it provides no substantive standards on its own; instead, those come from the OCSLA.

The OCSLA directs the Department of Interior to consider “the potential impact of oil and gas exploration on other resource values of the Outer Continental Shelf and the marine, coastal, and human environments,”<sup>150</sup> and to balance “between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”<sup>151</sup> However, the statute is silent as to how this balance should be struck. Unlike some environmental statutes, OCSLA does not specify the levels of protection the agency must deliver, either with regard to human health or environmental protection.<sup>152</sup> Nor does the OCSLA set a baseline about the kinds of safety technology the agency must require of lessees.

The agency was left to exercise a very broad delegation of regulatory authority as it saw fit. However, MMS consistently allowed lessees to replace OCSLA’s site-specific environmental evaluations with references to more general, regional evaluations,<sup>153</sup> and it categorically

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<sup>148</sup> DOI’s Departmental Manual documents policies and procedures applicable to the Department, *available at* [www.doi.gov/app%5FDm/](http://www.doi.gov/app%5FDm/). The Manual sets forth requirements specific to MMS NEPA implementation. Departmental Manual, Part 516, Chapter 15, Managing the NEPA Process-MMS, *available at* [www.blm.gov/wo/st/en/prog/planning/nepa/webguide/departamental\\_manual/516\\_dm\\_chapter\\_15.html](http://www.blm.gov/wo/st/en/prog/planning/nepa/webguide/departamental_manual/516_dm_chapter_15.html).

<sup>149</sup> 40 C.F.R. § 1507.3 (Westlaw 2011).

<sup>150</sup> OCSLA, 43 U.S.C.A. § 1344(a)(1) (Westlaw 2011).

<sup>151</sup> OCSLA, 43 U.S.C.A. §§ 1344 (a)(1)-(3) (Westlaw 2011).

<sup>152</sup> *Cf.* 42 U.S.C.A. § 7409(b)(1) (Westlaw 2011) (Clean Air Act provision requiring national primary ambient air quality standards to allow “an adequate margin of safety . . . requisite to protect the public health”). For a lengthy discussion of this point, *see* ALYSON FLOURNOY ET AL., CTR. FOR PROGRESSIVE REFORM, REGULATORY BLOWOUT: HOW REGULATORY FAILURES MADE THE BP DISASTER POSSIBLE, AND HOW THE SYSTEM CAN BE FIXED TO AVOID A RECURRENCE (2010), *available at* [www.progressivereform.org/articles/BP\\_Reg\\_Blowout\\_1007.pdf](http://www.progressivereform.org/articles/BP_Reg_Blowout_1007.pdf).

<sup>153</sup> MINERALS MGMT. SERV., INFORMATION REQUIREMENTS FOR EXPLORATION PLANS AND DEVELOPMENT OPERATIONS COORDINATION DOCUMENTS 17-19, NTL No. 2008-G04 (Apr. 1,

exempted large swaths of the Gulf of Mexico from NEPA analysis.<sup>154</sup> Further, because MMS willingly accepted industry representations that a spill was “unlikely”<sup>155</sup> and the resulting consequences “minimal,”<sup>156</sup> MMS accepted a role as cheerleader and booster for the drilling industry, consistently choosing oil production over environmental protection. MMS made these choices even though the Coast Guard warned that oil producers were not developing safety technologies to match their rapidly expanding extraction abilities.<sup>157</sup> Nevertheless, the agency routinely accepted industry recommendations about the level and kinds of safety technologies and techniques that would be sufficient to protect the environment.

Two problems arose because of MMS’s *laissez faire* approach to regulating, both of which directly contributed to the Deepwater Horizon disaster. The first problem surrounds the agency’s failure to adequately specify the minimum standards for blowout preventers to ensure that these devices serve as a critical last defense against disaster. The second problem involves the agency’s failure to require adequate spill response planning. After demonstrating how both problems are rooted in a flawed statutory mandate, this Part will conclude by describing the role that non-statutory agency dynamics played in creating the conditions for disaster, namely the agency’s overly cozy relationship with industry and the agency’s lack of adequate funding.

*i. Blowout Preventers as an Example of Regulatory Failure*

One of the major risks posed by oil exploration is the risk of a blowout—the uncontrolled flow of oil stemming from a loss of control of a well. Blowouts can occur during any phase of developing a well site, from exploratory drilling to find a well site, to the last act of sealing a well at exhaustion. They typically occur when improperly balanced well pressures result in sudden, uncontrolled releases of fluids from a wellhead or wellbore.<sup>158</sup>

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2008), [www.gomr.boemre.gov/homepg/regulate/regs/ntls/2008NTLs/08-g04.pdf](http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2008NTLs/08-g04.pdf).

<sup>154</sup> MINERALS MGMT. SERV., STRATEGY FOR POSTLEASE NEPA COMPLIANCE IN DEEPWATER AREAS OF THE GULF OF MEXICO 1-2, available at [www.gomr.boemre.gov/homepg/regulate/environ/ea\\_grid/NEPADWSTRATEGY.PDF](http://www.gomr.boemre.gov/homepg/regulate/environ/ea_grid/NEPADWSTRATEGY.PDF) (last visited June 28, 2011). For an analysis of how MMS’s lack of NEPA rigor contributed to the disaster, see Houck, *supra* note 4.

<sup>155</sup> See *infra* text accompanying notes 198-200.

<sup>156</sup> *Id.*

<sup>157</sup> U.S. COAST GUARD, 2002 SPILL OF NATIONAL SIGNIFICANCE AFTER ACTION REPORT 22 (Dec. 13, 2002), available at [www.uscg.mil/history/docs/2002SONSAARfinalReport.pdf](http://www.uscg.mil/history/docs/2002SONSAARfinalReport.pdf).

<sup>158</sup> See BLOCKS 158 & 202, *supra* note 99.

The Deepwater Horizon was considered among the most technologically advanced drilling platforms in the world.<sup>159</sup> Yet this advanced technology—including its blowout protector—failed to prevent a torrent of oil from being unleashed into the Gulf. As detailed above, a series of poor choices on the Deepwater Horizon was the proximate cause of the blowout preventer's failure. However, a full understanding of what went wrong must also examine the agency's regulation, or lack thereof, of this critical safety device that is supposed to perform flawlessly regardless of drilling conditions.

A blowout preventer is a device that is supposed to activate automatically to seal a well in response to a pressure surge, thereby preventing a blowout.<sup>160</sup> It is composed of a series of rams that are intended to cut the drilling pipe and seal the well in case of loss of control.<sup>161</sup> As such, these devices are critical safety equipment for any drilling operation. The basic technology was developed about a century ago.<sup>162</sup> Since then, the materials used to construct blowout preventers have become more sophisticated, but the basic idea has not changed substantially.<sup>163</sup>

The greater pressures and temperatures encountered during drilling in ultra-deep waters challenge the integrity of blowout preventers.<sup>164</sup> Moreover, the temperature and pressure that a blowout preventer will be

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<sup>159</sup> See, e.g., Letter from Senator Benjamin Cardin to President Barak Obama (Apr. 20, 2010). Senator Robert Menendez characterized it as "a rig so technologically advanced it could not spill." See also *Hearing to Review Current Issues Related to Offshore Oil and Gas Development Before S. Comm. on Energy & Natural Res.* (May 16, 2010), available at [energy.senate.gov/public/index.cfm?Fuseaction=Hearings.LiveStream&Hearing\\_id=3f911465-0f1b-5a31-7d0d-138b354e1a60](http://energy.senate.gov/public/index.cfm?Fuseaction=Hearings.LiveStream&Hearing_id=3f911465-0f1b-5a31-7d0d-138b354e1a60). Just a year earlier, Transocean, the rig's owner, had announced that the Deepwater Horizon had drilled the deepest well ever. *Deepwater Horizon Drills World's Deepest Oil & Gas Well*, TRANSOCEAN (2011), [www.deepwater.com/fw/main/IDeepwater-Horizon-i-Drills-Worlds-Deepest-Oil-and-Gas-Well-419C151.html](http://www.deepwater.com/fw/main/IDeepwater-Horizon-i-Drills-Worlds-Deepest-Oil-and-Gas-Well-419C151.html).

<sup>160</sup> Melvyn (Mel) F. Whitby, *Evolution of a Subsea BOP*, DRILLING CONTRACTOR (May 2007), at 36, available at [www.drillingcontractor.org/dcp/dc-mayjune07/DC\\_May07\\_BOP.pdf](http://www.drillingcontractor.org/dcp/dc-mayjune07/DC_May07_BOP.pdf) (describing blowout preventers as "the main barrier protecting human life, capital equipment and the environment" in cases of emergency).

<sup>161</sup> The Blowout Preventer attaches to the subsea wellhead. The key components for purposes of this analysis are the Blind Shear Rams, which are designed to sever drill pipe that might be in the wellbore and seal the wellbore in the event of the loss of well control. Although the blowout preventer also has variable bore pipe rams to close and seal around drill pipe, and casing shear rams to sever large diameter casings, the blind shear rams are the only set of rams designed to cut drill pipe and seal the well in the event of a blowout. See DET NORSKE VERITAS, *supra* note 72, at 38 (providing detailed description of the blowout preventer that failed in the Deepwater Horizon disaster).

<sup>162</sup> Whitby, *supra* note 160.

<sup>163</sup> *Id.*

<sup>164</sup> WEST ENG'G SERVS., *supra* note 136, at 6.

exposed to varies based on the specifics of the well conditions and the flow rate.<sup>165</sup> Despite tests showing that blowout protection devices fail frequently,<sup>166</sup> MMS has not established minimum capabilities for blowout preventers or testing protocols, nor has it required additional safety devices like acoustic triggers that allow remote-control activation of a blowout preventer. These last-ditch safety devices are required in Norway and Brazil.<sup>167</sup> As a result, there is no regulatory standard for assessing the heat tolerance limits of a blowout preventer.<sup>168</sup> There are suggested industry testing protocols created by API, but they do not reflect real-world conditions,<sup>169</sup> and these kinds of assessments are not done routinely.<sup>170</sup>

### 1. Lack of Standards for Blowout Preventers

After the blowout, BP CEO Tony Hayward said of blowout preventers in general: “It’s unprecedented for it to fail.”<sup>171</sup> Yet, the problem with blowout preventers is not something that the industry knew only in retrospect after the Deepwater Horizon blowout preventer failed. In 1999, a MMS sponsored study identified 117 blowout preventer failures in a two-year period.<sup>172</sup> More than half of the blowout preventers were designated “safety critical failures,” meaning each occurred when a blowout preventer was installed on the rig and might have been needed in an emergency.<sup>173</sup> A few years later, an industry-led study documented that during safety testing in the Gulf of Mexico, blowout preventers failed sixty-two times between 2004 and 2006.<sup>174</sup> Moreover, a 2009 reliability study of blowout preventers deployed in the

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<sup>165</sup> ASSESS THE ACCEPTABILITY AND SAFETY, *supra* note 135.

<sup>166</sup> See, e.g., Mark Clayton, *Studies Suggest MMS Knew Blowout Preventers Had “Critical” Flaws*, CHRISTIAN SCIENCE MONITOR (June 17, 2010), available at [www.csmonitor.com/USA/2010/0617/Studies-suggest-MMS-knew-blowout-preventers-had-critical-flaws](http://www.csmonitor.com/USA/2010/0617/Studies-suggest-MMS-knew-blowout-preventers-had-critical-flaws).

<sup>167</sup> Russell Gold, Ben Casselman & Guy Chazan, *Leaking Oil Well Lacked Safeguard Device*, WALL ST. J., Apr. 28, 2010, available at [online.wsj.com/article/SB10001424052748704423504575212031417936798.html](http://online.wsj.com/article/SB10001424052748704423504575212031417936798.html).

<sup>168</sup> WEST ENG’G SERVS., *supra* note 136.

<sup>169</sup> *Id.* at 23.

<sup>170</sup> *Id.* at 16-17.

<sup>171</sup> See *Oil Blowout Preventers Known to Fail*, ASSOCIATED PRESS (May 8, 2010), available at [www.cbsnews.com/stories/2010/05/08/national/main6469368.shtml](http://www.cbsnews.com/stories/2010/05/08/national/main6469368.shtml).

<sup>172</sup> SINTEF INDUS. MGMT., RELIABILITY OF SUBSEA BOP SYSTEMS FOR DEEPWATER APPLICATION, PHASE II DW 33-36 (Nov. 7, 1999), available at [www.boemre.gov/tarprojects/319/319aa.pdf](http://www.boemre.gov/tarprojects/319/319aa.pdf) [hereinafter RELIABILITY OF SUBSEA BOP].

<sup>173</sup> *Id.* at 85.

