AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

THE ROLE OF BP IN THE DEEPWATER HORIZON EXPLOSION AND OIL SPILL

HEARING

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

JUNE 17, 2010

Serial No. 111–137

Printed for the use of the Committee on Energy and Commerce

energycommerce.house.gov

U.S. GOVERNMENT PRINTING OFFICE

77–914 WASHINGTON : 2013

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON ENERGY AND COMMERCE

HENRY A. WAXMAN, California, *Chairman*

JOHN D. DINGELL, Michigan
Chairman Emeritus
EDWARD J. MARKEY, Massachusetts
RICK BOUCHER, Virginia
FRANK PALLONE, JR., New Jersey
BART GORDON, Tennessee
BOBBY L. RUSH, Illinois
ANNA G. ESHOO, California
BART STUPAK, Michigan
ELIOT L. ENGEL, New York
GENE GREEN, Texas
DIANA DEGETTE, Colorado
Vice Chairman
LOIS CAPPS, California
MICHAEL F. DOYLE, Pennsylvania
JANE HARMAN, California
TOM ALLEN, Maine
JANICE D. SCHAKOWSKY, Illinois
CHARLES A. GONZALEZ, Texas
JAY INSLEE, Washington
TAMMY BALDWIN, Wisconsin
MIKE ROSS, Arkansas
ANTHONY D. WEINER, New York
JIM MATHESON, Utah
G.K. BUTTERFIELD, North Carolina
CHARLIE MELANCON, Louisiana
JOHN BARROW, Georgia
BARON P. HILL, Indiana
DORIS O. MATSUI, California
DONNA M. CHRISTENSEN, Virgin Islands
KATHY CASTOR, Florida
JOHN P. SARBANES, Maryland
CHRISTOPHER S. MURPHY, Connecticut
ZACHARY T. SPACE, Ohio
JERRY MCNERNEY, California
BETTY SUTTON, Ohio
BRUCE L. BRALEY, Iowa
PETER WELCH, Vermont

JOE BARTON, Texas
Ranking Member
RALPH M. HALL, Texas
FRED UPTON, Michigan
CLIFF STEARNS, Florida
NATHAN DEAL, Georgia
ED WHITFIELD, Kentucky
JOHN SHIMKUS, Illinois
JOHN B. SHADEGG, Arizona
ROY BLUNT, Missouri
STEVE BUYER, Indiana
GEORGE RADANOVICH, California
JOSEPH R. PITTS, Pennsylvania
MARY BONO MACK, California
GREG WALDEN, Oregon
LEE TERRY, Nebraska
MIKE ROGERS, Michigan
SUE WILKINS MYRICK, North Carolina
JOHN SULLIVAN, Oklahoma
TIM MURPHY, Pennsylvania
MICHAEL C. BURGESS, Texas
MARSHA BLACKBURN, Tennessee
PHIL GINGREY, Georgia
STEVE SCALISE, Louisiana

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

BART STUPAK, Michigan, *Chairman*

BRUCE L. BRALEY, Iowa
Vice Chairman
EDWARD J. MARKEY, Massachusetts
DIANA DEGETTE, Colorado
MIKE DOYLE, Pennsylvania
JANICE D. SCHAKOWSKY, Illinois
MIKE ROSS, Arkansas
DONNA M. CHRISTENSEN, Virgin Islands
PETER WELCH, Vermont
GENE GREEN, Texas
BETTY SUTTON, Ohio
JOHN D. DINGELL, Michigan *(ex officio)*

GREG WALDEN, Oregon
Ranking Member
ED WHITFIELD, Kentucky
MIKE FERGUSON, New Jersey
TIM MURPHY, Pennsylvania
MICHAEL C. BURGESS, Texas

CONTENTS

	Page
Hon. Henry A. Waxman, a Representative in Congress from the State of California, opening statement	2
Prepared statement	4
Hon. Joe Barton, a Representative in Congress from the State of Texas, prepared statement	7
Prepared statement	9
Hon. Bart Stupak, a Representative in Congress from the State of Michigan, opening statement	14
Prepared statement	17
Hon. Michael C. Burgess, a Representative in Congress from the State of Texas, opening statement	19
Prepared statement	22
Hon. Edward J. Markey, a Representative in Congress from the Commonwealth of Massachusetts, opening statement	28
Hon. John Sullivan, a Representative in Congress from the State of Oklahoma, opening statement	29
Hon. John D. Dingell, a Representative in Congress from the State of Michigan, opening statement	30
Hon. Marsha Blackburn, a Representative in Congress from the State of Tennessee, opening statement	31
Hon. Bruce L. Braley, a Representative in Congress from the State of Iowa, opening statement	32
Hon. Phil Gingrey, a Representative in Congress from the State of Georgia, opening statement	33
Hon. Michael F. Doyle, a Representative in Congress from the Commonwealth of Pennsylvania, opening statement	34
Hon. Parker Griffith, a Representative in Congress from the State of Alabama, opening statement	35
Hon. Janice D. Schakowsky, a Representative in Congress from the State of Illinois, opening statement	36
Hon. Robert E. Latta, a Representative in Congress from the State of Ohio, opening statement	37
Prepared statement	39
Hon. Mike Ross, a Representative in Congress from the State of Arkansas, opening statement	42
Hon. Donna M. Christensen, a Representative in Congress from the Virgin Islands, opening statement	42
Hon. Peter Welch, a Representative in Congress from the State of Vermont, opening statement	43
Hon. Gene Green, a Representative in Congress from the State of Texas, opening statement	44
Hon. Betty Sutton, a Representative in Congress from the State of Ohio, opening statement	45

WITNESSES

Tony Hayward, Chief Executive Officer, BP PLC	47
Prepared statement	50

Page

SUBMITTED MATERIAL

Submission for the record by Mr. Scalise 136
Letter of June 14, 2010, from the Committee to Mr. Hayward 228
E-mail on BOP problems, dated November, 2009 242
Transocean abnormality report on BOP, dated November, 2009 244
Transocean letter on BOP modifications, dated October 11, 2004 247

THE ROLE OF BP IN THE DEEPWATER HORIZON EXPLOSION AND OIL SPILL

THURSDAY, JUNE 17, 2010

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:02 a.m., in Room 2123, Rayburn House Office Building, Hon. Bart Stupak [chairman of the subcommittee] presiding.

Present: Representatives Stupak, Braley, Markey, DeGette, Doyle, Schakowsky, Ross, Christensen, Welch, Green, Sutton, Dingell (ex officio), Waxman (ex officio), Burgess, Sullivan, Blackburn, Gingrey, Latta, and Barton (ex officio).

Also Present: Representatives Engel, Harman, Capps, Inslee, Gonzalez, Weiner, Melancon, Castor, Upton, Stearns, and Scalise.

Staff Present: Phil Barnett, Staff Director; Bruce Wolpe, Senior Advisor; Greg Dotson, Chief Counsel, Energy and Environment; Michal Freedhoff, Counsel; Robb Cobbs, Policy Analyst; Caitlin Haberman, Special Assistant; Peter Kethcham-Colwill, Special Assistant; Dave Leviss, Chief Oversight Counsel; Meredith Fuchs, Chief Investigative Counsel; Alison Cassady, Professional Staff Member; Molly Gaston, Counsel; Ali Golden, Professional Staff Member; Jennifer Owens, Investigator; Scott Schloegel, Investigator; Ali Neubauer, Special Assistant; Derrick Franklin, Detailee; Karen Lightfoot, Communications Director, Senior Policy Advisor; Elizabeth Letter, Special Assistant; Lindsay Vidal, Special Assistant; Earley Green, Chief Clerk; Mitchell Smiley, Special Assistant; Alan Slobodin, Chief Minority Counsel; Mary Neumayr, Minority Counsel; Peter Spencer, Minority Professional Staff; Kevin Kohl, Minority Professional Staff; Garrett Golding, Minority Legislative Analyst; and Jeanne Neal, Minority Research Analyst.

Mr. STUPAK. This meeting will come to order. We are going to ask the press to please clear.

This hearing of the subcommittee of the Energy and Commerce Committee, the Subcommittee on Oversight and Investigations, will commence.

Today we have a hearing titled, "The Role of BP in the Deepwater Horizon Explosion and Oil Spill."

We have a number of Members present for this hearing who are not members of the subcommittee but are members of the full Energy and Commerce Committee. I welcome them, and I note that they will be allowed to submit written statements for the record but will not deliver verbal opening statements.

In addition, after all subcommittee members complete their questioning, full committee members will be allowed to ask questions. Members who are not on the subcommittee or on the Energy and Commerce Committee are welcome to observe, but they will not be permitted to provide opening statements or ask questions, due to time constraints.

The chairman, ranking member, and chairman emeritus will be recognized for 5-minute opening statements. Other members of the committee will be recognized for 3-minute opening statements.

I will yield to the chairman of the full committee, Mr. Waxman, for the first opening statement.

OPENING STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. WAXMAN. Thank you very much, Mr. Chairman. Thank you for holding this important hearing.

And, Mr. Hayward, thank you for being here today.

Yesterday, BP pledged to establish a $20 billion escrow account and to suspend its dividend payments for the rest of the year. I am sure these were not easy decisions for you, but they were the right ones, and I commend you for them.

Congress has multiple committees examining the gulf oil spill. Some are evaluating the impact of the spill. Some are working on the reorganization of the regulatory agencies. And some, including Chairman Markey's subcommittee, are drafting legislation to reform our oil exploration laws.

You are testifying today before the Oversight and Investigation Subcommittee, and this subcommittee has a special role: to examine the facts and determine what went wrong and to make recommendations to prevent future spills.

When it is time for questioning, I and other members of the subcommittee will ask you about a series of internal BP documents. They appear to show that BP repeatedly took shortcuts that endangered lives and increased the risks of a catastrophic blowout. And I sent you a letter in advance indicating that we are going to question you about those issues.

But what is equally important is what is missing from the documents. When you became CEO of BP, you promised to focus "like a laser on safe and reliable operations." We wanted to know what you had done to keep this promise, so we asked what e-mails you had received, what documents you had reviewed about the Deepwater Horizon rig or the Macondo well before the blowout.