<sup>174</sup> ASSESS THE ACCEPTABILITY AND SAFETY, *supra* note 135.

Gulf of Mexico concluded that during that time period, there were four “safety critical failures” of blowout preventers, meaning equipment malfunctions serious enough to have allowed “an uncontrolled release” of crude oil from the well bore.<sup>175</sup> Analyzing this data, the Christian Science Monitor concluded that there was one “safety critical failure” for every 59.5 wells drilled in the test period, and one per 9.5 rigs.<sup>176</sup> Additionally, MMS issued a safety alert in 2005 warning that deepwater operations had experienced a significant number of incidents in which the components of the blowout preventer stack disconnected, a situation that has the potential to cause serious well-control issues.<sup>177</sup> This risk was particularly acute if the disconnect occurred during drilling of a high-pressure well,<sup>178</sup> as had happened with BP’s Thunder Horse well in 2003.<sup>179</sup>

This series of near misses in the Gulf of Mexico ought to have raised both public and private alarm bells.<sup>180</sup> If nothing else, the 2003 Thunder Horse blowout ought to have put these issues squarely on BP’s and the agency’s horizon. Indeed, in response to the 2003 Thunder Horse incident, an NOAA modeler wrote that the “potential for a deep well blowout was on everyone’s mind”<sup>181</sup> because it was clear that a “[l]oss of well containment would result in more oil spilled in a week than occurred during the whole of the T/V Exxon Valdez oil spill.”<sup>182</sup> The NOAA modeling done after the Thunder Horse incident assumed a flow rate of 100,000 barrels a day from a possible spill.<sup>183</sup> BP’s own internal

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<sup>175</sup> Mark Clayton, *Before BP Oil Spill, Big Oil-led Study Urged Feds to Cut Safety Testing*, CHRISTIAN SCIENCE MONITOR (June 2, 2010), available at [www.csmonitor.com/USA/2010/0602/Before-BP-oil-spill-Big-Oil-led-study-urged-feds-to-cut-safety-testing](http://www.csmonitor.com/USA/2010/0602/Before-BP-oil-spill-Big-Oil-led-study-urged-feds-to-cut-safety-testing).

<sup>176</sup> *Id.*

<sup>177</sup> MINERALS MGMT. SERV., SAFETY ALERT 231, HUMAN ENGINEERING FACTORS RESULT IN INCREASING NUMBERS OF RISER DISCONNECTS (May 31, 2005), available at [www.gomr.boemre.gov/homepg/offshore/safety/safealt/SA\\_231.pdf](http://www.gomr.boemre.gov/homepg/offshore/safety/safealt/SA_231.pdf); see also DAVID DYKES, DAVID TROCQUET & RANDALL JOSEY, MINERALS MGMT. SERV., INVESTIGATION OF RISER DISCONNECT AND BLOWOUT MISSISSIPPI BLOCK CANYON 538, OCS-G 16614 WELL #2 (Feb. 28, 2000), available at [www.gomr.boemre.gov/PDFs/2001/2001-005.pdf](http://www.gomr.boemre.gov/PDFs/2001/2001-005.pdf)

<sup>178</sup> ASSESS THE ACCEPTABILITY AND SAFETY, *supra* note 135, at 5.

<sup>179</sup> BEEGLE-KRAUSE & LYNCH, *supra* note 41. Fortunately, the Thunder Horse blowout preventer did its job, and the release from the well was limited to the release of 2450 barrels (110,250 gallons) of synthetic drilling mud. *Id.* at 2.

<sup>180</sup> Ben Casselman & Guy Chazan, *Disaster Plans Lacking at Deep Rigs*, WALL ST. J., May 18, 2010, at A1, available at [online.wsj.com/article/SB10001424052748703315404575250591376735052.html](http://online.wsj.com/article/SB10001424052748703315404575250591376735052.html) (documenting how safety technology was overwhelmed by the new challenges of operating at ever-greater depths).

<sup>181</sup> BEEGLE-KRAUSE & LYNCH, *supra* note 41.

<sup>182</sup> *Id.*

<sup>183</sup> *Id.* at app. B.

investigation identified “what should be done if well control were lost” as a key question in its incident response.<sup>184</sup> Even though the scale of the Deepwater Horizon disaster was unprecedented, the possibility of a large spill stemming from a blowout of a deepwater well was plainly in view.

The failure to learn from the Thunder Horse near-catastrophe supports both the straightforward and the complex explanations for the Deepwater Horizon disaster. Of all entities, BP should have internalized lessons from this incident. It should have developed a plan for how to respond to loss of control of a deepwater well. Instead, BP published a series of articles focused on leadership and communications lessons (none of which it apparently followed in the wake of the Deepwater Horizon blowout).<sup>185</sup>

Over the years that ultra-deep drilling occurred, two key problems with blowout preventers were identified over and over: the inability of a blowout preventer to withstand the intense pressure gradients at greater depths, and the inability of the shear rams to cut the thicker pipes being used in ultra-deepwater drilling. Both kinds of problems were implicated in the Deepwater Horizon disaster.

A 2004 joint industry-MMS study suggested that the use of thicker drilling pipes in ultra-deep water made the shear ram component of blowout preventers increasingly prone to failure in deep water.<sup>186</sup> Along the same lines, a 2006 study noted that there were neither MMS regulations nor API standards specifying the external pressure that blowout preventers must be able to withstand.<sup>187</sup> The study reported that “the maximum allowable external pressure is never published and indeed may not even be known by the manufacturer.”<sup>188</sup> If differential pressure is applied to a component not designed to withstand it, there could be serious consequences for well control.<sup>189</sup> The report cautioned: “the deeper the water the greater the risk,”<sup>190</sup> and observed that the fact that

<sup>184</sup> Karen Bybee, *Thunder Horse Drilling-Riser Break—The Road to Recovery* 48, 49-59, J. SOC’Y PETROLEUM ENG’RS (Apr. 2005), available at [www.spe.org/jpt/print/archives/2005/04/JPT2005\\_04\\_ODC\\_focus.pdf](http://www.spe.org/jpt/print/archives/2005/04/JPT2005_04_ODC_focus.pdf).

<sup>185</sup> Bill Kirton, Gary Wulf & Bill Henderson, *Thunder Horse Drilling-Riser Break—The Road to Recovery*, SPE 90628, SPE ANNUAL TECHNICAL CONFERENCE & EXHIBITION (Sept. 2004); M.T. Crichton, K. Lauche & R. Flin, *Incident Command Skills in the Management of an Oil Industry Drilling Incident: A Case Study*, 13 J. CONTINGENCIES & CRISIS MGMT. 116 (2005).

<sup>186</sup> WEST ENG’G SERVS., SHEAR RAM CAPABILITIES STUDY (2004), available at [www.boemre.gov/tarprojects/](http://www.boemre.gov/tarprojects/); see also Casselman & Chazan, *supra* note 180, at A1 (discussing this report).

<sup>187</sup> ASSESS THE ACCEPTABILITY AND SAFETY, *supra* note 135, at 36.

<sup>188</sup> *Id.*

<sup>189</sup> *Id.*

<sup>190</sup> *Id.*

this kind of pressure problem had, to date, not caused massive leaks could only be ascribed to industry's good fortune.<sup>191</sup> One problem that has featured prominently in the post-disaster narrative has been the inadequate pressure tests done on the Macondo well the day of the explosion. The lack of vigilance about pressure levels at the Macondo well, coupled with the lack of knowledge about the performance of blowout preventers under varying external pressure levels, was a recipe for disaster.

As Homeland Security Head Janet Napolitano testified before the Senate Homeland Security Committee, all of the spill response plans were based on the "clear . . . assumption that a [blowout preventer] would never fail."<sup>192</sup>

## 2. Lack of Regulation of Shearing Capacity

It seems a basic proposition that the blowout preventer, to deserve that name, must be capable of cutting the pipes being used in the drilling process. MMS issued a 2003 regulation purporting to require this capability by requiring rig operators to certify that their shear rams "are capable of shearing the drill pipe in the hole under maximum anticipated surface pressures."<sup>193</sup>

The 2004 Industry-MMS study posed the question whether, under the most demanding conditions, the blowout preventer installed on a given rig could shear the drill pipes used in its particular drilling program.<sup>194</sup> It also sought to determine the pressures under which the ram shears could deliver that performance.<sup>195</sup>

Given that the shear rams might be a drilling operation's last line of defense for safety and environmental protection, one might expect this question to have been resolved satisfactorily before ultra-deepwater

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<sup>191</sup> *Id.*

<sup>192</sup> *Gulf Coast Catastrophe: Assessing the Nation's Response to the Deepwater Horizon Oil Spill: Hearing Before the S. Comm. on Homeland Sec. & Governmental Affairs* (May 17, 2010), available at [hsgac.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing\\_ID=393fed6e-f565-4964-a0c7-a2b7a1728f4c](http://hsgac.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=393fed6e-f565-4964-a0c7-a2b7a1728f4c) (testimony of Janet Napolitano in response to question from Sen. Joe Lieberman).

<sup>193</sup> See 30 C.F.R. § 250.416(e) (Westlaw 2011) (requiring diverter and BOP descriptions to include information that shows the blind-shear rams installed in the BOP stack (both surface and subsea stacks) are capable of shearing any drill pipe in the hole under maximum anticipated surface pressure). The responsibility to assure that the BOP shear rams can reliably shear the drill pipe in the particular operational conditions thus rests wholly with the operator—the agency sets no technical specifications for kinds of equipment to be used at particular depths.

<sup>194</sup> WEST ENG'G SERVS., *supra* note 186.

<sup>195</sup> *Id.* at 1-4.

drilling commenced. Indeed, a 1999 MMS study recommended that regulations require that safety testing of blowout preventers include testing with diameters reflecting all the sizes of pipe in use.<sup>196</sup> A decade later that basic recommendation had yet to be implemented. Instead, responding to industry requests, MMS actually proposed changing the regulations to reduce the kinds and frequency of testing and planning it required.<sup>197</sup> As Rep. Bart Stupak noted at a House Oversight Hearing Investigating the Role of the Department of Interior in the Deepwater Horizon Disaster, the agency regulations finalized in 2003 did not require more redundancy and better backup systems for blowout preventers, despite multiple consultant reports recommending these technological improvements.<sup>198</sup> Indeed, the 2003 regulations did not even require regular testing of backup systems.<sup>199</sup>

MMS did not issue testing protocols for determining shear capability, nor did it specify minimum equipment standards or requirements. As a result, manufacturers used widely divergent criteria for reporting of shearing capabilities,<sup>200</sup> making comparisons and verification difficult. In the 2004 study, only three of fourteen newer deep-water drilling rigs were actually able to shear pipe at their

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<sup>196</sup> RELIABILITY OF SUBSEA BOP, *supra* note 172.

<sup>197</sup> MMS took this step even though industry consultants had been advising for years that testing increased the reliability of blowout preventers. MICHAEL E. MONTGOMERY, WEST ENG'G SERVS., TESTING IMPROVES SURFACE BOP EQUIPMENT RELIABILITY (1993), *available at* [www.westengineer.com/publication/bop-testing.pdf](http://www.westengineer.com/publication/bop-testing.pdf). The first relaxation in testing regimens came at the same time that MMS was commissioning studies to investigate the safety or lack thereof of blowout preventers. *See* RELIABILITY OF SUBSEA BOP, *supra* note 172 (extensively referencing Phase I of the report, which was issued in 1997). Despite the conclusions its consultants were providing about the need for inspections, in 1997 MMS proposed doubling the time between required blowout preventer tests (to two weeks). Minerals Mgmt. Serv., Blowout Preventer (BOP) Testing Requirements for Drilling and Completion Operations, 62 Fed. Reg. 37,819 (proposed July 15, 1997), *available at* [www.boemre.gov/federalregister/PDFs/BOPTesting.PDF](http://www.boemre.gov/federalregister/PDFs/BOPTesting.PDF). This rule was finalized the next year. *See* MINERALS MGMT. SERV., Blowout Preventer (BOP) Testing Requirements for Drilling and Completion Operations, 63 Fed. Reg. 29,605 (June 1, 1998) (codified at 30 C.F.R. pt. 250), *available at* [www.boemre.gov/federalregister/PDFs/Bop.pdf](http://www.boemre.gov/federalregister/PDFs/Bop.pdf). In 2008, MMS created exemptions to the testing requirement and relaxed the requirement that lessees provide a detailed blowout scenario plan, exempting most wells from this requirement. MINERALS MGMT. SERV., INFORMATION REQUIREMENTS FOR EXPLORATION PLANS AND DEVELOPMENT OPERATIONS COORDINATION DOCUMENTS, NTL No. 2008-G04 (Apr. 1, 2008), *available at* [www.gomr.boemre.gov/homepg/regulate/regs/ntls/2008NTLs/08-g04.pdf](http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2008NTLs/08-g04.pdf).