Deepwater drilling is inherently dangerous. As the entire country now knows, an uncontrolled blowout can kill rig workers and cause an environmental disaster. We wanted to know whether you were briefed about the risks and were monitoring the safety of the drilling operation.

We could find no evidence that you paid any attention to the tremendous risks BP was taking. We have reviewed 30,000 pages of documents from BP, including your e-mails. There is not a single e-mail or document that shows you paid even the slightest attention to the dangers at this well.

You are the CEO, so we considered the possibility that you may have delegated the oversight responsibility to someone else. We reviewed the e-mails and briefing documents received by Andy Inglis, the chief executive for exploration and production, and Doug Suttles, the chief operating officer for exploration and production and the person now leading BP's response to the spill.

According to BP, these are the senior officials who were responsible for the Macondo well. But they, too, were apparently oblivious to what was happening. We can find no evidence that either of them received any e-mails or briefings about the Deepwater Horizon rig or drilling activities at the well.

BP's corporate complacency is astonishing.

The drilling engineer for the rig called Macondo a "nightmare well." Other BP employees predicted that the cement job would fail. Halliburton warned of a "SEVERE gas flow problem." These warnings fell on deaf ears.

BP's corporate attitude may be best summed up in an e-mail from its operations drilling engineer who oversaw BP's team of drilling engineers. After learning of the risks and BP's decision to ignore them, he wrote, quote, "Who cares, it's done, end of story, will probably be fine," end quote.

There is a complete contradiction between BP's words and deeds. You were brought in to make safety the top priority of BP, but under your leadership, BP has taken the most extreme risks. BP cut corner after corner to save a million dollars here, a few hours or days there, and now the whole gulf coast is paying the price.

Today's hearing will focus on BP's actions, but we learned from our hearing earlier this week that the other oil companies are just as unprepared to deal with a massive spill as BP. We are seeing in the oil industry the same corporate indifference to risk that caused the collapse on Wall Street.

And that is why reform is so urgently needed. Part of this reform must be legislation to put teeth into our regulatory system, but part must also be a transition to a clean energy economy. We are addicted to oil. This addiction is fouling our beaches, polluting our atmosphere, and undermining our national security. We can't snap our fingers or transform our energy economy overnight, but we need to start down a path to a clean energy future.

Mr. Chairman, I look forward to today's hearing.

And, Mr. Hayward, I thank you for appearing and cooperating with our investigation.

[The prepared statement of Mr. Waxman follows:]

HENRY A. WAXMAN, CALIFORNIA
CHAIRMAN

JOE BARTON, TEXAS
RANKING MEMBER

ONE HUNDRED ELEVENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115

Majority (202) 225–2927
Minority (202) 225–3641

Opening Statement of Rep. Henry A. Waxman
Chairman, Committee on Energy and Commerce
The Role of BP in the Deepwater Horizon Explosion and Oil Spill
Subcommittee on Oversight and Investigations
June 17, 2010

Mr. Chairman, thank you for holding this important hearing.

And Mr. Hayward, thank you for appearing before us today. Yesterday, BP pledged to establish a $20 billion escrow account and to suspend its dividend payments. I'm sure these were not easy decisions for you. But they were the right ones, and I commend you for them.

Congress has multiple committees examining the Gulf oil spill. Some are evaluating the impact of the spill, some are working on the reorganization of our regulatory agencies, and some – including Chairman Markey's subcommittee – are drafting legislation to reform our oil exploration laws.

You are testifying today before the Oversight and Investigations Subcommittee. And this Subcommittee has a special role: to examine the facts, determine what went wrong, and make recommendations to prevent future spills.

When it is time for questioning, I and other members of the Subcommittee will ask you about a series of internal BP documents. They appear to show that BP repeatedly took shortcuts that endangered lives and increased the risks of a catastrophic blowout.

But what is equally important is what is missing from the documents.

When you became CEO of BP, you promised to focus "like a laser on safe and reliable operations."

We wanted to know what you had done to keep this promise, so we asked what e-mails you had received and what documents you had reviewed about the Deepwater Horizon rig or the Macondo well before the blowout.

Deepwater drilling is inherently dangerous. As the entire country now knows, an uncontrolled blowout can kill rig workers and cause an environmental disaster. We wanted to know whether you were briefed about the risks and were monitoring the safety of the drilling operation.

We could find no evidence that you paid any attention to the tremendous risks BP was taking. We have reviewed 30,000 pages of documents from BP, including your e-mails. There is not a single e-mail or document that shows you paid even the slightest attention to the dangers at this well.

You are the CEO, so we considered the possibility that you may have delegated the oversight responsibility to someone else. We reviewed the e-mails and briefing documents received by Andy Inglis, the chief executive for exploration and production, and Doug Suttles, the chief operating officer for exploration and production and the person now leading BP's response to the spill.

According to BP, these are the senior officials who were responsible for the Macondo well. But they too were apparently paying no attention. We could find no evidence that either of them received any e-mails or briefings about the Deepwater Horizon rig or the drilling activities at the well.

BP's corporate complacency is astonishing.

The drilling engineer for the rig called Macondo a "nightmare well." Other BP employees predicted that the cement job would fail. Halliburton warned of a "SEVERE gas flow problem."

These warnings fell on deaf ears.

BP's corporate attitude may be best summed up in an e-mail from its Operations Drilling Engineer, who oversaw BP's team of drilling engineers. After learning of the risks and BP's decision to ignore them, he wrote: "who cares, it's done, end of story, will probably be fine."

There is a complete contradiction between BP's words and deeds. You were brought in to make safety the top priority of BP. But under your leadership, BP has taken the most extreme risks.

BP cut corner after corner to save a million dollars here and a few hours there. And now the whole Gulf Coast is paying the price.

Mr. Hayward, one of your most illustrious countrymen, Lord Keynes, once said: "The inevitable never happens. It is the unexpected always."

Given BP's apparent indifference to risk, we can now paraphrase Lord Keynes. The inevitable did happen. And it should have been expected.

Today's hearing will focus on BP's actions. But we learned from our hearing earlier this week that the other oil companies are just as unprepared to deal with a massive spill as BP.

We are seeing in the oil industry the same corporate indifference to risk that caused the collapse on Wall Street.

From the spill off Santa Barbara in 1969, to Exxon Valdez in 1989, to the BP blowout in 2010, the pattern of risks is clear. And so is the failure of the industry to anticipate spills and respond effectively.

And that is why reform is so urgently needed. Part of this reform must be legislation to put teeth into our regulatory system. But part must also be a transition to a clean energy economy. We are addicted to oil, and this addiction is fouling our beaches, polluting our atmosphere, and undermining our national security.

We can't snap our fingers and transform our energy economy overnight, but we need to start down the path to a clean energy future. If we don't, we will be confronted with an even worse spill 20 years from now.

Mr. Chairman, I look forward to today's hearing, and Mr. Hayward, I thank you for appearing and cooperating with our investigation.

Mr. STUPAK. Thank you, Mr. Chairman.

We will next go to the ranking member of the full committee, Mr. Barton of Texas. Mr. Burgess and I will do our openings after the chair and the ranking.

Mr. Barton, please.

OPENING STATEMENT OF HON. JOE BARTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. BARTON. Thank you, Mr. Chairman.

Thank you, Mr. Hayward, for appearing before us.

We have kind of a dual track under way, in my opinion. We obviously are trying to gather the facts of what happened in the oil spill in the Gulf of Mexico a month and a half ago, trying to find out the causes of that spill, what can be done to prevent it in the future. And we are obviously very concerned about the mitigation and the cleanup.

We have a system in America, built up based on the British tradition over 200 years, of due process and fairness, where people that do bad things, in this case a corporation that is responsible for a bad accident, we want to hold them responsible, do what we can to make the liable parties pay for the damages.

Mr. Stupak and Mr. Waxman are doing an excellent job, working with Dr. Burgess and myself, in conducting, I think, a very fair oversight investigation. We are going to get into a number of those issues in this hearing, and we are going to ask you some pretty tough questions.

I am speaking totally for myself. I am not speaking for the Republican Party. I am not speaking for anybody in the House of Representatives but myself. But I am ashamed of what happened in the White House yesterday. I think it is a tragedy of the first proportion that a private corporation can be subjected to what I would characterize as a shakedown—in this case, a $20 billion shakedown—with the Attorney General of the United States, who is legitimately conducting a criminal investigation and has every right to do so to protect the interests of the American people, participating in what amounts to a $20 billion slush fund that is unprecedented in our Nation's history, that has no legal standing, and which sets, I think, a terrible precedent for the future.

If I called you into my office and I had the subcommittee chairman, Mr. Stupak, with me, who was legitimately conducting an oversight investigation on your company, and said, "If you put so many millions of dollars into a project in my congressional district," I could go to jail and should go to jail.

Now, there is no question that British Petroleum owns this lease. There is no question that BP—I am sorry, it is not "British Petroleum" anymore—that BP made decisions that objective people think compromised safety. There is no question that BP is liable for the damages. But we have a due process system where we go through hearings, in some cases court cases, litigation, and determine what those damages are and when those damages should be paid.

So I am only speaking for myself. I am not speaking for anybody else. But I apologize. I do not want to live in a country where, any time a citizen or a corporation does something that is legitimately

wrong, is subject to some sort of political pressure that, again, in my words, amounts to a shakedown. So I apologize.

But on this hearing today, I am with Mr. Waxman, with Mr. Stupak. There are questions that need to be asked, that are legitimate, because we don't want another oil spill of this magnitude or of any magnitude in the Gulf of Mexico. And if this subcommittee can do things that make it much more difficult for this type of an incident to occur in the future, then we will have done our work for the American people.

With that, Mr. Chairman, I yield back.

[The prepared statement of Mr. Barton follows:]

Opening Statement of the Honorable Joe Barton
Ranking Member, Committee on Energy and Commerce
Subcommittee on Oversight and Investigations Hearing on
The Role of BP in the Deepwater Horizon Explosion and Oil Spill
June 17, 2010

Today we look specifically at the role of BP in the Deepwater Horizon explosion and oil spill. I believe we must get all the facts on the table about what caused the Deepwater Horizon explosion and oil spill.