<sup>198</sup> *The Role of the Interior Department in the Deepwater Horizon Disaster: Hearing Before the Subcomm. on Oversight & Investigations, H. Comm. on Energy & Commerce* (July 20, 2010), *available at* [democrats.energycommerce.house.gov/documents/20100720/Stupak.Statement.07.20.2010.pdf](http://democrats.energycommerce.house.gov/documents/20100720/Stupak.Statement.07.20.2010.pdf) (opening statement of Rep. Bart Stupak) [hereinafter *Hearing on the Role of the Interior Department*].

<sup>199</sup> *Id.*

<sup>200</sup> WEST ENG'G SERVS., *supra* note 186, at 1-4.

maximum rated water depths.<sup>201</sup> Even worse, despite the regulatory requirement that operators certify their blowout preventers' shearing capabilities, only about half of those rigs' operators required a shear ram test during commissioning or acceptance.<sup>202</sup> The consultant characterized these facts as a "grim snapshot illustrat[ing] the lack of preparedness in the industry to shear and seal a well with the last line of defense against a blowout."<sup>203</sup> Since that time, the problems have only gotten worse as industry uses thicker, harder-to-cut pipes in order to drill in ever-deeper water. As evidence mounted that the power of shear rams was not keeping up with drilling techniques,<sup>204</sup> MMS failed to issue any safety alerts or adopt specific requirements for shear ram design to ensure they were powerful enough to cut the thickest pipe.

The failure to specify adequate standards was then compounded by a lax enforcement process. One colloquy during the May 2010 Joint U.S. Coast Guard/Minerals Management Service Investigation hearings on the disaster captured this problem perfectly. Captain Hung M. Nguyen, the Coast Guard Representative running the hearing was questioning Michael Saucier, MMS Regional Supervisor for Field Operations in the Gulf of Mexico.

Speaking about the blowout preventer specifications, Captain Nguyen asked:

Q: So—I'm sorry. So, my understanding is that it is designed to industry standard, manufactured by industry, installed by industry with no government witnessing oversight of the construction or the installation; is that correct?

A: That would be correct.<sup>205</sup>

Or, as Acting Inspector General Mary Kendall noted in her congressional testimony, "Generally, MMS regulations are heavily reliant on industry to document and accurately report on operations, production and royalties."<sup>206</sup> With no detailed minimum standards for

<sup>201</sup> *Id.* at 2-4.

<sup>202</sup> *Id.*

<sup>203</sup> *Id.*

<sup>204</sup> See, e.g., WEST ENG'G SERVS., *supra* note 186.

<sup>205</sup> USCG/MMS MARINE BD. OF INVESTIGATION INTO THE MARINE CAS., EXPLOSION, FIRE, POLLUTION & SINKING OF MOBILE OFFSHORE DRILLING UNIT DEEPWATER HORIZON, WITH LOSS OF LIFE IN THE GULF OF MEXICO 21-22 APRIL 2010, at 37 (May 16, 2010), [www.deepwaterinvestigation.com/external/content/document/3043/621931/1/Deepwater%20Horizon%20Joint%20Investigation%20Transcript%20-%20May%2012,%202010.pdf](http://www.deepwaterinvestigation.com/external/content/document/3043/621931/1/Deepwater%20Horizon%20Joint%20Investigation%20Transcript%20-%20May%2012,%202010.pdf).

<sup>206</sup> Testimony of Mary L. Kendall, Acting Inspector General for the Dep't of the Interior, *Before the H. Comm. on Natural Res., Subcommittee on Energy & Mineral Res.* (June 17, 2010),

blowout preventers, either for secondary back-up, for testing protocols, or for shear ram capabilities, and no oversight, an industry whose focus is profit was left to its own judgment.

### 3. Failure to Require Additional Safety Devices like Acoustic Triggers

Because blowout preventers are both critical and fallible, other oil-producing countries require an additional layer of protection in the form of a secondary fail-safe device called an acoustic trigger.<sup>207</sup> This device is an additional fail-safe, intended to allow remote activation of a blowout preventer.<sup>208</sup> Acoustic triggers thus offer an additional layer of protection in cases where a blowout preventer fails to activate.<sup>209</sup> These devices have been required in the Netherlands since 1993<sup>210</sup> and are mandatory in Brazil.<sup>211</sup>

In 2000, MMS proposed requiring acoustic triggers or another secondary backup to a blowout preventer on all rigs in U.S. waters.<sup>212</sup> MMS called these devices “an essential component of a deepwater drilling system.”<sup>213</sup> However, the API marshaled an intense lobbying effort against the proposal.<sup>214</sup> An industry-sponsored study purported to demonstrate that acoustic triggers were unreliable and should not be required.<sup>215</sup> The Cheney Energy Task force dropped the recommendation,<sup>216</sup> and it was never implemented. An API-promulgated standard suggested that these devices were optional.<sup>217</sup> In practice this

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[www.doi.gov/images/stories/KendallTestimony17June2010.pdf](http://www.doi.gov/images/stories/KendallTestimony17June2010.pdf) [hereinafter Testimony of Mary L. Kendall].

<sup>207</sup> Gold, Casselman & Chazan, *supra* note 167.

<sup>208</sup> *Id.*

<sup>209</sup> *Id.*

<sup>210</sup> NORSOK Standard, DRILLING FACILITIES REV.2, STANDARD 5.10.3.8(3) (July 1998), available at [www.standard.no/PageFiles/1318/D-001.pdf](http://www.standard.no/PageFiles/1318/D-001.pdf) (“When drilling with the BOP system installed on the seabed, an acoustic or an alternative control system *shall* in addition be installed.” (emphasis added)).

<sup>211</sup> Gold, Casselman & Chazan, *supra* note 167.

<sup>212</sup> See MINERALS MGMT. SERV., SAFETY ALERT 186: ACCIDENTAL DISCONNECT OF MARINE DRILLING RISERS (Mar. 3, 2000), available at [www.ocsbbs.com/safety/SA\\_186.asp](http://www.ocsbbs.com/safety/SA_186.asp).

<sup>213</sup> *Id.*

<sup>214</sup> Gold, Casselman & Chazan, *supra* note 167.

<sup>215</sup> WEST ENG’G SERVS., EVALUATION OF SECONDARY INTERVENTION METHODS IN WELL CONTROL (Mar. 2003), available at [www.eenews.net/public/25/15454/features/documents/2010/05/04/document\\_gw\\_04.pdf](http://www.eenews.net/public/25/15454/features/documents/2010/05/04/document_gw_04.pdf).

<sup>216</sup> See Robert F. Kennedy Jr., *Sex, Lies and Oil Spills*, HUFFPOST (May 5, 2010), [www.huffingtonpost.com/robert-f-kennedy-jr/sex-lies-and-oil-spills\\_b\\_564163.html](http://www.huffingtonpost.com/robert-f-kennedy-jr/sex-lies-and-oil-spills_b_564163.html) (making this allegation); see also Mike Papantonio, *Weighing Oil Spill’s Impact*, THE ED SHOW (Apr. 30, 2010), available at [www.msnbc.msn.com/id/21134540/vp/36879861#36879861](http://www.msnbc.msn.com/id/21134540/vp/36879861#36879861).

<sup>217</sup> Am. Petroleum Inst., Specification 16D, § 1.5, Emergency Backup BOP Control Systems

meant that when Deepwater Horizon's blowout preventer failed, there was no back-up technology to prevent an oil leak. Nor was there any proven means of shutting the then-gushing deepwater well.

The decision not to require acoustic triggers reflected the growing identity of interests between the drilling industry and the regulators overseeing their activities. A different regulatory culture, less solicitous of industry concerns and more focused on protecting the public, might well have led to a different result. However, this incident reveals problems beyond agency capture. Assuming for a moment that the API was correct and acoustic triggers were unreliable, the agency was still faced with a situation in which the primary safety technology, the blowout preventer, had a troublingly high failure rate. The agency could have demanded that offshore drillers come up with a *new* fail-safe technology to use in lieu of the acoustic trigger. Doing so would have required the industry to invest in safety technology and innovation. However, the OCSLA does not explicitly direct the agency to require industry to develop new technologies to protect against risks to the environment. And, in the absence of an express technology-forcing mandate, the agency was content to pick and choose among available technologies. That meant that industry, rather than regulators, decided the level of safety that would be appropriate.

At the Joint Coast Guard/MMS hearing described above, another colloquy between Captain Nguyen and Michael Saucier revealed the danger of this approach. Captain Nguyen asked whether there were any mandatory requirements for rigs to have a secondary, backup activation system for the blowout preventers.

Q: . . . right now its [secondary backup requirement] is not enforceable because it's not in the regulation?

A: Correct.

Q: So, we have no safety notices out there and it's up to the industry to comply or not?

A: No, we actually do. We issued a safety alert back in 2000 and also a note to leasees in 2001 and 2009 to highly encourage them to have a back up activation system.

Q: Highly encourage, how's that translate to enforcement?

A: There is no enforcement on it.<sup>218</sup>

Instead of requiring that oil drillers develop additional technical

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(“When the subsea control system is inaccessible or nonfunctional, an independent control system may be used to operate critical well control and/or disconnect functions.”).

<sup>218</sup> *Id.* at 43-44.

fixes, or another layer of safety protection, regulators simply accepted industry contentions that the acoustic trigger was unreliable and dropped the issue entirely. Had the MMS instead withheld approval to proceed until the industry developed technologies or operation techniques to protect against the known, significant risk that blowout preventer failures posed, it would have created a tremendous incentive for the development of new safety technologies.

*ii. Failure to Require Adequate Spill Response Plans*

On paper, this regulatory regime for spill planning and prevention was rigorous. At each stage of the offshore drilling process, regulators must comply with NEPA, beginning with the approval of a nationwide 5-Year OCS Leasing Program<sup>219</sup> and ending with approving the decommissioning of individual wells.<sup>220</sup> As part of this process, MMS promulgated regulations required extensive information about spill response preparation.<sup>221</sup> Lessees were directed to submit spill response plans that included a worst-case discharge scenario, including the location of equipment and the names of primary spill response contractors.<sup>222</sup> These regulations required that, at the exploration stage, the company identify a worst-case scenario with considerable specificity, including the highest volume of oil that could be released, the maximum flow rate and duration, the likelihood that an uncontrolled spill could be arrested, and the time it would take to dig a relief well,<sup>223</sup> as well as information about financing and technology.<sup>224</sup>

However, other portions of those regulations gave MMS the discretion to limit the information it required from lessees.<sup>225</sup> MMS took

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<sup>219</sup> An OCS Leasing Program is the schedule of oil and gas lease sales (including the size, timing, and location of proposed leasing activity) that the Secretary determines will best balance the nation's energy needs with environmental and social considerations for the five-year period following its approval. *See* OCSLA, 42 U.S.C.A. § 1331 (Westlaw 2011). Before an area can be offered for leasing, it must be included in the current five-year program. The current five-year leasing program can be found at [www.boemre.gov/5-year/2007-2012LeaseSaleSchedule.htm](http://www.boemre.gov/5-year/2007-2012LeaseSaleSchedule.htm).

<sup>220</sup> NEPA applies to all major federal actions, including decommissioning a well. *See, e.g.*, BOEMRE, REGIONAL IMPORTANCE OF MANMADE STRUCTURES AS ROCKFISH NURSERIES (2010), available at [www.boemre.gov/eppd/PDF/EPPDStudies/RegionalImportanceManmadeStructures.pdf](http://www.boemre.gov/eppd/PDF/EPPDStudies/RegionalImportanceManmadeStructures.pdf) (referring to compliance with NEPA in the decommissioning process).

<sup>221</sup> 30 C.F.R. §§ 250.201(a), 250.202 (Westlaw 2011).

<sup>222</sup> 30 C.F.R. § 250.219 (Westlaw 2011); *see also* 30 C.F.R. § 250.243(h) (Westlaw 2011).

<sup>223</sup> 30 C.F.R. § 250.243(h) (Westlaw 2011).