You have been doing that, Chairman Stupak and Chairman Waxman. Our staffs have collected vast amounts of information and we have put it out in a transparent manner. I hope we can continue work cooperatively. Cooperation strengthens the Committee's ability to get the facts from BP and the Administration and discover the truth of what went wrong.

There are still plenty of questions about what exactly happened and why, but we are beginning to see the disturbing

patterns of behavior that led to the disaster. It's beginning to seem like each bad decision begat another until they added up to critical mass and the Deepwater Horizon rig exploded. We are finding that this particular BP well may not have been designed consistent with industry best-practices – even though it was built under the oversight of the U.S. Minerals Management Service.

It appears that operators knew there were potential problems with the well design. They were warned by subcontractors of potential design flaws in their final casing and cementing job, for example, which would "have a SEVERE gas flow problem."

Although the BP managers may have thought they had reason to accept this risk, all available evidence indicates they did not take important precautions to maintain the safety of the well. They didn't try to fix the potential cementing problem. In fact, they decided not to do the very test that would have revealed whether there was a problem in the first place.

Each individual decision may have made some sense in isolation from the others. But together, they created a time bomb.

It appears if rig personnel had been paying attention to the potential problems that they were warned about and to the data revealing well vulnerabilities, this incident could have been avoided.

We have to learn more and gather more facts, Mr. Chairman. I want to understand how these actions square with the current BP corporate or management culture.

But after we gather all the facts, Mr. Chairman, we have to interpret them accurately. We have to identify solutions that fit the facts and ensure the safety and productivity of offshore drilling. That will be the real job before us. If the facts call for a federal

solution, it will be our job to pursue those reforms that will prevent future accidents like this one.

And I think there are solutions that will come from the industry -- those with the most expertise and interest to get this right -- so an accident of this magnitude doesn't happen again. Our investigation shows that there is not a technological problem with deepwater drilling. But there was a failure of judgment in this instance. Improper decisions were made that did not ensure the safety and soundness of this well. We must ensure that best practices and safety are embedded in the industry's culture, on every rig and with every well.

In response to this incident, many are presenting supposed energy solutions that do not address the problems we've uncovered. These proposals will only raise energy costs and increase our reliance on foreign oil. Indeed, the Administration has unnecessarily placed moratorium on offshore drilling, an

overbroad and ham-handed response that threatens the jobs of tens of thousands of people and risks the economies of the Gulf Coast and the rest of the country. In fact, estimates of short term employment impacts from the moratorium are 46,200 jobs lost in Louisiana alone, more than the 41,000 increase of private sector jobs in May 2010 reported by the Bureau of Labor Statistics.

Our job is to ask tough, but fair questions to identify what happened and why. We should not use this as an excuse to stop offshore production and help the White House change the subject by passing cap-and-trade legislation that will destroy jobs. This process is about figuring out how to ensure that America can rely on its own energy supplies instead of oil from overseas, and do it safely and effectively for the good of the entire country.

###

OPENING STATEMENT OF HON. BART STUPAK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. STUPAK. Thank you, Mr. Barton.

I will do my opening statement now.

Today is the 59th day of the BP oil spill that has devastated much of the Gulf of Mexico. Eleven men lost their lives the day the Deepwater Horizon drilling rig exploded, and in the 59 days that have followed, countless people have lost their livelihood, as the oil spill closes fishing grounds and pollutes the shores of the three States.

This is the third hearing the Oversight and Investigation Subcommittee has held and the fifth hearing overall in the Energy and Commerce Committee. Our first hearing exposed problems discovered with the blowout preventer and several other factors that contributed to the disaster. Our second hearing was a field hearing in New Orleans where we heard from the widows of two men who died in the Deepwater Horizon explosion as well as shrimpers and other small-business owners who have suffered from the environmental catastrophe that followed.

Our staff has spent weeks combing through hundreds of thousands of pages of documents, sitting through more than 50 hours of briefings by corporate, governmental, and academic experts, in an attempt to piece together what went wrong with BP exploration of the Macondo well. We have reviewed several questionable decisions made by BP in the days and hours leading up to the explosion, and what we have learned so far is alarming.

We have learned that, time after time, BP had warning signs that this was, as one employee put it, a "nightmare well." BP made choices that set safety aside in exchange for cost-cutting and time-saving decisions.

For example: BP disregarded questionable results from pressure tests after cementing in the well.

BP selected the riskier of two options for their well design. They could have hung a liner from the lower end of the casing already in the well and install a tieback on the top of the liner, which would have provided additional barriers to the release of hydrocarbons. Instead, they lowered a full string of new casing, which took less time and cost less but did not provide the same protection against escaping hydrocarbons.

BP was warned by their cement contractor Halliburton that the well could have a "SEVERE gas flow problem" if BP lowered the final string of casing with only six centralizers instead of the 21 Halliburton recommended. BP rejected Halliburton's advice to use additional centralizers. In an e-mail on April 16th, a BP official involved in the decision explained, and I quote, "It will take 10 hours to install them. I do not like this," end of quote.

BP chose not to fully circulate the mud in the well from the bottom to the top, which was an industry-recommended best practice that would have allowed them to test for gas in the mud.

BP chose not to use a casing hanger lockdown sleeve, which would have provided extra protection against a blowout from below.

These are just a few of the issues that led to the disaster. Once the Deepwater Horizon exploded and sank to the bottom of the sea, BP's response to contain the leak and clean up the spilled oil was

equally as poor. They issued lowball estimates of the amount of oil flowing from the well, which may have led to a scaled-back response.

We discovered that BP's oil spill response plan was virtually identical to other oil companies' plans. In a hearing Tuesday, ExxonMobil CEO Rex Tillerson admitted that once the spills occur, he says, quote, "We are not well-equipped to handle them," end of quote. All the other oil companies testified at Tuesday's hearings that they would not have drilled the well as BP did.

Our witness today, Mr. Tony Hayward, is the chief executive officer of BP. Shortly after Mr. Hayward took over as the CEO in 2007, he held a town hall meeting with employees in Houston. At this meeting, he discussed the need for BP to be leaner, with fewer people in decision-making processes.

This article—and I will ask you put up the Guardian article—an article from September 27, 2007, Guardian newspaper in London, entitled, "Hayward Says Oil Company Has Become Too Cautious," reads, and I quote, "'Assurance is killing us,' Mr. Hayward told U.S. staff, noting that too many people were engaged in decision-making, leading to excessive cautiousness, something that critics of its safety performance in the U.S. might question."

Let me put up these other notes from the same meeting. We received notes from BP of employees and their note-taking from this meeting. The employee notes summarize Mr. Hayward's statements as follows: "I don't think having all these layer of assurance reduce risk, and it can actually increase it. The best way to reduce risk is to have deep technical competence where we need it. Individuals need to be accountable for risk and to manage it," end of quote.

I find this cavalier attitude towards assessing risk unbelievable, given the fact that, at the time of these statements, BP had just been responsible for the largest oil leak in Alaska's history on the North Slope, as well as the 2005 Texas City refinery explosion, which killed 15 workers and injured another 170.

I must ask, Mr. Hayward, whether it was wise to adopt this leaner decision-making process with input from fewer people and a new approach to managing risk.

Under the leadership of Bob Malone, the former chairman and president of BP America, BP created an independent office of the ombudsman, headed by Judge Stanley Sporkin. The ombudsman's office was established because line workers reported fearing retaliation if they reported safety concerns to management.

When the current chairman and president, Lamar McKay, took over, I met with him, and he suggested that he hoped to improve the culture enough to make the ombudsman office unnecessary so he could shut it down. I urged him not to eliminate the office because it serves a significant role in investigating employee complaints.

I am more concerned now than ever about BP's safety and the role they take in assuming risk. I am concerned that the corporate culture, from BPCEO Tony Hayward down to chairman and president of BP America, Lamar McKay, and Chief Operating Officer Doug Suttles, that there is a willingness to cut costs and take greater risks.

I look forward to hearing Mr. Hayward answer the many hard-hitting questions that our committee members will ask today. I hope we will hear honest, contrite, and substantive answers.

Mr. Hayward, you owe it to all Americans. We are not "small people," but we wish to get our lives back. For the Americans who live and work on the gulf coast, it may be years before they get their lives back. For the Americans who lost their lives on the rig, their families may never get their lives back.

Mr. Hayward, I am sure you will get your life back, and with a golden parachute back to England. But we in America are left with the terrible consequences of BP's reckless disregard for safety.

I yield back my time and turn to the gentleman from Texas, Mr. Burgess, for an opening statement.

[The prepared statement of Mr. Stupak follows:]

Opening Statement
Rep. Bart Stupak, Chairman
Committee on Energy and Commerce
Subcommittee on Oversight and Investigations
"The Role of BP in the Deepwater Horizon Explosion and Oil Spill"
June 17, 2010

Today is day 59 of the BP oil spill that has devastated much of the Gulf of Mexico. Eleven men lost their lives the day the Deepwater Horizon drilling rig exploded and in the 59 days that have followed countless people have lost their livelihood as the oil spill closes fishing grounds and pollutes the shores of three states.

This is the third hearing that the Oversight & Investigations Subcommittee has held and the fifth hearing overall in the Energy & Commerce Committee. Our first hearing exposed problems discovered with the Blowout Preventer and several other factors that contributed to the disaster. Our second hearing was a field hearing in the New Orleans area where we heard from the widows of two men who died in the Deepwater Horizon explosion as well as shrimpers and other small business owners who have suffered from the environmental catastrophe that followed.

Our staff has spent weeks combing through hundreds of thousands of pages of documents and sitting through more than 50 hours of briefings by corporate, governmental and academic experts in an attempt to piece together what went wrong with BP's exploration of the Macondo well. We have reviewed several questionable decisions BP made in the days and hours leading up to the explosion, and what we have learned so far is alarming.