<sup>224</sup> *Id.*

<sup>225</sup> *See* 30 C.F.R. § 250.201(c) (Westlaw 2011). This section gives the Regional Director discretion to limit the amount of information a lessee must provide when "(1) Sufficient applicable information or analysis is readily available to MMS; (2) Other coastal or marine resources are not

full advantage of this discretion, issuing Notices to Lessees (NTL) that dramatically limited the scale and kinds of information required to accompany drilling plans.<sup>226</sup> In particular, MMS gave industry a pass with regard to a response to blowouts and estimating worst-case discharge scenarios, allowing general regional estimates to replace detailed analyses targeting specific wells, and exempting some wells entirely.<sup>227</sup>

Although the Oil Pollution Act requires that the owner or operator of a tank vessel or facility “prepare and submit . . . a plan for responding, to the maximum extent practicable, to a worst case discharge,”<sup>228</sup> MMS similarly whittled down its regulatory powers. It did so by interpreting this broad statutory obligation narrowly and tying spill response obligations to “the limitations of available technology.”<sup>229</sup> Thus the lessee’s responsibilities are limited to using available technology regardless of whether available technology can adequately protect the environment.<sup>230</sup> There is no requirement that a lessee ensure that adequate technology exists to respond to potential spills. This regulatory framework creates a perverse incentive. Because there is no obligation to develop more advanced technologies capable of cleaning up more oil, and because the development of such technologies creates increased cleanup obligations, there is an incentive for companies not to develop better cleanup technologies, lest they increase their cleanup obligations.

The OCSLA provides that an exploration plan may be rejected if it will “probably cause serious harm or damage to life (including fish and other aquatic life), to property, to any mineral (in areas leased or not leased), to the national security or defense, or to the marine, coastal, or

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present or affected; (3) Other factors such as technological advances affect information needs; or (4) Information is not necessary or required for a State to determine consistency with their CZMA Plan.” *Id.*

<sup>226</sup> U.S. DEP’T OF INTERIOR, MINERAL MGMT. SERV., GULF OF MEXICO OCS REGION, INFORMATION REQUIREMENTS FOR EXPLORATION PLANS AND DEVELOPMENT OPERATIONS COORDINATION DOCUMENTS (Apr. 1, 2008), available at [www.gomr.boemre.gov/homepg/regulate/regs/ntls/2008NTLs/08-g04.pdf](http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2008NTLs/08-g04.pdf).

<sup>227</sup> *Id.*

<sup>228</sup> Oil Pollution Act of 1990, Pub. L. No. 101-380, 104 Stat. 484 (codified as amended at 33 U.S.C.A. § 2701 et seq. (Westlaw 2011)).

<sup>229</sup> 30 C.F.R. § 254.6 (Westlaw 2011) (defining “Maximum extent practicable” to mean “within the limitations of available technology”).

<sup>230</sup> The recent report by the OCS Safety Oversight Board noted an additional flaw: oil spill response plans “are designed to deal with surface oil cleanup, not containment and control of wells at the spill’s source.” See OUTER CONT’L SHELF SAFETY OVERSIGHT BD., U.S. DEP’T OF THE INTERIOR, REPORT TO SECRETARY OF THE INTERIOR KEN SALAZAR (Sept. 1, 2010), [www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&PageID=43677](http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&PageID=43677) [hereinafter REPORT TO KEN SALAZAR].

human environment.”<sup>231</sup> Duly promulgated regulations direct MMS to “evaluate fully the potential effect of leasing on the human, marine and coastal environments, and develop measures to mitigate adverse impacts, including lease stipulations.”<sup>232</sup> Unfortunately, the agency has only thirty days in which to make such a determination.<sup>233</sup> Thirty days is not enough time to prepare an adequate EA or EIS. The agency is forced by this artificially short deadline to make critical decisions on the basis of more generic documents<sup>234</sup> prepared for earlier stages of the leasing process, rather than on site-specific information prepared with regard to the particular wells under consideration. The Council on Environmental Quality encourages this practice by directing agencies to tier the environmental analyses required under NEPA.<sup>235</sup> The theory is that such an approach will avoid repetitive discussions of the same issues, but realistically the practice of tiering, as done for offshore drilling, means there is rarely any serious consideration of site-specific environmental concerns or the cumulative effects of multiple leases.<sup>236</sup> With no time for adequate environmental review, the agency routinely used categorical exemptions to waive the need for rigorous environmental review in the form of EAs or EISs under NEPA.<sup>237</sup>

Lessees know that the agency will not have enough time to do a thorough investigation of environmental impacts.<sup>238</sup> They also know that going through the motions of environmental planning, creating meaningless documents crammed with recycled and inaccurate information, is likely to go undetected.<sup>239</sup> When the limitations on

<sup>231</sup> 43 U.S.C.A. § 1334(a)(2) (Westlaw 2011); *see also* 30 C.F.R. § 250.12 (Westlaw 2011).

<sup>232</sup> 30 C.F.R. § 256.26(b) (Westlaw 2011).

<sup>233</sup> 43 U.S.C.A. §§1340, 1334(a)(2)(c) (Westlaw 2011).

<sup>234</sup> 30 C.F.R. § 250.232(c) (Westlaw 2011).

<sup>235</sup> *See* 40 C.F.R. § 1502.20 (Westlaw 2011).

<sup>236</sup> *See, e.g., Nat'l Audubon Soc'y v. Kempthorne*, No. 1:05-cv-00008-JKS (D. Alaska Sept. 25, 2006) (finding that the agency failed to adequately consider cumulative effects in approving leases).

<sup>237</sup> This problem has an easy and obvious solution. If Congress amended the OCSLA to remove or extend this short time limit, the agency would have the time to conduct a full environmental analysis. For a discussion of this point, *see* ALYSON FLOURNOY ET AL., CTR. FOR PROGRESSIVE REFORM, REGULATORY BLOWOUT: HOW REGULATORY FAILURES MADE THE BP DISASTER POSSIBLE, AND HOW THE SYSTEM CAN BE FIXED TO AVOID A RECURRENCE 18-19 (2010), available at [www.progressivereform.org/articles/BP\\_Reg\\_Blowout\\_1007.pdf](http://www.progressivereform.org/articles/BP_Reg_Blowout_1007.pdf).

<sup>238</sup> For example, prior to the congressional hearings, regulators seemed not to have noticed that many different companies had submitted identical spill response plans, complete with identical errors.

<sup>239</sup> For a discussion of the NEPA failures associated with MMS's review of BP's Macondo filings, *see* Sandra B. Zellmer, Robert L. Glicksman & Joel A. Mintz, *Throwing Precaution to the Wind: NEPA and the Deepwater Horizon Blowout*, J. ENERGY & ENVTL. L. (forthcoming 2011), available at [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1760425](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1760425); *see also* Mike Soraghan, *NEPA*

agency review associated with time pressures are coupled with the perverse agency policy deterring the development of more advanced cleanup technology, the incentives for industry are clear.

This is a regulatory scheme that encourages stagnation. By tying the lessees' spill prevention and cleanup obligations to existing technologies, MMS created a perverse incentive for industry not to develop better technologies. Had MMS keyed spill response requirements to standards based on avoiding negative environmental impacts, the regulatory incentives would be toward innovation. The Coast Guard flagged this problem, warning in 2002 that:

Improved mechanical and non-mechanical recovery technologies . . . are not generally available and without requirements in place to require use of new response technologies, they will not be developed and deployed adequately. . . . Without a requirement to have these technologies, there is little incentive for plan holders to invest in them and therefore, little incentive for technology companies to develop or refine these technologies further.<sup>240</sup>

Subsequent events in the Gulf showed how prescient this Coast Guard warning had been. Despite representations that it had response technology on hand to respond to a spill, it took BP weeks to construct its first attempt at a solution, which it dubbed “the dome.”<sup>241</sup> Regulators had never inquired beyond the bland assurances about “proven equipment and technology” to find out what “proven technologies” offshore drillers actually had at their disposal.<sup>242</sup> As a result, when disaster struck, BP found itself in the unenviable position of having to wing it.<sup>243</sup>

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*Reviews Could Stall Return of Offshore Drilling Projects in Deep Water*, N.Y. TIMES, Feb. 3, 2011, available at [www.nytimes.com/gwire/2011/02/03/03greenwire-nepa-reviews-could-stall-return-of-offshore-dr-20907.html](http://www.nytimes.com/gwire/2011/02/03/03greenwire-nepa-reviews-could-stall-return-of-offshore-dr-20907.html) (noting that a full EIS requires eight to nine months, not thirty days).

<sup>240</sup> U.S. COAST GUARD, 2002 SPILL OF NATIONAL SIGNIFICANCE AFTER ACTION REPORT 22 (Dec. 13, 2002), available at [www.uscg.mil/history/docs/2002SONSAARfinalReport.pdf](http://www.uscg.mil/history/docs/2002SONSAARfinalReport.pdf). Vice Admiral Thad Allen was the National Incident Commander for this simulation. *Id.* at 1.

<sup>241</sup> Subsequent technologies deployed to stop the spill (which also failed) were called “top hat,” “junk shot,” and “top kill.” These also had to be constructed after the spill.

<sup>242</sup> When asked why they did not have such equipment already on hand in the Gulf, BP managers explained that a blowout had been “inconceivable.” Indeed, it was an open secret in the industry that nobody knew how to stop a deep-sea leak. Shell Oil admitted as much in a 2000 Environmental Assessment filed with MMS. See BLOCKS 158 & 202, *supra* note 99, at app. D 3-4 (Shell received the permit anyway).

<sup>243</sup> Guy Chazan & Jim Carlton, *The Gulf Oil Spill: BP Wasn't Prepared for Leak, CEO Says*, WALL ST. J. at A.5 (May 14, 2010) (quoting Tony Hayward admitting that rather than having “capabilit[ies] that we could have available to deploy instantly,” the company had been “creating it as we go”).

## B. THE PROBLEM OF SHORT-CHANGING NEPA

In its programmatic EIS for drilling in the Western Gulf of Mexico, a requirement under the NEPA, MMS downplayed the risk of blowouts as negligible and easily addressed by modern technology.<sup>244</sup> Citing what it called “an increasingly effective campaign of positive prevention and preparedness initiatives,” MMS concluded that spills would be unlikely. The agency further projected that if any spills did occur, they would be “primarily short-term and localized in nature.”<sup>245</sup>

This discussion from 2000 FONSI is typical of how MMS approached its regulatory task vis-à-vis spills. Shell proposed a drilling project it dubbed “Brutus” in water 2958 feet deep.<sup>246</sup> It submitted an EA that candidly stated the risks associated with a deepwater blowout:

Although not a new potential source of spills, the likelihood of spills from loss of control (blowouts) in deep water may be different from the risk of spills in shallow water. Further investigation is required before the consequences of blowouts in deep water can be fully evaluated. Of particular concern is the ability to stop well control loss once it begins, thus limiting the size of a spill. Regaining well control in deep water may be a problem since it could require the operator to cap and control well flow at the seabed in great water depths (in this instance, over 2,958 feet) and could require simultaneous fire-fighting efforts at the surface.<sup>247</sup>

In issuing a FONSI under NEPA,<sup>248</sup> MMS indicated that “potential impacts from an accidental release of oil from a high-volume blowout are a concern,”<sup>249</sup> but comforted itself with the fact that “it is rare for such a pollution event to occur,” and that by regulation it required well control and blowout prevention equipment, procedures, and inspections.<sup>250</sup> The agency also noted that the company had access to skimming equipment that could further mitigate the potential impacts

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<sup>244</sup> MINERALS MGMT. SERV., U.S. DEP’T OF THE INTERIOR, GULF OF MEXICO OCS OIL AND GAS LEASE SALES: 2007-2012, at 4-379 (Apr. 2007), [www.gomr.boemre.gov/PDFs/2007/2007-018-Vol1.pdf](http://www.gomr.boemre.gov/PDFs/2007/2007-018-Vol1.pdf).

<sup>245</sup> *Id.*

<sup>246</sup> See BLOCKS 158 & 202, *supra* note 99.

<sup>247</sup> *Id.*

<sup>248</sup> See U.S. DEP’T OF THE INTERIOR, DEPARTMENTAL MANUAL § 15.4(10) (May 27, 2004), available at [elips.doi.gov/app\\_dm/act\\_getfiles.cfm?relnum=3625](http://elips.doi.gov/app_dm/act_getfiles.cfm?relnum=3625) [hereinafter DEPARTMENTAL MANUAL].

<sup>249</sup> See BLOCKS 158 & 202, *supra* note 99, at iii. All references in this paragraph of text are to this document.

<sup>250</sup> *Id.*

from an oil spill.<sup>251</sup> The agency's entire analysis of spill potential and prevention was contained in one brief paragraph. When the regulatory decisionmakers are convinced there is virtually no possibility of a blowout, there is little prospect of rigorous oversight.<sup>252</sup> Consistent with its assumption that blowouts would not occur, MMS had virtually no regulations prescribing how to investigate such an occurrence.<sup>253</sup>

Beginning in 2004, MMS took this perspective to its logical extreme and started issuing "categorical exclusions" to exempt all oil development in the Western Gulf of Mexico from further environmental review altogether, unless the activity was unusually risky or near an area of "high biological sensitivity."<sup>254</sup> MMS identified the "extraordinary circumstances" that would bar categorical exclusions as explorations in areas of high seismic risk, in untested waters, on bottoms with hazardous conditions, within or near sensitive wildlife areas, or using new or unusual technology.<sup>255</sup> Council on Environmental Quality regulations allow "categorical exclusions" from the NEPA process for categories of activities determined to have "no significant impact either individually or cumulatively" on the environment.<sup>256</sup> However, categorical exclusions are supposed to be reserved for routine activities with "minimal to nonexistent" impacts. Inherently risky activities like deep-water drilling do not fall within that purview.<sup>257</sup>

<sup>251</sup> *Id.*

<sup>252</sup> DeParle, *supra* note 133 (describing two instances in which MMS lead officials stated there was no possibility of a deepwater blowout. One of those instances was in response to a direct question by the agency's head of environmental division about the possibilities of a blowout. The official response was reportedly "it is impossible,").

<sup>253</sup> See REPORT TO KEN SALAZAR, *supra* note 230; see also Testimony of Mary L. Kendall, *supra* note 206.

<sup>254</sup> DEPARTMENTAL MANUAL, *supra* note 248, at 5.4(C)(10).

<sup>255</sup> *Id.*

<sup>256</sup> 40 C.F.R. § 1508.4 (Westlaw 2011) (agency procedures for granting these exclusions relied on "extraordinary circumstances" when an exclusion would not apply).

<sup>257</sup> Those limitations were rescinded by the BOEMRE in the wake of the Deepwater Horizon disaster. See BUREAU OF ENERGY MGMT., REGULATION & ENFORCEMENT, U.S. DEP'T OF THE INTERIOR, INFORMATION REQUIREMENTS FOR EXPLORATION PLANS, DEVELOPMENT AND PRODUCTION PLANS, AND DEVELOPMENT OPERATIONS COORDINATION DOCUMENTS ON THE OCS, NTL NO. 2010-N06 (June 18, 2010), available at [www.gomr.boemre.gov/homepg/regulate/regs/ntls/2010NTLs/10-n06.pdf](http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2010NTLs/10-n06.pdf). As of mid-June 2010, lessees must now submit "a scenario for the potential blowout" that includes "the estimated flow rate, total volume, and maximum duration of the potential blowout." *Id.* at 2. Lessees are also directed to predict "the likelihood for surface intervention to stop the blowout" as well as to "[s]pecify as accurately as possible the time it would take to contract for a rig, move it onsite, and drill a relief well." *Id.* Yet, even as oil was flowing into the Gulf, the agency was still issuing categorical exclusions. A number of environmental groups are suing over this practice, because it limits the agency's ability to consider alternatives with regard to drilling in an environmentally responsible fashion. See also DeParle, *supra* note 133 (quoting Kieran Suckling, executive director of the Center for Biological Diversity, "What's missing when you do a

Thus, it is not surprising that when BP repeatedly predicted “little risk” of a spill,<sup>258</sup> and minimal impacts should one occur, due to “currents and microbial degradation”<sup>259</sup> and the “capability of adult fish and shellfish to avoid a spill,”<sup>260</sup> the agency did not blink.<sup>261</sup> Because BP started from the assumption that “[i]t was unlikely that an accidental oil spill release would occur from the proposed activities”<sup>262</sup> it could casually claim in its Exploration Plan that “no adverse impacts to marine and pelagic birds,”<sup>263</sup> marine mammals,<sup>264</sup> sea turtles,<sup>265</sup> fisheries,<sup>266</sup> beaches,<sup>267</sup> or wetlands<sup>268</sup> would be expected as the result of its activities. BP offered the blanket assurance that “[i]n the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on industry-wide standards for using proven equipment and technology for such responses.”<sup>269</sup> BP reaffirmed that it had the capability to respond to a worst-case spill of hundreds of thousands of barrels per day.<sup>270</sup>

In this, BP was following standard industry practices of offering hollow assurances of no or minimal harm, offering no support for those claims and then moving on. In fact, there was no proven cleanup technology, there was no cleanup equipment, proven or otherwise, and, of course, the effects of the spill were monumental.

After the spill, it became clear that BP’s Regional Oil Spill Response Plan for the Gulf<sup>271</sup> was riddled with omissions and glaring errors.<sup>272</sup> In this, it was no different from the spill response plans

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categorical exclusion is the chance to consider alternative techniques. . . . You say there is only one option — the preferred option of the oil industry.”).

<sup>258</sup> BP EXPLORATION & PROD., INC., INITIAL EXPLORATION PLAN: MISSISSIPPI CANYON BLOCK 252, OCS-G 32306 § 14.2.1.5 (Feb. 2009), *available at* [www.gomr.boemre.gov/PI/PDFImages/PLANS/29/29977.pdf](http://www.gomr.boemre.gov/PI/PDFImages/PLANS/29/29977.pdf).

<sup>259</sup> *Id.*

<sup>260</sup> *Id.* § 14.2.1.6.

<sup>261</sup> *Id.* § 14.2.3.

<sup>262</sup> *Id.* § 14.2.1.5.

<sup>263</sup> *Id.* § 14.2.2.1.

<sup>264</sup> *Id.* § 14.2.1.7.

<sup>265</sup> *Id.* § 14.2.1.8.

<sup>266</sup> *Id.* § 14.2.1.5.

<sup>267</sup> *Id.* § 14.2.3.1.

<sup>268</sup> *Id.* § 14.2.3.21.5.

<sup>269</sup> *Id.* § 14.2.2.

<sup>270</sup> *Id.* at 7-1.

<sup>271</sup> BP GULF OF MEXICO REGIONAL RESPONSE PLAN (2009), [www.boemre.gov/DeepwaterHorizon/BP\\_Regional\\_OSRP\\_Redactedv2.pdf](http://www.boemre.gov/DeepwaterHorizon/BP_Regional_OSRP_Redactedv2.pdf).

<sup>272</sup> Holbrook Mohr, Justin Pritchard & Tamara Lush, *BP Spill Response Plans Severely Flawed*, MSNBC.COM (June 9, 2010), [www.msnbc.msn.com/id/37599810/ns/disaster\\_in\\_the\\_gulf/t/bp-spill-](http://www.msnbc.msn.com/id/37599810/ns/disaster_in_the_gulf/t/bp-spill-)

submitted by Exxon, Shell, Conoco, and Chevron as part of their applications to drill in the Gulf of Mexico.<sup>273</sup> The plans contained identical assurances that a spill was unlikely and, should the unlikely occur, could be easily contained.<sup>274</sup> The plans even contained identical errors— references to long-dead experts,<sup>275</sup> incorrect web addresses,<sup>276</sup> and the assurance that a spill would not harm Pacific walrus populations.<sup>277</sup> Given that the nearest walrus population was quite far away, this was the only assurance of no harm that the companies could be confident of delivering in the event of a spill. Henry Waxman called them “cookie cutter” plans.<sup>278</sup> All had been prepared by the same consultant<sup>279</sup> and contained verbatim assurances about the lack of environmental impacts.<sup>280</sup> With a significant component of the regulatory process reduced to pro forma paper pushing, it is no wonder that approvals in the Gulf occurred with lightning speed. More critically, that meant that all the other major oil companies were just as unprepared as BP had been to respond to a major spill.

Even Tony Hayward, CEO of BP during the Gulf Oil disaster, acknowledged that “it was entirely fair criticism to say that BP was not prepared for a deep-water oil leak.”<sup>281</sup> He acknowledged that BP, “did not have “the tools you would want in your tool-kit.”<sup>282</sup> These comments

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response-plans-severely-flawed/ (documenting errors).

<sup>273</sup> All of the plans, with their virtually identical covers and virtually identical content, can be found at *Identical Oil Spill Response Plans*, PUBLIC INTELLIGENCE (June 18, 2010), [publicintelligence.net/identical-oil-spill-response-plans/](http://publicintelligence.net/identical-oil-spill-response-plans/). The site contains a page-by-page comparison of identical charts, identical planning elements and identical language.

<sup>274</sup> *Id.*

<sup>275</sup> BP GULF OF MEXICO REGIONAL RESPONSE PLAN, *supra* note 271, at F-19 (referring to Prof. Paul Lutz, who died in 2006). Many of the phone numbers were also incorrect. *See also* Associated Press, *BP’s Gulf Oil Spill Response Plans Severely Flawed*, NOLA.COM (June 9, 2010), [www.nola.com/news/gulf-oil-spill/index.ssf/2010/06/bps\\_gulf\\_oil\\_spill\\_response\\_pl.html](http://www.nola.com/news/gulf-oil-spill/index.ssf/2010/06/bps_gulf_oil_spill_response_pl.html).

<sup>276</sup> BP GULF OF MEXICO REGIONAL RESPONSE PLAN, *supra* note 271, at 1-74. The website provided for Marine Spill Response Corp., one of the two firms BP relies on for equipment to clean a spill, instead links to a defunct Japanese-language page.

<sup>277</sup> *Id.* at 11-7.

<sup>278</sup> *Drilling Down on America’s Energy Future: Safety, Security, and Clean Energy: Hearing Before the Subcomm. on Energy & Env’t, H. Comm. on Energy & Commerce* (June 15, 2010), available at [democrats.energycommerce.house.gov/documents/20100615/Waxman.Statement.ee.06.15.2010.pdf](http://democrats.energycommerce.house.gov/documents/20100615/Waxman.Statement.ee.06.15.2010.pdf) (opening statement of Rep. Henry A. Waxman).

<sup>279</sup> In his opening statement at the June 15, 2010, Energy and Environment Subcommittee Hearing on the BP Oil Spill, Rep. Henry Waxman noted that all the plans had been prepared by the same consultant, the Response Group. *Id.*

<sup>280</sup> *Id.*

<sup>281</sup> Ed Crooks, *BP ‘Not Prepared’ For Deepwater Spill*, Financial Times (June 10, 2010) [www.ft.com/intl/cms/s/0/e1e0e21c-6e53-11df-ab79-00144feabdc0.html#axzz1SU22kFGr](http://www.ft.com/intl/cms/s/0/e1e0e21c-6e53-11df-ab79-00144feabdc0.html#axzz1SU22kFGr) (quoting Tony Hayward).

<sup>282</sup> *Id.*

were in stark contrast to what BP had assured the government just a year before. As part of its permit application seeking approval for its plans to drill the Macondo well, BP represented that it could recover up to 500,000 barrels of oil a day using standard technology. Subsequent events instead showed the company improvising on the fly because it did not have the capacity to deal with a spill flowing at a tenth of that rate.

The discrepancy between BP's representations and its actual capacity leads both toward and away from the straightforward explanation. Yes, BP submitted a deeply flawed Spill Response Plan that vastly overstated its capacity to respond to a blowout, but so did every other oil company drilling offshore. None of the other oil companies was any more capable of responding to a major blowout than BP had been. And MMS approved them all, accepting industry claims of "proven technology" without question.<sup>283</sup> During the congressional hearings investigating the BP catastrophe, Exxon Chairman Rex Tillerson acknowledged, in response to questioning by Rep. Bart Stupak, that "[w]hen these things happen, we are not well equipped to deal with them."<sup>284</sup> When Rep. Stupak pressed Exxon's Chairman on this point, stating, "[N]o matter which one of the oil companies here before us had a blowout, the resources are not enough to prevent what we are seeing day after day in the Gulf," the answer Chairman Tillerson gave was, "[T]hat is correct."<sup>285</sup> The companies had mouthed the words needed to clear the application hurdle, but they had no actual capacity to respond to a worst-case scenario or deliver on the commitments contained in the plan.

Based on API and industry representations, the regulators structured their regulatory oversight on the mistaken assumption that there was no chance of a disaster happening.<sup>286</sup> In this, they were guilty of what Richard Feynman described, in the wake of the Challenger disaster, as "gradually fooling [themselves] while degrading standards."<sup>287</sup> Because the agency was convinced that there was almost no risk of an adverse event, there was little incentive to engage in rigorous oversight.<sup>288</sup>

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<sup>283</sup> Mike Soraghan, *Industry Claims of "Proven" Technology Went Unchallenged at MMS*, GREENWIRE (June 2, 2010), [www.eenews.net/public/Greenwire/2010/06/02/1](http://www.eenews.net/public/Greenwire/2010/06/02/1).

<sup>284</sup> Jonathan Tilove, *Safety of Deepwater Drilling Debated in Hearing on Capitol Hill*, NOLA.COM (June 15, 2010), [www.nola.com/news/gulf-oil-spill/index.ssf/2010/06/safety\\_of\\_deepwater\\_drilling\\_d.html](http://www.nola.com/news/gulf-oil-spill/index.ssf/2010/06/safety_of_deepwater_drilling_d.html).