We have learned that time and again BP officials had warning signs that this was – as one employee put it – "a nightmare well". They made choices that set safety aside in exchange for cost cutting and time saving decisions. For example

- They disregarded questionable results from pressure tests after cementing in the well.
- BP selected the riskier of two options for their well design. They could have hung a liner from the lower end of the casing already in the well and install a "tieback" on top of the liner, which would have provided additional barriers to a release of hydrocarbons. Instead they lowered a full string of new casing, which took less time and cost less, but did not provide the same protection against escaping hydrocarbons.
- BP was warned by their cement contractor Halliburton that the well could have a "SEVERE gas flow problem" if BP lowered the final string of casing with only six centralizers instead of the 21 Halliburton recommended. BP rejected Halliburton's advice to use additional centralizers and in an e-mail on April 16, a BP official involved in the decision explained: "it will take 10 hours to install them. … I do not like this."
- BP chose not to fully circulate the mud in the well from the bottom to the top, which was an industry recommended best practice that would have allowed them to test for gas in the mud.
- BP chose not to use a casing hanger lockdown sleeve, which would have provided extra protection against a blowout from below.

These are just a few of the issues that led up to the disaster. Once the Deepwater Horizon exploded and sank to the bottom of the sea, BP's response to contain the leak and clean up the spilled oil was equally as poor. They issued lowball estimates of the amount of oil flowing from the well, which may have led to a scaled back response. We discovered that BP's oil spill response plan was

virtually identical to other oil companies' plans. In a hearing Tuesday, ExxonMobil CEO Rex Tillerson admitted that once spills occur "We are not well-equipped to handle them." BP's peer oil companies all told us at Tuesday's hearing that they would not have drilled the well as BP did.

Our witness today, Mr. Tony Hayward, is the Chief Executive Officer of BP. Shortly after Mr. Hayward took over as the CEO in 2007, he held a town hall meeting with employees in Houston. At this meeting he discussed the need for BP to be leaner, with fewer people in decision making processes. An article from the September 27, 2007 Guardian newspaper titled "**Hayward Says Oil Company Has Become Too Cautious**" reads *"'Assurance is killing us," Mr Hayward told US staff, noting that too many people were engaged in decision-making leading to excessive cautiousness, something that critics of its safety performance in the US might question.*"

We received notes taken by a BP employee who attended that meeting. The employee's notes summarize Mr. Hayward's as follows: "I don't think having all these layers of assurance reduce risk and it can actually increase it. The best way to reduce risk is to have deep technical competence where we need it. Individuals need to be accountable for risk and to manage it." I find this cavalier attitude towards assessing risk unbelievable given the fact that at the time BP had just been responsible for the largest oil leak in Alaska's history on the North Slope, as well as the 2005 Texas City refinery explosion which killed 15 workers and injured another 170.

I must ask Mr. Hayward whether it was wise to adopt his leaner decision making process with input from fewer people and a new approach to managing risk.

Under the leadership of Bob Malone, the former Chairman and President of BP America, BP created an independent office of the Ombudsman headed by Judge Stanley Sporkin. The Ombudsman's office was established because line workers reported fearing retaliation if they reported safety concerns to management. When the current Chairman and President Lamar McKay took over, I met with him and he suggested that he hoped to improve the culture enough to make the Ombudsman's office unnecessary so he could shut it down. I urged him not to eliminate the office because it serves a significant role in investigating employee complaints.

I am more concerned than ever. I am concerned that the corporate culture, from BP CEO Tony Hayward down to Chairman and President of BP America Lamar McKay, and Chief Operating Officer Doug Suttles and possibly down to the leadership on exploration rigs reflects a willingness to cut costs and take greater risks.

I look forward to hearing Mr. Hayward answer the many hard hitting questions our Committee members will ask today. I hope we will hear honest, contrite, and substantive answers. He owes it to America, he owes it to the families of those injured and killed on the Deepwater Horizon rig, and he owes it to the millions of people in the Gulf region who are suffering the consequences of BP's disregard for safety.

OPENING STATEMENT OF HON. MICHAEL C. BURGESS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. BURGESS. Thank you, Chairman Stupak.

Today does open our third hearing, and a very critical hearing, into this subcommittee's ongoing investigation into the tragic accident of the Deepwater Horizon explosion and oil spill, which continues 24 hours a day to wreak economic and environmental havoc on our gulf coast.

This hearing provides the subcommittee with an important opportunity to directly question the man who ultimately leads BP, Mr. Tony Hayward, the company's chief executive officer. And BP's role has been central to the causes of the incident and to the response.

Over the course of our inquiry to date, committee investigators, working in a bipartisan fashion, have conducted numerous interviews and briefings and reviewed tens of thousands of pages of documents. Our subcommittee staff has done an excellent job. And this subcommittee has been focused on gathering the facts, rather than rushing to judgment.

And from this intensive effort, we have begun to identify a number of serious questions about BP's decision-making that led up to the disaster. Exploring these and related questions today will help us identify for Congress and identify for the country what went wrong on April 20th and the days thereafter.

And while we are investigating, a picture of the chain of events leading to this incident is emerging. Mr. Chairman, you and Chairman Waxman recently outlined some critical questions that we hope Mr. Hayward will address. For example, you noted the investigation has identified questionable choices by BP engineers to use a particular well design over another one that would appear to have provided more built-in barriers to an uncontrolled gas discharge.

There was the choice made by BP to move forward with what appears to be an inadequate cementing plan and the related failure, despite clear warnings to test that the cement was properly set and in place. And it appears there may have been a rush to move off this well. Whether there may have been economic or other time or performance pressures or some combination thereof, it is not clear, but that clarity needs to emerge today.

The questions arising from our investigation outline the central role that BP's decision-making appears to have had in this incident. We need to understand that decision-making, Mr. Hayward, what factors influenced it, whether the decisions reflected a management and an operational mindset that failed—failed to maximize safety in a challenging deep-sea environment.

It is important to note that the picture developing from this investigation is not one of technological limits in deep-sea drilling. The construction of an 18,000-foot well was not pushing the envelope of engineering know-how, so far as we have identified. But the picture developing is one of unsafe industry practices. Although clear, more focused industry standards may be in order going forward, available evidence suggests that the use of best industry practices would have resulted in more cautious designs and more

testing, more safeguards, and ultimately no loss of control of the well.

Rather, and quite clearly, the picture developing from our investigation is one of questionable decision-making, decision-making by people charged with designing and successfully drilling, constructing, and controlling a well that was a mile under water. It is a picture composed of a series of choices which, taken together, created an oil well particularly vulnerable to a blowout and of all the people who may have been distracted, unaware, or resistant to recognizing the problems around them.

Documents show that BP was prepared to run a test on the quality of the cement job but chose not to. I can't understand why, given the history of this particular well, with four previous well control incidents in the 2 months prior to April 20th. The rig personnel appear to have taken their eye off the ball.

BP employees were the key decision-makers. Certainly, others—contractors, subcontractors, certainly Federal regulators—may have contributed to this incident. The role of the Federal Government especially, including the overall effectiveness of the response and the efforts to help those harmed by the incident, remains a critical piece that, Mr. Chairman, we must pursue at the level of this committee. And I am still disappointed that we have not done that.

But it is BP's decision-making about the well design, the cementing program, the preparation, the integrity test, or the lack thereof, or just the general lack of curiosity as to why these would be necessary, the failure to follow best practices, that our investigation to date is showing were critical factors in this incident.

But this decision-making is difficult to square with avowed priorities of BP's chief executive. Mr. Hayward, in an interview before you became chief executive, you described how the death of a worker in an operation that you were leading in Venezuela shaped your opinions. You said, and I am quoting, "I went to the funeral to pay my respects. At the end of the service, his mother came up to me and beat me on the chest. 'Why did you let it happen?' she asked. It changed the way I think about safety. Leaders must make safety of all who work for them a priority," end quote.

Mr. Hayward, I respectfully request that you answer this question in your opening statement, if not for me, then for the two ladies who testified before our committee at the field hearing who lost their husbands on the Deepwater Horizon. You have been chief executive since 2007. You said safety is your number-one priority and you would focus like a laser beam on safety.

As chief executive, one would expect your directives and priorities would be carried out by your employees. We have now learned from this investigation that BP employees made five critical decisions that may have contributed to well failure where well safety was traded off. In fact, it was not the priority.

So, today, will you assert before this subcommittee that all decisions by BP employees related to the Deepwater Horizon reflected your priority—your priority—of safety first?

Mr. Chairman, the disaster in the Gulf of Mexico shows the consequence of a series of unchecked bad decisions. We in Congress and the Federal Government must also be mindful of the con-

sequences of bad decision-making. At a field hearing last week in Chalmette, Louisiana, the subcommittee heard some of the administration's decisions are threatening the livelihoods of workers and families who depend upon the energy industry. We have killed half of their fishing with the Deepwater Horizon spill, and it looks like we are going to kill the other half of their economy with our moratorium.

Our hearing today looks at the consequence of bad decisions and the lessons learned. May we have the wisdom and humility to take some of those lessons and apply them to ourselves.

And I will yield back the balance of my time.

[The prepared statement of Mr. Burgess follows:]

Opening Statement of the Honorable Michael Burgess
Ranking Member, Subcommittee on Oversight and Investigations
The Role of BP in the Deepwater Horizon Explosion and Spill
June 17, 2010

Thank you Chairman Stupak. Today we hold our third and very critical hearing in this Subcommittee's ongoing investigation of the tragic Deepwater Horizon explosion and oil spill, which continues to wreak economic and environmental havoc on our Gulf Coast.

This hearing provides the Subcommittee an important opportunity to question directly the man who ultimately leads BP, Mr. Tony Hayward, the company's Chief Executive Officer. And BP's role has been central to the causes of the incident and the response.

Over the course of our inquiry to date, Committee investigators working in a bi-partisan fashion have conducted numerous interviews and briefings, and reviewed tens of thousands of pages of documents. I am especially proud that this subcommittee has been focused on gathering the facts and not rushing to judgments or looking for cheap political sound-bites. And from this intensive effort, we have begun to identify a number of serious questions

about BP's decision-making leading up to the disaster. Exploring these and related questions today will help us identify for Congress and the American people what went wrong on April 20 and the days thereafter.