<sup>285</sup> *Id.*

<sup>286</sup> *Drilling Down on America's Energy Future, Safety Security and Clean Energy: Hearing Before Subcomm. on Energy & Env't, H. Comm. on Energy & Commerce* (June 15, 2010) (statement of Rep. Edward J. Markey, Chairman), *available at* [democrats.energycommerce.house.gov/documents/20100615/Markey.Statement.ee.06.15.2010.pdf](http://democrats.energycommerce.house.gov/documents/20100615/Markey.Statement.ee.06.15.2010.pdf).

<sup>287</sup> FEYNMAN, *supra* note 1.

<sup>288</sup> DeParle, *supra* note 133 (describing two instances in which MMS lead officials stated

Consistent with its assumption that blowouts would not occur, MMS had virtually no regulations prescribing how to investigate such an occurrence.<sup>289</sup> The National Commission found that there had been no improvement in spill response technology in at least twenty years despite all the advances in offshore drilling.<sup>290</sup> This is not a new revelation available only in hindsight. The Coast Guard had warned in 2002 that industry's drilling and exploration abilities vastly exceeded its safety and cleanup capacity, and that this situation would not change unless the government insisted, through regulatory commands, that industry develop the missing cleanup and response technologies.<sup>291</sup> The agency did not follow through on its responsibilities.

As a result, while technology for drilling leapfrogged ahead, BP relied on the same rudimentary cleanup technology that had been inadequate to respond to the Exxon Valdez spill twenty years earlier.<sup>292</sup> The same dispersant, Corexit, was used, despite no demonstration that dispersing oil helped clean up a spill, and a host of unanswered questions about the environmental impacts of the dispersant itself. The booms used to contain the oil spill with what the Commission called "limited effect" were virtually identical to the spill response technology developed during World War II to contain spilled oil.<sup>293</sup> Seventy years later, the same rudimentary technology was still in use. More than four million feet of booms were deployed in the Gulf while the Macondo well was spewing its oil.<sup>294</sup> The boom, a mixture of hard and sorbent boom, was intended to protect environmentally sensitive lands like wildlife refuges, estuaries, beaches, and marshes from contamination.<sup>295</sup> Its success was at best mixed. Despite a massive boom deployment, thousands of miles of Gulf

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there was no possibility of a deepwater blowout. One of those instances was in response to a direct question by the agency's head of environmental division about the possibilities of a blowout. The official response was reportedly "it is impossible.").

<sup>289</sup> See REPORT TO KEN SALAZAR, *supra* note 230; see also Testimony of Mary L. Kendall, *supra* note 206.

<sup>290</sup> NAT'L COMM'N REPORT, *supra* note 15, at 269-70.

<sup>291</sup> U.S. COAST GUARD, 2002 SPILL OF NATIONAL SIGNIFICANCE AFTER ACTION REPORT 22 (Dec. 13, 2002), available at [www.uscg.mil/history/docs/2002SONSAARfinalReport.pdf](http://www.uscg.mil/history/docs/2002SONSAARfinalReport.pdf).

<sup>292</sup> For a description of the inadequacy of clean up technology in the context of the Exxon Valdez spill, see H.R. REP. NO. 101-242, Part 3: Committee on Science, Space and Technology 235, reproduced in OIL POLLUTION DESKBOOK 233 (1991).

<sup>293</sup> *Oil Spill Report*, ENERGYNOW! (Jan. 16, 2011), available at [www.energynow.com/node/2906#](http://www.energynow.com/node/2906#).

<sup>294</sup> *More than 1.5 Million Feet of Hard Boom Recovered from Coastal Waters*, RESTORETHEGULF.GOV (Aug. 23, 2010), [www.restorethegulf.gov/release/2010/08/23/more-15-million-feet-hard-boom-recovered-coastal-waters](http://www.restorethegulf.gov/release/2010/08/23/more-15-million-feet-hard-boom-recovered-coastal-waters).

<sup>295</sup> NAT'L OCEANIC & ATMOSPHERIC ADMIN., USING BOOM IN RESPONSE TO OIL SPILLS (May 18, 2010), available at [www.noaa.gov/factsheets/new%20version/boom.pdf](http://www.noaa.gov/factsheets/new%20version/boom.pdf).

coastlines were despoiled with oil, destroying livelihoods and threatening marine life.<sup>296</sup> And there is no evidence that booms can be effective in the choppy, open seas associated with deepwater drilling.<sup>297</sup>

There is no great mystery here. Drilling technology advanced because there is a private value attached to extraction technology—its development meant that oil companies could generate profits from new resources. Development of these technologies is thus an investment in future profits. Safety and cleanup technology, on the other hand, has typically been marked down on the expense side of the ledger—something to be minimized whenever possible. Private incentives favored investing in extraction technology rather than in safety technology. This disconnect between the private incentives of profit and the overall public good is a primary justification for regulation.

In addition to the statutory and regulatory deficiencies identified above, there are two other primary considerations in grappling with the complex explanation for the BP disaster. The hollowing out of government, through lack of resources, and a revolving door<sup>298</sup> between industry and government also contributed significantly to the problems identified above.

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<sup>296</sup> For a vivid photographic documentation of the devastated Gulf coastline, including oil floating around booms and oiled animals, see *Oil Reaches Louisiana Shores*, BOSTON.COM (May 24, 2010), [www.boston.com/bigpicture/2010/05/oil\\_reaches\\_louisiana\\_shores.html](http://www.boston.com/bigpicture/2010/05/oil_reaches_louisiana_shores.html). In the hardest-hit state, Louisiana, 3086 miles coastline still await clean up (including marshes and beaches), with an additional 1598 miles of beach targeted for cleanup in Mississippi, Alabama and Florida. See Mark Schleifstein, *Gulf of Mexico Oil Spill Continues to Foul 168 Miles of Louisiana Coastline*, NOLA.COM (Dec. 30, 2010), [www.nola.com/news/gulf-oil-spill/index.ssf/2010/12/gulf\\_of\\_mexico\\_oil\\_spill\\_conti.html](http://www.nola.com/news/gulf-oil-spill/index.ssf/2010/12/gulf_of_mexico_oil_spill_conti.html). The environmental and economic losses are staggering.

<sup>297</sup> Cain Burdeau & Holbrook Mohr, *Document; BP Did Not Plan For Major Oil Spill* ABC NEWS.COM (April 30, 2010), available at [timeswv.com/headlinenews/x1271726704/BP-didn-t-plan-for-major-oil-spill](http://timeswv.com/headlinenews/x1271726704/BP-didn-t-plan-for-major-oil-spill) (describing how boom fails in choppy water). This is an even more pressing issue in Alaska, where ice, rough seas and lack of manpower mean that industry projections about the effectiveness of boom to contain an oil spill are highly improbable. A recent, relatively small spill (up to 800 gallons) in Norway provided a preview of the challenges of trying to contain an oil spill in icy waters. AFP, *Up to 200 Birds Injured off Norway After Spill* (Feb. 20, 2011), available at [www.france24.com/en/20110220-200-birds-injured-off-norway-after-spill](http://www.france24.com/en/20110220-200-birds-injured-off-norway-after-spill) (describing how sea ice inhibited boom effectiveness and how sub-zero temperatures prevented workers from responding fully to the disaster). For photographs of boom rendered ineffective by sea ice, see Caitlin Leutwiler, *Norwegian Oil Spill Proves Fears of Arctic Drilling Disaster*, DEFENDERS OF WILDLIFE (Mar. 4, 2011), available at [www.defendersblog.org/2011/03/norwegian-oil-spill-proves-fears-of-arctic-drilling-disaster/](http://www.defendersblog.org/2011/03/norwegian-oil-spill-proves-fears-of-arctic-drilling-disaster/).

<sup>298</sup> This problem is not unique to regulation of offshore drilling. Indeed, in the context of the banking crisis, astute observers have repeatedly noted the corrupting influence of this phenomenon. See Simon Johnson, *The Ruinous Fiscal Impact of Big Banks*, N.Y. TIMES, Feb. 3, 2011, available at [economix.blogs.nytimes.com/2011/02/03/the-ruinous-fiscal-impact-of-big-banks/?hp](http://economix.blogs.nytimes.com/2011/02/03/the-ruinous-fiscal-impact-of-big-banks/?hp) (complaining that “a well-regarded regulator can and often does go work for a bank afterward”).

i. *Hollow Government: Lack of Resources*

The number of producing deepwater wells in the Gulf of Mexico increased from sixty-five in 1985 to more than 600 in 2009.<sup>299</sup> According to a 2007 management report submitted, in the twenty-five years between 1982 and 2007, OCS leasing increased by 200% and oil production has increased by 185%.<sup>300</sup> At the same time, MMS staffing resources decreased by 36%.<sup>301</sup> In his opening statement at the House Oversight Hearing on the Role of the Department of Interior in the Deepwater Horizon Disaster, the Committee's Chair, Rep. Bart Stupak, noted that the number of federal inspectors stagnated, even as the complexity and number of wells, not to mention the distance that must be traveled to reach them, increased.<sup>302</sup> In 1985, MMS had fifty-five inspectors.<sup>303</sup> In spring 2010, Acting Department of the Interior Inspector General, Mary Kendall, testified before the House Committee on Natural Resources that there were sixty inspectors for the almost 4000 facilities in the Gulf of Mexico region.<sup>304</sup> She contrasted this situation with the Pacific Coast, which has ten inspectors for only twenty-three facilities.<sup>305</sup> Agency personnel were not only overwhelmed, they were also under-resourced, with a 2010 budget that was roughly equivalent to the agency's budget in the 1980s—before overseeing deepwater drilling was added to its oversight portfolio.<sup>306</sup> As a result, MMS was hard-pressed to keep talented employees who could earn twice as much working for industry.<sup>307</sup> Indeed, the agency did not even have a budget adequate to provide the transportation necessary to conduct surprise inspections of deepwater rigs.<sup>308</sup> With the agency dependent on industry for

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<sup>299</sup> A list of deepwater wells in the Gulf of Mexico can be found at the BOEMRE website, [www.gomr.boemre.gov/homepg/offshore/deepwtr.html](http://www.gomr.boemre.gov/homepg/offshore/deepwtr.html).

<sup>300</sup> U.S. DEPARTMENT OF THE INTERIOR, OFFSHORE MINERALS MANAGEMENT BUSINESS ASSESSMENT AND ALIGNMENT REPORT (May 2007), [www.noia.org/website/navdispatch.asp?id=40069](http://www.noia.org/website/navdispatch.asp?id=40069).

<sup>301</sup> *Id.*

<sup>302</sup> *Hearing on the Role of the Interior Department*, *supra* note 198.

<sup>303</sup> *Id.*

<sup>304</sup> Testimony of Mary L. Kendall, *supra* note 206.

<sup>305</sup> *Id.*

<sup>306</sup> See NAT'L COMM'N REPORT, *supra* note 15, at 290.

<sup>307</sup> John M. Broder & Clifford Krauss, *Regulation of Offshore Rigs Is a Work in Progress*, N.Y. TIMES, Apr. 17, 2011, available at [www.nytimes.com/2011/04/17/us/politics/17regulate.html](http://www.nytimes.com/2011/04/17/us/politics/17regulate.html).

<sup>308</sup> Of course, official agency policy also evinced a lack of inclination to conduct these inspections. See Russell Gold, *Inspectors Rarely Surprised Oil Rigs*, WALL ST. J., Oct. 11, 2010, available at [online.wsj.com/article/SB10001424052748703358504575544294191404032.html?mod=WSJ\\_US\\_News\\_5#articleTabs%3Darticle](http://online.wsj.com/article/SB10001424052748703358504575544294191404032.html?mod=WSJ_US_News_5#articleTabs%3Darticle) (reporting that there have been no surprise inspections on deepwater production platforms since 2004 and that, in contravention of

transportation to the rigs in order to do inspections, it was not possible to make inspections a priority,<sup>309</sup> and it was next to impossible for the agency to do its job of enforcing safety and environmental standards.

This was not the only example of how hollow government hurt the agency. Along the same lines, after the 2004 Spill of National Significance simulation, the Coast Guard noted that “[o]il spill response personnel did not appear to have even a basic knowledge of the equipment required to support salvage or spill cleanup operations.”<sup>310</sup>

## ii. Agency Culture

Even had MMS had adequate funding and staffing, it would still have been faced with hopelessly conflicting regulatory tasks. Wearing its licensing hat, the agency leased sites for drilling and production; wearing its revenue collection hat, the agency assessed royalty payments based on the value of the oil and gas produced at those sites; wearing its regulator hat, the agency set environmental and safety standards; and wearing yet another hat, this time enforcement, the agency was tasked with overseeing production to ensure it complied with those environmental and safety standards.<sup>311</sup> To the extent that enforcing those environmental and safety standards might slow or stall unsafe production, thereby reducing royalties, there was a clear tension between the revenue collection task and the regulatory enforcement task. Given that the day before the spill, Congress was claiming that revenues collected from offshore drilling would top \$40 billion over the five years,<sup>312</sup> and given the national security priority of increasing domestic oil production, many of the agency’s incentives lined up neatly with furthering the cozy

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law, internal agency policies prohibited surprise inspections).

<sup>309</sup> See *Hearing on the Role of the Interior Department*, *supra* note 198.

<sup>310</sup> DEP’T OF HOMELAND SEC. & U.S. COAST GUARD, CALIFORNIA SONS 04 AFTER ACTION REPORT 47 (Sept. 10, 2004), available at [www.uscg.mil/history/docs/2004SONSAfterActionReport.pdf](http://www.uscg.mil/history/docs/2004SONSAfterActionReport.pdf).

<sup>311</sup> Indeed, one highly trumpeted reform in the wake of the BP Deepwater Horizon disaster was the transformation of MMS into three distinct agencies in order to eliminate the conflicts inherent in these multiple missions. Under the reorganization, MMS was divided into the Bureau of Ocean Energy Management, which has responsibility for planning, permitting and leasing; the Bureau of Safety and Environmental Enforcement, which has responsibility for oversight, safety and environmental protection of offshore oil operations; and the Office of Natural Resources Revenue, which has responsibility for collecting royalties and revenues. See Mark Jaffe, *Drilling Agency MMS Split into 3*, DENVER POST, May 20, 2010, available at [www.denverpost.com/news/ci\\_15121932](http://www.denverpost.com/news/ci_15121932).

<sup>312</sup> Ben Geman, *Senior Dems Warn Against Sharing Offshore Drilling Revenue with States*, THE HILL’S ENVIRONMENT AND ENERGY BLOG (Apr. 19, 2010, 11:42 AM ET), [thehill.com/blogs/e2-wire/677-e2-wire/93011-senior-dems-warn-against-devasting-offshore-drilling-revenue-plans-in-climate-bill](http://thehill.com/blogs/e2-wire/677-e2-wire/93011-senior-dems-warn-against-devasting-offshore-drilling-revenue-plans-in-climate-bill).

relationship between the regulators and industry. The revenue-generating function created a powerful disincentive to delay or deny approval of permits for further environmental investigation even when the proposed drilling posed risks to sensitive environments, and an even bigger deterrent to shutting down wells, even when they were being operated in an unsafe manner. Inspections were infrequent, and there are multiple reports of industry completing inspection forms for the inspectors.<sup>313</sup>

MMS took pride in the fact that Gulf offshore wells went from discovery to production in sixty-eight months—just over half the 116 months it took in the European Union, and significantly less than the global average of eighty months.<sup>314</sup> A high-level MMS employee described sending a message to industry of “let the good times roll.”<sup>315</sup> One district manager succinctly summed up the problem in conversations with investigators. “Obviously we’re all oil industry,”<sup>316</sup> he said of the regulators and the industry they were tasked with supervising:

We’re all from the same part of the country. Almost all of our inspectors have worked for oil companies out on these platforms. They grew up in the same towns. Some of these people, they’ve been friends with all their life. They’ve been with these people since they were kids. They’ve hunted together. They fish together.<sup>317</sup>

This blurring of the roles between regulated and regulator produced what acting Inspector General Mary Kendall called “egregious misconduct” by MMS employees.<sup>318</sup> Inspectors were routinely treated to golf tournaments, hunting trips, fishing expeditions, sporting tickets and other expensive “perks” by the oil companies MMS was supposed to be regulating.<sup>319</sup> Indeed, MMS had developed so pervasive a culture of deference to corporate interests that agency staff failed even to recognize unethical, inappropriate, and unlawful behavior in many cases. As part of an investigation of corruption in MMS’s Lake Charles, Louisiana, office, Office of Inspector General investigators heard a consistent refrain of

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<sup>313</sup> See OFFICE OF INSPECTOR GEN., U.S. DEP’T OF THE INTERIOR, INVESTIGATIVE REPORT, ISLAND OPERATING COMPANY ET AL. 7 (Mar. 31, 2010), available at [www.doi.gov/images/stories/reports/pdf/IslandOperatingCo.pdf](http://www.doi.gov/images/stories/reports/pdf/IslandOperatingCo.pdf) [hereinafter DOI INVESTIGATIVE REPORT].

<sup>314</sup> LEHNER & DEANS, *supra* note 40, at 101.

<sup>315</sup> DeParle, *supra* note 133 (quoting MMS official Chris Oynes describing a 1997 lease sale in Louisiana).

<sup>316</sup> DOI INVESTIGATIVE REPORT, *supra* note 311, at 3.

<sup>317</sup> *Id.*

<sup>318</sup> Testimony of Mary Kendall, *supra* note 206.

<sup>319</sup> DOI INVESTIGATIVE REPORT, *supra* note 311, at 3.

“everybody was doing it.”<sup>320</sup> The recent reports by the Department of the Interior Inspector General and OCS Safety Oversight Board have amply documented how the agency’s culture became corrupted.<sup>321</sup> The substantive impacts of these dynamics were significant.<sup>322</sup> Scientists at MMS complained that managers changed or minimized findings about potential environmental impact findings in NEPA documents in order to expedite plan approvals.<sup>323</sup> Indeed, there were widespread complaints that MMS managers believed the result of NEPA evaluations should always be a green light to proceed.<sup>324</sup>

MMS is no stranger to this sort of conflict. In 2007, a sex-and-bribery scandal at MMS’s Denver office exploded across the front pages of newspapers around the country.<sup>325</sup> Commenting on this situation in a May 2010 press conference, President Obama described the problem thusly: “For years, there has been a scandalously close relationship between the oil companies and the agency that regulates them. . . . [The oil and gas companies] have effectively been allowed to regulate themselves.”<sup>326</sup>

#### IV. LESSONS LEARNED

As an entity, BP has an abysmal safety record. However, the Gulf oil spill did not happen in a vacuum. It occurred in a heavily regulated industry theoretically required to meet stringent environmental and safety standards. BP purportedly met all of those standards. An ironic side-note to the Macondo blowout was MMS’s scramble to delay and then ultimately cancel its plan to award BP its 2010 Industry Safety Award.

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<sup>320</sup> *Id.*

<sup>321</sup> *Id.*; see also REPORT TO KEN SALAZAR, *supra* note 230.

<sup>322</sup> DOI INVESTIGATIVE REPORT, *supra* note 311, at 2-6.

<sup>323</sup> OUTER CONT’L SHELF SAFETY OVERSIGHT BD., *supra* note 230, at 20.

<sup>324</sup> For example, one agency scientist told the New York Times, “You simply are not allowed to conclude that the drilling will have an impact. . . . If you find the risks of a spill are high or you conclude that a certain species will be affected, your report gets disappeared in a desk drawer and they find another scientist to redo it or they rewrite it for you.” Ian Urbina, *U.S. Said to Allow Drilling Without Needed Permits*, N.Y. TIMES, May 13, 2010, available at [www.nytimes.com/2010/05/14/us/14agency.html?\\_r=1](http://www.nytimes.com/2010/05/14/us/14agency.html?_r=1).

<sup>325</sup> See, e.g., *Interior Dept. Scandal: Sex, Drugs, Energy Deals Probed at Denver Office*, DENVER POST, Sept. 10, 2008, available at [www.denverpost.com/breakingnews/ci\\_10428441](http://www.denverpost.com/breakingnews/ci_10428441); Derek Kravitz & Mary Pat Flaherty, *Report Says Oil Agency Ran Amok*, WASH. POST, Sept. 11, 2008, available at [www.washingtonpost.com/wp-dyn/content/article/2008/09/10/AR2008091001829.html](http://www.washingtonpost.com/wp-dyn/content/article/2008/09/10/AR2008091001829.html). A September 2008 Inspector General’s report implicated more than a dozen employees in the Denver royalty-in-kind office in unethical and criminal conduct.

<sup>326</sup> Press Release, The White House, Remarks by the President on the Gulf Oil Spill (May 27, 2010), available at [www.whitehouse.gov/the-press-office/remarks-president-gulf-oil-spill](http://www.whitehouse.gov/the-press-office/remarks-president-gulf-oil-spill).

It should come as no surprise that the oil industry is more eager to invest in extraction technology than in safety and containment. Society has long recognized the conflict between private and public interests with regard to protecting the environment, worker health, and a host of other key public policy choices.<sup>327</sup> Private actors left to their own devices have little incentive to protect public goods or to protect the public against many health, safety, and environmental externalities created by their private, profit-making activities. This tendency is even more pronounced when private actors capture all of the benefit associated with an activity, like the new drilling enabled by deepwater technology, but bear only a fractional share of the costs associated with the lack of adequate safety and cleanup technology.

Given these incentives, it was entirely predictable that the companies engaged in deepwater drilling were likely to focus their resources on developing new extraction technologies without a parallel investment in safety and containment. The National Commission emphasized this point and echoed the Coast Guard's 2002 warning by writing, "The record shows that without effective government oversight, the offshore oil and gas industry will not adequately reduce the risk of accidents, nor prepare effectively to respond in emergencies."<sup>328</sup>

To rectify this situation, and to bridge the gap between private incentives and public goods, Congress and state legislatures have enacted a slew of safety and environmental statutes like the Toxic Substance Control Act,<sup>329</sup> the Occupational Health and Safety Act,<sup>330</sup> the Clean Air Act,<sup>331</sup> and the Clean Water Act.<sup>332</sup> These statutes give regulatory agencies the power to require development and deployment of safety technologies and processes for which there is no business case but that are critical to protecting public goods or the public itself. This role for regulation is particularly important for something like offshore drilling. Unless the law specifies otherwise, the gains and profits associated with drilling are concentrated in the hands of the private companies involved, but the harms and costs of a spill are spread across a wide swath of society and the environment. As we have seen in the BP oil disaster, as well as in the banking crisis, this privatization of gains and socialization of losses creates perverse incentives.

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<sup>327</sup> Indeed, it was precisely this insight that gave rise to the regulatory state. *See, e.g.*, Robert L. Rabin, *Federal Regulation in Historical Perspective*, 38 *STAN. L. REV.* 1189 (1986).

<sup>328</sup> NAT'L COMM'N REPORT, *supra* note 15, at 217.

<sup>329</sup> 15 U.S.C.A. § 2605 et seq. (Westlaw 2011).

<sup>330</sup> 29 U.S.C.A. § 651 et seq. (Westlaw 2011).

<sup>331</sup> 42 U.S.C.A. § 7401 et seq. (Westlaw 2011).

<sup>332</sup> 33 U.S.C.A. § 1251 et seq. (Westlaw 2011)

Yet, over the past few decades we have repeatedly been told that “burdensome regulation” hinders business, with the implication that any regulation is burdensome.<sup>333</sup> President Reagan campaigned on the idea of “getting government off our back.” The idea that markets themselves contained sufficient incentives to prompt private actors to protect the public and the environment became common currency.<sup>334</sup> Regulators too began to believe that long-term interests and reputational concerns would guide corporate actors even in the face of pressures to maximize short-term profits. From that starting point, it is only a small step to the conclusion that industry self-regulation can achieve public goals, with less expense to either the public or to the regulated entities. Thus, the political consensus for public safeguards to protect our health, safety, and environment<sup>335</sup> broke down just as companies began employing riskier technologies and processes. This trend accelerated in the second Bush Administration when waivers for environmental assessment became routine.<sup>336</sup>

Only now is the nation beginning to reap the “fruits” of an approach that placed its trust in voluntary, ad hoc actions in place of systemic formal requirements. Sadly, corporations did exactly what a rational, value-maximizing individual with no constraints would be predicted to do—they invested in drilling technology and not in cleanup technology. The government that was supposed to be the bulwark against unfettered self-interest failed to force BP and the other oil companies to internalize the costs they were only too happy to externalize onto the rest of us. In

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<sup>333</sup> Indeed, a recent Google search of “burdensome regulation” returned over 1.54 million hits. Popular targets are worker safety regulations, environmental regulations and other health-based regulations. See, e.g., Gregory Conko & Sam Kazman, *Reduce Burdensome Regulation of Medicines and Medical Devices*, COMPETITIVE ENTER. INST. (Jan. 19, 2011), [cei.org/agenda-congress/reduce-burdensome-regulation-medicines-and-medical-devices](http://cei.org/agenda-congress/reduce-burdensome-regulation-medicines-and-medical-devices).

<sup>334</sup> See, e.g., TERRY L. ANDERSON & DONALD R. LEAL, *FREE MARKET ENVIRONMENTALISM* (2001).