While we are still investigating, a picture of the chain of events leading to this incident is emerging. Mr. Chairman, you and Chairman Waxman recently outlined some critical questions to be addressed by Mr. Hayward. For example, you noted the investigation has identified questionable choices by BP engineers to use a particular well design over another one that would appear to have provided more built-in barriers to gas flowing uncontrolled up the well.

There was the choice made by BP to move forward with what appears to be an inadequate cementing plan and the related failure, despite clear warnings, to test that the cement was properly set and in place. And it appears there may have been a rush to move off of this well. Whether there may have been economic or other time- or performance-pressures, or some combination, it is not quite clear.

The questions arising from our investigation outline the central role BP's decision-making appears to have had in this incident. We need to

understand this decision-making, what factors influenced it, and whether decisions reflected a management and operational mindset that failed to maximize safety in the challenging deep sea environment.

It is important to note the picture developing from this investigation is not one of technological limits in deep sea drilling; the construction of this 18,000 foot well was not pushing the envelope of engineering know-how so far as we have identified.

The picture developing is not one of unsafe industry practices, although clearer, more focused industry standards may be in order going forward. Available evidence suggests use of best industry practices would have resulted in more cautious designs and testing, more safeguards to minimize any loss of control.

Rather, and quite clearly, the picture developing from our investigation is one of questionable decision-making – decision-making by people charged with designing and successfully drilling, constructing, and controlling a well that was a mile underwater. It is a picture composed of a series of choices, which, taken together, created an oil well particularly vulnerable to a

blowout, and of people who may have been distracted, unaware, or resistant to the problems developing below them.

Documents show that BP was prepared to run a test on the quality of the cement job securing the well, but chose not to when unrelated drilling measurements looked okay. I cannot understand why, given the history of this particular well, with four previous well-control incidents in the two months prior to April 20, the rig personnel appeared to take their eye off the ball.

BP employees were key decision-makers. Certainly others – contractors, subcontractors, and federal regulators – may have contributed to the incident. The role of the federal government especially, including in the overall effectiveness of the response and efforts to help those harmed by this incident, remains a critical piece that we must pursue to ensure a competent investigation.

But it is BP decision-making about the well design, the cementing program and preparation, the integrity tests – or lack there of – the failure to follow certain best practices, that our investigation to date is showing were critical factors in this incident.

But this decision-making is difficult to square with the avowed priorities of BP's Chief Executive. Mr. Hayward, in an interview before you became chief executive, you described how the death of a worker on an operation you were leading in Venezuela shaped your opinions. You said; "I went to the funeral to pay my respects. At the end of the service, his mother came up and beat me on the chest. 'Why did you let it happen?' she asked. It changed the way I think about safety. Leaders must make the safety of all who work for them their top priority."

Mr. Hayward, I respectfully request you answer this question in your opening statement, if not for me, then for the widows of the 11 men lost on Deepwater Horizon:

You have been the BP chief executive since 2007. You said safety is your number one priority and would focus on it like a laser beam. As an effective Chief Executive, one would expect your directives and priorities would be carried out by your employees. We have now learned from this investigation that BP employees made five critical decisions that may have contributed to well failure where safety was traded off – it was not the priority.

Will you insist before this Subcommittee today that all decisions by BP employees related to Deepwater Horizon reflected your priority of safety-first?

Mr. Chairman, the disaster in the Gulf of Mexico shows the consequences of a series of unchecked, bad decisions. We in Congress and the federal government must also be mindful of the consequences of bad decision-making. At a field hearing last week in Chalmette, Louisiana, the Subcommittee learned that some of the Administration's decisions are threatening the livelihoods of workers and families who depend on the

energy industry. Our hearing today looks at the consequences of bad decisions and the lessons learned; may we have the wisdom and humility to take some of those lessons and apply them to ourselves.

Mr. STUPAK. Thank you, Mr. Burgess.

I would next like to turn to the chairman of the Energy and Environment Subcommittee and chairman of the Select Committee on Climate, Mr. Markey, 5 minutes for an opening statement, please.

OPENING STATEMENT OF HON. EDWARD J. MARKEY, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF MASSACHUSETTS

Mr. MARKEY. Thank you, Mr. Chairman, very much.

I want to begin by disagreeing in the strongest possible terms with what Mr. Barton said in his opening statement.

Not only is the compensation fund that was created yesterday at the White House in an agreement reached between BP and President Obama not a slush fund and not a shakedown; rather, it was the Government of the United States working to protect the most vulnerable citizens that we have in our country right now, the residents of the gulf. It is BP's spill, but it is America's ocean and it is American citizens who are being harmed.

We cannot wait, as unfortunately so many citizens who were victims of the Exxon Valdez spill had to wait years in order to see those families compensated. We can't lose sight of the fact that the 1984 Bhopal disaster and the lawsuits that were related to it were only settled last week. We have to ensure that the citizens of the gulf are protected.

In a hearing which this subcommittee conducted in New Orleans last Monday, we heard from a fisherman who brought absolutely impeccable records which proved that he and his family had made $27,000 last May. And, after examining the documents, BP gave the family $5,000.

The families in the gulf will be crushed financially unless this compensation fund is put into place. As each day and week and month goes by, the history of these families are going to be altered, and permanently altered, unless they are given the financial capacity to take care of their loved ones, their children, their families.

That is why this compensation fund is so important. That is why it is not a slush fund. That is why it is not a shakedown.

It is, in fact, President Obama ensuring that a company which has despoiled the waters of our Nation is made accountable for the harm which is done to our people—a company which said for the first week that it was only 1,000 barrels of oil per day, when we now know that they knew it was at least 1,000 to 14,000 barrels; a company which continues to deny that there are underwater toxic plumes; a company which has not been providing the proper protective gear for the workers in the gulf; a company which contended it could respond to a spill of 250,000 barrels per day.

No, this is not a shakedown of their company. This is the American Government, President Obama ensuring that this company is made accountable and sending a signal to all other companies that seek to treat ordinary American families in a way that can destroy their entire family's history.

This is, in my opinion, the American Government working at its best. This is creating truly the kind of partnership between the public and private sector that can make sure that innocent victims

are not roadkill as a result of corporate plans that did not actually factor in the harm that can occur to ordinary families.

So I just could not disagree more strongly. I think that this is, in my opinion, one of the most important hearings that this Congress will ever have, because it is sending a signal to any corporations out there, including the ones that testified on Tuesday that all admitted that they had no plans either to respond to the harm which could be done in the gulf if one of their rigs had the same kind of catastrophic event, that they will be made accountable.

So I thank you, Mr. Chairman, for holding this hearing.

And I thank you, Mr. Hayward, because yesterday was the day where the page began to be turned and we moved to a new era where, in fact, your company is made accountable and the citizens of the gulf are made whole.

Thank you, Mr. Chairman.

Mr. STUPAK. Thank you, Mr. Markey.

I next turn to Mr. Sullivan for an opening statement. Three minutes, please, sir.

OPENING STATEMENT OF HON. JOHN SULLIVAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OKLAHOMA

Mr. SULLIVAN. Chairman Stupak, thank you for holding this hearing today.

On April 20, 2010, a fire and explosion occurred on the British Petroleum-Deepwater Horizon oil rig in the Gulf of Mexico. This terrible disaster resulted in the loss of 11 lives and injured many more members of the 126-person crew.

There is no question that the BP oil spill is a tragedy. In fact, it is the worst environmental disaster in our Nation's history. I believe we must do everything in our power to cap the leak, find out what caused the explosion, and ensure nothing like this ever happens again.

BP must bear the entire financial burden for this disaster, and the American taxpayer should not be on the hook for a dime.

According to the Occupational Safety and Health Administration, there is mounting evidence that BP has one of the worst safety records of any major oil company operating in the United States. To this end, I am looking forward to examining with Mr. Hayward whether there is a deficient safety culture at BP that led to this disaster and other recent ones, including the BP refinery explosion in 2005 in Texas City, Texas, and a BP pipeline spill in 2007 which released 200,000 gallons of oil into the Alaskan wilderness.

Mr. Hayward, why is BP's record on safety so spotty?

What is equally as important as our efforts to combat the spill is the knee-jerk legislative reaction from this Congress. Right now, the administration and their allies in the House are more focused on the politics of putting the oil and gas industry out of business than on solutions to the problem.

Instead of working in a bipartisan way to push for rigorous safety standards on all offshore rigs, the administration is exploiting this disaster to advance this disastrous cap-and-trade energy policy, which won't stop the well from leaking but, rather, will only

serve as a national energy tax on the American people, crippling our economy and making the unemployment lines longer.

I believe Congress should work towards implementing rigorous safety inspection standards for all offshore rigs, but with nearly 30 percent of our Nation's oil and 11 percent of our gas reserves located offshore, a ban on offshore drilling will only put Americans out of work. And it will send energy and gas prices through the roof and increase our reliance on foreign, imported oil.

We still have work to do to uncover exactly what went wrong, and many questions remain on the ongoing efforts to contain the leak. This tragedy should not be used as an excuse to roll back the gains we have made in finding new ways to develop our energy resources, as we will need more oil and natural gas to meet the crucial needs of our Nation.

And I yield back the balance of my time.

Mr. STUPAK. Thank you, Mr. Sullivan.

Next we would like to hear from the chairman emeritus of the Energy and Commerce Committee, Mr. Dingell of Michigan, for 5 minutes, please, sir.

OPENING STATEMENT OF HON. JOHN D. DINGELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. DINGELL. Mr. Chairman, I commend you for holding this important hearing today.

We sit here on day 59 of the worst environmental disaster in the history of this country. Eleven people are dead. The already-fragile economy of an entire region is in real danger of shattering. We will be feeling the environmental consequences for years to come.

And God Almighty alone knows what the health and environmental effects of the containment and cleanup strategies will be—millions of gallons of chemical dispersants and controlled burns. Sadly, we can't even get a decent estimate of the amount of oil and gas that is spewing out into the water.

BP has been before this committee many times, and rarely has it been a pleasant meeting, because invariably they have appeared here to defend serious failures on the part of the company. The company has a history of cutting corners, apparently for the almighty dollar.

Texas City, they paid there $50 million in criminal fines. Alaska's North Slope, which was investigated by this subcommittee, where a pipe corroded, allowing 1 million liters of oil to spill. In each instance, we were hoping, but the assurances given by BP that this would not happen again have been, regrettably, untrue.

In reference to a decision on how to secure the final 1,200 feet of the well, a single casing, or tieback, a BP engineer said, "Not running the tieback saves a good deal of time and money."

In reference to installing more centralizers, BP's well team leader said, "It will take 10 hours to install them. I do not like this. I am very concerned about using it." So, also, were we.

On the same matter, BP's operations drilling engineer said, "Even if the hole is perfectly straight, a straight piece of pipe even in tension will not seek the center of the hole unless it has something to centralize it." And I want you to listen to this. "But who

cares? It is done. End of story. It will probably be fine"—and note the word "probably"—"and we will get a good cement job. I would rather have to squeeze than get stuck. So guard right on the risk-reward occasion."

Mr. Chairman, the comments of our witness today reveal little sorrow for the events that have occurred. And here he said, "The Gulf of Mexico is a very big ocean. The amount of volume of oil and dispersant we are putting in is tiny in relation to the total water volume." And then, "The environmental impact of the disaster is likely to be very, very modest." I wonder if he wishes to stand on that statement today.

When Mr. Hayward responded to the claims that cleanup workers were becoming ill because of oil fumes and such, he said this: "Food poisoning is clearly a big issue."

And, finally, most famously, Mr. Hayward informs us he "wants his life back."

Last year, Mr. Hayward enjoyed a splendid 41 percent pay raise, even as BP's profits dropped 45 percent. Now, I just happen to be a poor Polish lawyer from Detroit, but it seems to me that this is a curious response to a drop in profits. It makes me wonder what the compensation package of our witness will be this year.

Mr. Chairman, again, I thank you for your diligence and hard work on this issue. I look forward to hearing from our witnesses today and look forward to working with you on this matter. Thank you.

Mr. STUPAK. Thank you, Mr. Chairman.

Next, Mrs. Blackburn for an opening statement, please.

OPENING STATEMENT OF HON. MARSHA BLACKBURN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Mrs. BLACKBURN. Thank you, Mr. Chairman. I thank you and Ranking Member Burgess for holding the hearing today.

Mr. Hayward, I thank you for your willingness to testify before this committee.

You know, when news of the BP spill began and information about the well started to circulate, it seemed that there were problems not only with BP but also with the MMS bureaucracy and that maybe the problem lay there, rather than with anything that could have gone wrong with BP, that it was there with MMS.

What we have learned and confirmed is that that is not correct, that the problem does lie with BP in what went wrong. And while there are many faults with MMS in doing its job on inspection and safety oversight, most of the data now points to wrong decision-making by BP's management.

And this is not the first time—and we have talked about that in several of our opening statements this morning—it is not the first time that you have been before this committee on safety problems. And, certainly, as recently as the Texas 2005 and Alaska 2007 incidents, which revealed insufficient protocols in BP's management and safety hierarchy, there was this statement from BP that you all would, quote/unquote, "focus like a laser on safety."

And it is concerning to us that the appearance is, Mr. Hayward, that BP has not learned from previous mistakes. So it leaves us

asking the questions of you and of BP: Was this accident caused by negligence? It was caused by risk-taking? Was it caused by cost-cutting measures by BP decision-makers?

And, unfortunately, for citizens, beaches, and wildlife all along the coastal region, they are paying a price for those misplaced decisions. BP cannot blame Mother Nature or equipment failure or even other subcontractors. Their actions have put at risk the livelihood of communities and businesses that depend on the gulf not only for seafood and tourism but also energy production that this Nation as a whole relies upon.

In addition, the current administration also shares a significant portion of the blame for the oil spill. I mentioned MMS earlier. And the MMS officials approved inadequate spill response plans, and field inspectors rubber-stamped inspection papers submitted by oil companies. This is another area where we, as Members of Congress, in doing our due diligence, will ask you all and MMS why.

But what is the most damaging is that the President and senior officials knew on day one the blowout preventer was not working and knew of the potential spillage. While BP shoulders much of the responsibility for this spill, the lack of effort by this administration to contain the spill has doomed the economy and wildlife of the gulf coast from an oil spill which could have been contained.

And now, recently imposed drilling moratoriums will further devastate America's energy production and will destroy hundreds of thousands of jobs in the gulf coast region.

Thank you for being with us today.

Mr. Chairman, I yield back the balance of my time.

Mr. STUPAK. Thank you.

We will next turn to the vice chairman of the subcommittee, Mr. Braley, for an opening statement. Three minutes, please, sir.

OPENING STATEMENT OF HON. BRUCE L. BRALEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Mr. BRALEY. Thank you, Mr. Chairman.

Mr. Hayward, you are not going to get a lecture from me today, and you are not going to get an apology either, because we are here to get to the bottom of the decision-making process that BP followed, and I think, quite frankly, the people who live along the affected area of the gulf coast deserve those answers from you.

We were in Chalmette, Louisiana, last week, and we had the opportunity to hear from a variety of individuals whose lives have been devastated by this oil disaster. And I use the word "disaster" specifically because I don't think "spill" quite captures the magnitude of what is going on.

The American people are frustrated because we were first told that this was a 1,000-barrel-per-day release, and then about a week later that was updated to 5,000 barrels per day, and then at the end of May it was adjusted upward to 15,000 to 19,000 barrels per day, and then this week we were informed that it could be as high as 60,000 barrels per day. That works out to 2.5 million gallons a day, 17.5 million gallons per week. And over the length of this disaster, it could be up to the level of the largest release of oil in the North American continent in history, unintended.

One of the things I think we need to know about today is the decisions that your company made and who made them that led to this explosion and the subsequent disaster, what your company is doing to fix this enormous problem, and about your future commitments to all of the affected workers, families, and communities who have been devastated by this disaster.

And I think it would be helpful for you and everybody in this hearing room to hear from the two women who testified at our hearing in Louisiana last week, because they raised some very pointed questions that were directed to your company, sir. And they were questions that were raised after they gave passionate testimony of wanting the oil and gas business to continue in Louisiana and the gulf coast region.

So I would like to have you listen to their comments in the hearing. This is Natalie Roshto.

[Video played.]

Mr. BRALEY. These are now widows with small children to take care of, and they are the symbols and the faces of this disaster.

And I look forward to your testimony.

I yield back the balance of my time.

Mr. STUPAK. Thank you.

We will next turn to Mr. Gingrey from Georgia for a 3-minute opening statement, please.

OPENING STATEMENT OF HON. PHIL GINGREY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

Mr. GINGREY. Thank you, Mr. Chairman.

First, I want to again express my sorrow to the families of those who lost their lives on April the 20th, 2010.

Through all the hearings and legislative consideration, we must remember those lives and the lives of their families, as we just saw, that were forever changed on that fateful April day. And we certainly must continue to keep them in our thoughts and in our prayers.

Further, we have an obligation, not only to those families but also to everyone affected by the aftermath, to get to the bottom of the causes of this accident and the failure to secure the situation and stop the devastation wreaked upon the gulf coast.

Mr. Chairman, we have an opportunity in this oversight hearing to ask questions that get to the facts of what happened. However, today's hearing is incomplete. We can only ascertain half of the story today because we do not have anyone representing the administration, the Minerals Management Service, to discuss their oversight role and their responsibility in ensuring that an accident like this didn't happen.

Deep-ocean drilling is not new. In fact, we have been doing it for decades in the gulf coast. Why did this happen now? I have heard some assert that it was the lax oversight of the previous administration that led to this accident. Well, if that is the case, why did this not happen during the last decade? Why did this occur almost a year and a half into the current administration?

We need to hear from our own Department of Interior and the Minerals Management Service. Certainly, Mr. Hayward should be prepared to answer for BP's responsibility, but we will also need

answers from the administration so that we can demand accountability and implement prudent reforms to return us to safe drilling in our oceans. Because simply saying "no" to further and new drilling is not a realistic answer.

I further realize there are some in this administration who have a penchant for not letting a crisis go to waste. But for a nation dependent on foreign oil, for a nation with unemployment hovering at 10 percent, we can't just say we can't do this. We can't take our ball and go home, when the consequences mean a weaker America. Everyone dependent on foreign fuels are all too inclined, it seems, to let jobs leave this country.

No, Mr. Chairman. We have to understand what happened on and leading up to April 20th. We need to answer those questions to determine if the rules or the agency oversight were insufficient or if this was purely an act of negligence or wanton disregard for sound regulations. Now, we can try to enact the perfect reform that ensures this never happens again, but it will not change the path or the toll upon the lives forever changed.

Mr. Hayward, the responsibility to make these families whole falls to you and your company, BP. You have an obligation to right this wrong, and not only the public trust but also the belief in the free market and entrepreneurship demand it.

And, Mr. Chairman, I await the opportunity to ask questions, with the hope that we will soon discuss these same matters with our own administration.

And I yield back.

Mr. STUPAK. Thank you, Mr. Gingrey.

Ms. DeGette for an opening statement, 3 minutes, please.

Ms. DEGETTE. Mr. Chairman, as this is an investigative hearing, I will submit my excellent opening statement for the record in order to have more time for questioning the witness.

Mr. STUPAK. Very well.

[The prepared statement of Ms. DeGette was unavailable at the time of printing.]

Mr. STUPAK. Mr. Doyle, opening statement?

OPENING STATEMENT OF HON. MICHAEL F. DOYLE, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF PENNSYLVANIA

Mr. DOYLE. Mr. Chairman, thank you for convening this hearing today so we can begin to understand what went so tragically wrong on the Deepwater Horizon.