<sup>335</sup> The Clean Air Act and NEPA, for example, were passed with overwhelming bipartisan support in both the House and the Senate.

<sup>336</sup> For example, in just the first six months of 2006, the Bureau of Land Management issued 1361 permits to drill under NEPA categorical exemptions. Dan Berman, *Western Govs Seek Moratorium on NEPA Waivers in Sensitive Habitats*, RED LODGE CLEARINGHOUSE (Feb. 28, 2007), [rlch.org/news/western-govs-seek-moratorium-nepa-waivers-sensitive-habitats](http://rlch.org/news/western-govs-seek-moratorium-nepa-waivers-sensitive-habitats). The practice became so pervasive that the Western Governors’ Association called on the Bush Administration to cease use of categorical exemptions in crucial wildlife habitats. *Id.* The Bush Administration also used NEPA waivers to exempt the border fence with Mexico from environmental review and to greenlight Navy sonar testing despite concerns about adverse effects on whales and other marine mammals. See, e.g., Associated Press, *Bush Administration to Issue Waivers to Build US-Mexico Border Fence* (Apr. 2, 2008), [www.foxnews.com/story/0,2933,344790,00.html](http://www.foxnews.com/story/0,2933,344790,00.html); *Bush Exempts Navy from Court Order Protecting Whales*, ENV’T NEWS SERV. (Jan. 16, 2008), [www.ens-newswire.com/ens/jan2008/2008-01-16-02.html](http://www.ens-newswire.com/ens/jan2008/2008-01-16-02.html).

the wake of the disaster, we see the oil industry strategizing about how to head off more and better regulation, and the House of Representatives proposing to limit environmental review of drilling in Alaska.<sup>337</sup>

Given the disaster, some kind of administrative reorganization is inevitable. Indeed, reorganization has already begun, with MMS being split into three agencies to separate the royalty generating function from the permitting function and the regulatory oversight function.<sup>338</sup> This change makes good sense; the recognition that the agency was hopelessly conflicted by its dual mandate harkens back to the decision to move pesticide registration from USDA to EPA for similar reasons.<sup>339</sup> There are certainly some clear problems with how MMS regulated offshore drilling that must be addressed. Beyond the highly contextual specifics, and its unique combination of actors, regulatory reforms proposed or enacted in response to Deepwater Horizon can offer a window into some broad and fundamental questions about the nature of the administrative state. In particular, this catastrophe shines a bright light on the practice of implicit privatization of the regulatory state. Explicit privatization, the shrinking of the footprint of the regulatory state in favor of the market, is a public process and has been the subject of substantial scholarly critique and public debate.<sup>340</sup> Implicit privatization, by contrast, leaves the outline of the regulatory state intact but transfers to private parties, sub rosa, many of the regulatory powers delegated to an agency.

Although that framing of the topic is dramatic, implicit privatization is not a matter of backroom conspiracy. Rather, most implicit privatization is simply a function of an overwhelmed or captured agency relying ever more heavily on its industry “partners.” Across a wide spectrum of government activities, private actors are increasingly involved in activities once thought to be the exclusive preserve of governments. Many scholars and government watchdogs have noted with alarm that private contractors now play a significant role in planning and

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<sup>337</sup> Erika Bolstad, *House GOP Aims to Reduce EPA Authority over Arctic Drilling*, ANCHORAGE DAILY NEWS, Apr. 13, 2011, available at [www.adn.com/2011/04/13/1808011/gop-aims-to-reduce-epa-authority.html](http://www.adn.com/2011/04/13/1808011/gop-aims-to-reduce-epa-authority.html).

<sup>338</sup> U.S. DEP’T OF THE INTERIOR, SECRETARIAL ORDER NO. 3302, CHANGE OF THE NAME OF THE MINERALS MANAGEMENT SERVICE TO THE BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION AND ENFORCEMENT (June 18, 2010), available at [www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=35872](http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=35872); see also *Hearing on the Role of the Interior Department*, supra note 198.

<sup>339</sup> CHRISTOPHER J. BOSSO, PESTICIDES AND POLITICS: THE LIFE CYCLE OF A PUBLIC ISSUE 10-14 (1987).

<sup>340</sup> See, e.g., GOVERNMENT BY CONTRACT: OUTSOURCING AND AMERICAN DEMOCRACY (Jody Freeman & Martha Minow eds., 2009).

operational decision-making for many erstwhile government activities,<sup>341</sup> including basic government activities like writing regulations. The BP crisis revealed the nature and extent of agency reliance on the oil industry while in the process emphasizing how much influence industry had over that most critical of government functions: deciding the level of acceptable risk in a democratic society. This kind of assessment is at the core of what the public expects government to be doing. It is one of the primary governmental responsibilities in a democratic, capitalist society. Thus it came as something of a shock to discover just how thoroughly MMS had privatized that task to the American Petroleum Institute (API).<sup>342</sup>

As a private entity, API operates free from many of the legal obligations imposed on government actors to ensure transparency, fairness and access. For example, API has no legal obligation to defend its discretionary decisions under a rationality standard. Yet, API standards frequently balance risk to the environment against costs to industry, the quintessential context for a rationality inquiry. Given the pervasive role that API standards play in offshore drilling, this accountability gap that is particularly troubling.

API also does not have to set its standards in public the way that an agency does. API's rules require only that specifically interested parties be given notice of a standard-setting initiative,<sup>343</sup> and "specifically interested" is defined in a fashion that largely excludes the general public. API's quest for balance in its standard-setting involves making sure that manufacturers and users of technology participate equally,<sup>344</sup> but not that all voices be included. This is a very different process from

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<sup>341</sup> See, e.g., Martha Minow, *Outsourcing Power: How Privatizing Military Efforts Challenges Accountability, Professionalism, and Democracy*, 46 B.C. L. REV. 989 (2005); Dan Guttman, *Contracting United States Government Work: Organizational and Constitutional Models*, 3 PUB. ORG. REV. 281 (2003).

<sup>342</sup> MINERALS MGMT. SERV., U.S. DEP'T OF THE INTERIOR, UPDATE OF REVISED AND REAFFIRMED DOCUMENTS INCORPORATED BY REFERENCE, 75 Fed. Reg. 22,219 (Apr. 28, 2010), available at [www.federalregister.gov/articles/2010/04/28/2010-9612/update-of-revised-and-reaffirmed-documents-incorporated-by-reference](http://www.federalregister.gov/articles/2010/04/28/2010-9612/update-of-revised-and-reaffirmed-documents-incorporated-by-reference); see also Les Blumenthal & Erika Bolstad, *U.S. Agency Let Industry Write Offshore Drilling Rules*, MCCLATCHY (May 10, 2010), [www.mcclatchydc.com/2010/05/10/93859/us-agency-lets-oil-industry-write.html](http://www.mcclatchydc.com/2010/05/10/93859/us-agency-lets-oil-industry-write.html).

<sup>343</sup> AM. PETROLEUM INST., PROCEDURES FOR STANDARDS DEVELOPMENT § 7.1 (2006), [mycommittees.api.org/standards/Reference/apistndrdsdevlpmntprcdrs.pdf](http://mycommittees.api.org/standards/Reference/apistndrdsdevlpmntprcdrs.pdf) ("Participation in API standards activities is open to all parties (persons and organizations) that have a direct and material interest in the subject of a standard.").

<sup>344</sup> API strives for what it calls "balanced representation," which consists of one-third representation for the traditional model of the three interest categories of operator-user, manufacturer, and general (which means consultants). See *id.* Notably absent from the list are affected communities or environmental groups.

that engaged in by an agency—with widespread public notice and equal participation opportunities for all.<sup>345</sup>

Although API sub-meetings are nominally open to the public, the public is given neither notice of the meetings nor the opportunity to participate.<sup>346</sup> The standards that emerge from such a process are likely to be very different from a process that fully includes the needs, interests and concerns of the beneficiaries of safety and environmental regulation. The National Commission concluded that agency adoption of API standards as the nation’s regulatory safety standards meant that “API’s shortfalls . . . undermined the entire federal regulatory system.”<sup>347</sup>

## V. CONCLUSION

BP’s Deepwater Horizon disaster was unprecedented in scope, yet the failures that led to the catastrophe were eminently predictable. In fact, they had been repeatedly predicted, although to no avail. Having watched in frustration as a vital ecosystem was devastated, while BP tried to spin the disaster away,<sup>348</sup> and industry cheerleaders like Rep. Barton apologized to the company for the government’s temerity in demanding compensation,<sup>349</sup> the temptation to point fingers is very strong. Bad company; greedy industry; corrupt agency—there is plenty of blame to go around. The now-defunct MMS came in for a massive portion of that blame. But an honest examination of the complex web of government and industry interactions makes it clear that it is not enough merely to blame the regulators themselves for regulatory shortfalls. While BP bears the brunt of the responsibility for its reckless disregard

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<sup>345</sup> Section 553(c) of the Administrative Procedure Act opens participation to the general public. See 5 U.S.C.A. § 553(c) (Westlaw 2011). Public participation and transparency are widely considered to be the backbone of legitimacy for public agencies. See CARY COGLIANESE, HEATHER KILMARTIN & EVAN MENDELSON, TRANSPARENCY AND PARTICIPATION IN THE RULEMAKING PROCESS (2008), [www.hks.harvard.edu/hepg/Papers/transparencyReport.pdf](http://www.hks.harvard.edu/hepg/Papers/transparencyReport.pdf).

<sup>346</sup> See AM. PETROLEUM INST., *supra* note 343, at § 7.1 (specifying that participation is open to those with “a direct and material interest” in the substance of a standard). The interest categories defined by the API notably do not include the general public, environmental organizations, or worker safety organizations. See *id.* at § 7.1.1.

<sup>347</sup> NAT’L COMM’N REPORT, *supra* note 15, at 225.

<sup>348</sup> BP was widely criticized for faux news articles trying to minimize the extent of the disaster. See Rebecca Bratspies, *Ballet at Sea: Who Does BP Think It Is Kidding?*, INTLAWGRRLS (June 18, 2010, 11:10 AM), [intlawgrrls.blogspot.com/2010/06/ballet-at-sea-who-does-bp-think-it-is.html](http://intlawgrrls.blogspot.com/2010/06/ballet-at-sea-who-does-bp-think-it-is.html). BP has wisely taken down the link to these articles, but for excerpts, see Cliff Kuang, *Can You Beat BP’s Ridiculous “Reports from the Gulf,”* FAST COMPANY (June 15, 2010), [www.fastcompany.com/1660006/like-the-onion-except-disgusting-bp-prs-reports-from-the-gulf](http://www.fastcompany.com/1660006/like-the-onion-except-disgusting-bp-prs-reports-from-the-gulf).

<sup>349</sup> Video, *Rep. Joe Barton Apologizes to BP for \$20 Billion Claims Fund*, YOUTUBE (June 17, 2010), [www.youtube.com/watch?v=Gv0siXm2cpc](http://www.youtube.com/watch?v=Gv0siXm2cpc).

of safe practices, and the agency itself certainly failed in its duty to protect the public and the environment, the system as a whole is in desperate need of reform.

Yet, a year after the spill, society seems to have moved on. Unlike the 1969 Santa Barbara oil spill, which produced NEPA, or the 1989 Exxon Valdez spill, which produced the Oil Pollution Act, Congress has so far failed to respond to the BP oil spill with new legislation. The Department of the Interior has taken many administrative steps to improve oversight, but without legislative empowerment, it can only do so much.

The safety of deepwater drilling is an issue that demands attention. The dangers still exist. The blowout preventers in use today remain incapable of handling a blowout akin to the BP blast. Industry is only marginally more capable of responding to a blowout in 2011 than it was in 2010. MMS's successor agency is still strapped for expertise and for cash. Meanwhile, some in Congress seem bent on relaxing existing standards, rather than strengthening them.

Remember, MMS relied on API for the substance of its regulations not only because there was a revolving door between the agency and industry or because the agency identified more with the entities it was supposed to regulate than the public it was supposed to protect. MMS also relied on API because its employees had neither the training nor the resources to keep up with the technological innovations developed in the private sector. There is no getting around it—insufficiently resourced and undertrained regulators have little choice but to rely on industry standards as the basis, and in many cases the substance, of federal regulation. The cumulative impact of an under-resourced and under-supported regulatory infrastructure is this overreliance on industry and a concomitant diminishment of government capacity. When regulators set fewer and fewer of their own regulatory standards, they lose the expertise necessary to properly assess proposed standards proffered to them by industry. This loss of capacity in turn further ingrains the revolving door and increases the potential for conflicts of interest. At the same time, this overreliance on industry undermines the basic democratic norms of transparency, rationality, and accountability.