We are now 59 days into this environmental and economic tragedy, and oil continues to gush into the Gulf of Mexico. The estimates for how much oil spills into the gulf each day continue to rise, and we still have no way to cap the well in the near future. We sit helplessly as we wait for a relief well to be completed.

As the details and facts about Deepwater Horizon come to light, it is clear to us all that the decisions made by officials at BP reflected bad judgment at best and criminal negligence at worst. Through this committee's investigation, we have learned that, at nearly every turn, BP cut corners. In well design, the number of centralizers they used, whether to run a cement bond log, circu-

lating drilling muds and securing the wellhead with a lockdown sleeve, BP took the path of least resistance.

On Tuesday, colleagues and competitors from the oil and gas industry provided sworn testimony that they believed BP had delinquencies in well design and failed to follow the best practices of the industry. Now we learn that BP had several warnings about the Macondo well, with one of their own engineers calling it a "nightmare well." But instead of treating the well with caution, it seems that BP's only interest was in completing the well quickly and cheaply.

Many questions still need to be answered. Were BP employees on the Deepwater Horizon given orders from BP officials to speed up the Macondo well? Were they told to slash costs wherever possible? Why would a team onboard the rig that tests the cementing of the well be sent home before performing the test? Surely if a cement bond log was ever necessary, it would be in a "nightmare well" situation. But sending the team home, BP saved $100,000 and 9 or 10 hours of work.

Mr. Hayward, I hope you are here today to answer questions about the decision made on Deepwater Horizon that led to this tragic and deadly blowout. Earlier this week, this committee sent you a letter with detailed information about topics we would like you to address today. In reviewing your statement submitted for today's hearing, I am extremely disappointed in your avoidance of the requested topics. I certainly hope that you use the opportunity today to answer our questions openly and truthfully.

I know BP has committed to clean up the gulf region, and I expect that commitment to be ongoing. I welcome your pledge to pay damages through a $20 billion escrow fund. But that is just the tip of the iceberg. Rebuilding the public's trust in your company and your industry will take years and many serious changes in the way you do business.

When you operate on our land and in our waters, you are only there because the public's trust has allowed you to be there. You violated that trust in the worst possible way.

Mr. Hayward, I look forward to your testimony. I look forward to your answers to our questions and your ongoing efforts to regain America's trust.

Mr. Chairman, I yield back.

Mr. STUPAK. Thank you, Mr. Doyle.

Mr. Griffith for an opening statement, 3 minutes, please.

OPENING STATEMENT OF HON. PARKER GRIFFITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALABAMA

Mr. GRIFFITH. Thank you, Mr. Chairman and Ranking Member, for calling this important hearing today and, Mr. Hayward, for taking time to come before our subcommittee to discuss what happened on the Deepwater Horizon.

I know that, like us, your number-one priority is stopping the flow of oil. Congress and this committee owe it to the American people to do whatever we can to aid the unified command in reaching this goal. This is a time for engineering and action, and I hope you will let us know what we can do in Congress to be helpful.

There are still many questions to be answered about what happened on the Deepwater Horizon, and unfortunately we do know that, from the documents that we are reviewing, it does not look good.

My hope for our hearing today is that we will be able to put political public-relations shenanigans aside and focus on understanding why decisions were made and how BP and the industry can ensure that they learn from this incident so that drilling safely for our valuable resources can continue.

And I might say this to you: You are never as good as they say you are or as bad as they say you are. So this hearing will go back and forth.

The other thing I would like to remind the committee is that the greatest environmental disaster in America has been cigarettes. Sixty thousand Americans this year will die from cigarette-related cancer. So if we are going to talk about the environment, let's be sure we don't leave that out. I am a cancer specialist, by the way, by training, and I never fail to bring that up.

So the environment is an important concept. We regret the loss of life. But there is much that we can do and we will put this in perspective. This is not going to be the worst thing that has ever happened to America.

Thank you.

Mr. STUPAK. Ms. Schakowsky, 3 minutes opening statement, please.

OPENING STATEMENT OF HON. JANICE D. SCHAKOWSKY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Ms. SCHAKOWSKY. Thank you, Mr. Chairman.

At this very moment oil is gushing from the Deepwater Horizon blowout at a rate between, we learned, 35,000 and 60,000 barrels a day, killing animals, destroying fragile wetlands, and wiping out entire populations of fish, and along with it the jobs of hundreds of thousands of people.

Most upsetting about this travesty is that it could have been avoided. As the ongoing investigation by this committee has already discovered, BP executives created an atmosphere where safety concerns were ignored in order to ensure that the company's already staggering profits this year, approximately $93 million a day in the first quarter, continued unabated. This appalling disregard for the Gulf Coast and its inhabitants is without question one of the most shameful acts by a corporation in American history.

Sadly, the Deepwater Horizon spill is just the most significant example of BP's disregard for the environment and the well-being of its workers. A report published by the Center for Public Integrity found that between June 2007 and February 2010, BP received a total of 862 citations from the Occupational Safety and Health Administration. Of those, a staggering 760 were classified as being egregious and willful, compared with 8 at the 2 oil companies tied for second place.

Inexcusably this pattern of behavior continued in the spill's aftermath. I hold in my hand a document called Voluntary Waiver of Release that BP made unemployed fishermen sign before they

could be hired for spill cleanup. The waiver states, I hereby agree on behalf of myself and my representatives to hold harmless and to indemnify and to release, waive and forever discharge BP Exploration Production, Inc., from all claims and damages that I or my representatives may have with regard to my participation in the spill response activities.

I know that you said this was an early misstep and that this was just a standard document, but this was a first response that you had to people that were hired. And outrage does not begin to express my feeling. These are people who are unemployed because of the recklessness of BP, forced to take jobs cleaning up BP's mess in order to survive, yet to qualify for those jobs they had to hold BP harmless for any further damages that they may suffer in BP's employ. This from a company that made $93 million a day.

Fortunately, a court trumped your fancy lawyers who wrote this document, but still it begs the question, how could you do that?

I am glad that you are here, Mr. Hayward. I expect you to explain why your company has operated in such a wholly unacceptable manner. In the final analysis, the simple fact remains that if BP had thought more about the residents, as these widows said, and the workers, as these widows said, rather than the already exorbitant profits of its shareholders, we would not be here today.

I yield back.

Mr. STUPAK. Mr. Latta for an opening statement, 3 minutes, please.

OPENING STATEMENT OF HON. ROBERT E. LATTA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. LATTA. Thank you, Mr. Chairman, Ranking Member Burgess. I want to thank you for holding this subcommittee hearing on the role of BP in the Deepwater Horizon oil rig explosion and the ongoing oil spill in the Gulf of Mexico.

First and foremost, I also want to extend my heartfelt condolences to the families of those who have lost loved ones and to those who have been injured. The unprecedented scale of the spill and its increasing harmful impact on the gulf economy and environment demand a thorough investigation of BP's actions and inactions, as well as BP's current and future plans.

The flow of oil must be stopped. Every day anywhere from 35,000 to 60,000 barrels are spilling into the gulf, and only 15,000 barrels a day are being captured. The environmental effects on the oil spill are harming shorelines and coastal wetlands, fisheries and fishery habitat, as well as marine mammals and sea turtles. What is worse, we will not fully know the ecological ramifications of the oil spill until years down the road. Furthermore, local businesses suffering great losses, including jobs and revenues that are dependent on tourism, are being threatened.

The NOAA announced a revised commercial recreation fishing closure in the oil-affected portions of the Gulf of Mexico, accounting for 33 percent of the Gulf of Mexico's exclusive economic zone. As oil continues to flow, this area is sure to enlarge, further exasperating the economic damage. A recent economic impact study by the American Sportfishing Association indicated that the entire Gulf Coast will close to recreational fishing from May through Au-

gust. The region will lose $1.1 billion in revenue, which supports 2.5 billion in total sales, 1.3 billion value added, 811.1 million income and 18,785 jobs. This potential economic damage is devastating to an area that has already suffered greatly from the aftermath of natural disasters.

Americans continue to be frustrated at the lack of management and solutions from all parties involved, and I am interested to hear more about the coordinated efforts between BP and the administration. The economic and environmental magnitude of this disaster necessitates a clear understanding of what went wrong, and BP needs to be held accountable for the disaster.

I also look forward to having MMS and the Department of Interior before this subcommittee to also—for them to answer some tough questioning.

I look forward to hearing Mr. Hayward's testimony, and I yield back the remainder of my time. Thank you.

Mr. STUPAK. Thanks, Mr. Latta.

[The prepared statement of Mr. Latta follows:]

Congressman Robert E. Latta
The Committee on Energy & Commerce
Subcommittee on Oversight and Investigations
Opening Statement – For the Record
June 17, 2010

MR. CHAIRMAN; RANKING MEMBER BURGESS: Thank you for holding this subcommittee hearing on the role of BP in the Deepwater Horizon oil rig explosion and the ongoing oil spill in the Gulf of Mexico. First and foremost, I want to extend my heartfelt condolences to the families of those who have lost loved ones, and to those who have been injured. The unprecedented scale of the spill, and its increasingly harmful impact on the Gulf economy and environment, demand a thorough examination of BP's actions and inactions as well as BP's current and future plans.

The flow of oil must be stopped. Each day anywhere from 35,000 to 60,000 barrels are spilling into the Gulf, and only 15,000 barrels a day are being captured. The environmental effects of the oil spill are harming shorelines and coastal wetlands, fisheries and fisheries habitat, as well as marine mammals and sea turtles. What is worse, we will not

fully know the ecological ramifications of the oil spill until years down the road.

Furthermore, local businesses are suffering great losses, including jobs and revenues that depend on tourism that are being threatened. NOAA announced a revised commercial and recreation fishing closure in the oil-affected portions of the Gulf of Mexico amounting to 33% of the Gulf of Mexico exclusive economic zone. As oil continues to flow, this area is sure to enlarge, further exacerbating the economic damage.

A recent economic impact study by the American Sportfishing Association indicated that if the entire Gulf were closed to recreational fishing from May through August, the region would lose $1.1 billion in revenue, which supports $2.5 billion in total sales, $1.3 billion in value added, $811.1 million in income and 18,785 jobs. This potential economic damage is devastating to an area that has already suffered greatly from the aftermath of natural disasters.

Americans continue to be frustrated with the lack of management and solutions from all parties involved, and I am interested to hear more about the coordinated efforts between BP and the Administration. The

economic and environmental magnitude of this disaster necessitates a clear understanding of what went wrong and, and BP needs to be held accountable for the disaster.

I also look forward to having MMS and the Department of Interior appear before this subcommittee to also answer tough questioning.

I look forward to hearing Mr. Hayward's testimony and I yield back the remainder of my time.

Mr. STUPAK. Mr. Ross, 3 minutes opening statement, please, sir.

OPENING STATEMENT OF HON. MIKE ROSS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARKANSAS

Mr. ROSS. Thank you, Chairman Stupak, for holding today's hearing to examine BP's actions and decisions that directly led to the tragic explosion and oil spill that continues to gush and wreak havoc on the Gulf Coast at a rate up to over 1,700 gallons per minute. In fact, Mr. Hayward, since this hearing began a little over an hour ago, up to 112,847 gallons have been dumped into the gulf.

On day 59 of this environmental and economic disaster, with up to 60,000 barrels a day spilling into the gulf, I continue to be frustrated and downright angry by BP's response and lack of a clear and productive plan to stop the leak or efficiently clean up the oil that is destroying the ecosystems that surround the gulf.

Reports have surfaced revealing that in the days and weeks before the explosion, BP knowingly made a number of decisions that increased the danger of an explosion and spill occurring. It seems apparent that BP put profit before safety. Many people are dead; millions of gallons of oil continue to spew into the gulf. I am hopeful that Mr. Hayward can explain today why these decisions were made, how his company's actions led to this disaster, and what they are doing to remedy it.

As oil floats into the marshes and onto the beaches, as shrimping vessels sit tied to docks, as restaurants and businesses during their peak season remain without tourists and customers, and as homeowners see their property values plummet, the people and wildlife of the Gulf Coast wait and wonder about how extensive the damage to the ecosystem or the economy will be.

This spill is not only affecting the Gulf Coast, the jobs and economies of the surrounding States are hurting as well. My State of Arkansas borders Louisiana, and many of my constituents, people I know in my hometown, work on offshore rigs. These jobs are also at risk, and I hope BP will take responsibility for all those who are affected by this spill, regardless of where they live, and work to help pull them through this disaster as well.

This bill is a wake-up call that must result in better government oversight, more advanced technology, stronger response plans and improved safety standards not only by BP and every oil company in America, but also by our government. Above all, this disaster is a learning experience that will help us prevent a tragedy like this from ever happening again, and I am hopeful this hearing can provide the answers and solutions necessary to begin that process.

Mr. Hayward, I truly hope that you will give us open and honest answers today and not those prepared by your legal team.

With that, Mr. Chairman, I yield back.

Mr. STUPAK. I would next like to call on Mrs. Christensen of the Virgin Islands for an opening statement, please.

OPENING STATEMENT OF HON. DONNA M. CHRISTENSEN, A REPRESENTATIVE IN CONGRESS FROM THE VIRGIN ISLANDS

Mrs. CHRISTENSEN. Thank you, Mr. Chairman, and thank you for holding this important hearing.

The explosion on the Deepwater platform and the subsequent outpouring of hundreds of thousands of gallons of oil into one of the most sensitive and important bodies of water in their country is indeed a tragic accident which caused 11 deaths, many injuries and will have deep, longlasting, debilitating and expensive repercussions. The people of this country need to know what happened and who is responsible.

All that has transpired since April 20 says to me that not only BP, but no company that is drilling anywhere in our Outer Continental Shelf is prepared to deal with a spill at this depth. They are all there applying the best efforts, using the best available technology, and still 59 days later an end is not in sight. This is not acceptable.

What has also become clear is that while BP repeatedly used shortcuts, they were warned not to, which may have turned out to have caused the explosion, the deaths, injuries and the devastating spill. They are not the only ones at fault. They could not have cut some of those corners without the complicity of employees at some of the responsible government agencies who did not do their job.

We are all appalled that lives are lost by decisions made apparently in the interest of cutting costs, but also by the lack of adequate preparation for this worst-case scenario that we are facing today.

The fact that the industry did not ensure that response technology kept pace with deeper drilled wells lays blame at all of their feet, but we still cannot ignore the decisions made by BP, which, if they had been different, 11 people might still be alive today.

We as a Congress, along with our President, who has had more than his share of crises that are not of his making, have some major challenges and critical decisions ahead. I hope in the name of the 11 who died, the many more who were injured, the affected families, and those who now depend on OCS platforms for their livelihood that this and all of the hearings will help us to go beyond a knee-jerk reaction to do the right thing for the region and our country; that BP and any other responsible party will be held fully accountable and responsible; and that the petroleum and natural gas companies learn important lessons to ensure this does not happen again.

I want to thank you, Mr. Hayward, for being here. I look forward to your full testimony and the answers to the questions we will ask on behalf of the people of the region and on behalf of the American people.

I yield back, Mr. Chairman.

Mr. STUPAK. Thank you.

Mr. Welch, opening statement, please.

OPENING STATEMENT OF HON. PETER WELCH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VERMONT

Mr. WELCH. Thank you, Mr. Chairman.

Mr. Hayward, in the 59 days since the Deepwater Horizon explosion caused this extraordinary environmental catastrophe and economic catastrophe, we have heard time and again from BP that this was an aberration. The facts regrettably tell a very different story.

In 2005, when BP's Texas City operation blew up, 15 workers lost their lives. In 2006, a BP oil pipeline in Texas ruptured and spilled 200,000 gallons of crude oil. In 2007, the year you became CEO, the BP Corporation settled a series of criminal charges—not civil charges, criminal charges—and paid $370 million in fines.

And according to RiskMetrics, independent organization, BP has one of the worst health, environment and safety records of any company in the world. And in only 1 year, the Occupational Safety and Health Administration, OSHA, found more than 700 violations at BP's Texas City refinery, and BP paid a record $87 million in fines.

An independent review panel charged BP with putting profits before safety, and earlier this year a BP refinery in Toledo was fined $3 million for willful safety violations, including the use of valves similar to those that contributed to the Texas City blast.

And finally, of course, we have the Deepwater Horizon catastrophe, and the more evidence that comes in, the more it's clear that that event was foreseeable, and it was avoidable. After the explosion, the BP said there was no oil leaking. Then it said there was 1,000 barrels a day leaking. Then it went to 5,000 barrels. We are now up to 60,000 barrels.

For 59 days, Mr. Hayward, BP has told the American people that this was an aberration, that it was a singular occurrence, and that it wouldn't happen again. Mr. Hayward, it's not an aberration. For BP, regretfully, this is business as usual, it's déjà vu again and again and again.

And the question I think many of us have is whether a CEO who has presided over a company that has incurred $370 million in criminal fines; whose company, according to independent assessors, has one of the worst records in the world for safety and consistently puts money ahead of safety; whose peers, including Mr. Tillerson from Exxon Mobil, who testified from where you are 2 days ago they never—Exxon never would have drilled a well the way it did at BP Deepwater Horizon; and who, as CEO, has presided over the destruction of nearly $100 billion in shareholder value and the suspension of an annual $10 billion dividend; does that leader continue to enjoy and have a valid claim on the trust and confidence of his employees, his shareholders, the public regulators and, most importantly, the families and small businesses of the Gulf Coast, or is it time, frankly, for that CEO to consider to submit his resignation?

I thank you and yield back.

Mr. STUPAK. Thank you.

Mr. Green for an opening statement, please.

OPENING STATEMENT OF HON. GENE GREEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. GREEN. Thank you, Mr. Chairman.

Mr. Hayward, I appreciate your testimony and your being here this morning. And most people on this committee know I am a big supporter of Outer Continental Shelf drilling and domestic energy production. And I understand from your testimony and our other hearings we have held and meetings with the administration that efforts to cap the well are going as expeditiously as possible.

However, like many of my colleagues here, I am frustrated. I am frustrated that it has been almost 2 months, and we still have thousands of barrels of crude oil gushing into the Gulf of Mexico. I am frustrated by the threat of this disaster's impact on our wildlife and coastline. And I am particularly frustrated this single incident, one well out of thousands of successful wells of this type have been drilled, is threatening my constituents' livelihoods and the livelihoods of most of the communities on the Gulf Coast, literally from Alabama all the way back to Brownsville, Texas.

This disaster has caused the oil and gas industry in the Gulf of Mexico to shut down. Even if the moratorium does not last 6 months, it will be too late for many of these folks. But these people are not the ones to blame. They are the hardworking people with a work ethic like none other that take their responsibility on these rigs seriously.

However, according to the investigation of this subcommittee has conducted, it's obvious that several BP officials on and off the Deepwater Horizon rig did not take their responsibility of this rig seriously. Halliburton and many others warned BP officials that the decisions they were making were bad ones that could lead to serious trouble. And now people were losing their jobs because of a moratorium on drilling that could have been prevented if BP had not chosen expediency over safety, which brings me to my next point.

Whether it was the Alaskan pipeline disaster or the Texas City refinery fire where 15 people died, time after time it has been shown that BP chooses expediency over safety. Yet, Mr. Hayward, in your testimony you write that none of us knows why it happened. However, this subcommittee has uncovered five areas where BP made decisions that increased the risk of a blowout to save the company time and expense.

I added up the hours that these extra precautionary actions would have taken, and it comes to about 3 to 4 days. That's assuming that many of these actions would not have occurred simultaneously, which they know they could have. For an extra 3 days of work, men's lives would have been saved, and an industry record of safe and responsible production in the Outer Continental Shelf would still be in place, which brings me to my last point.

In your testimony, Mr. Hayward, you say that this incident calls into question whether the oil and gas industry can explore for oil and gas in safer and more reliable ways and what the appropriate regulatory framework for the industry should be. Mr. Hayward, the decisions made by a handful of BP individuals called this into question, not this accident, and you should take the responsibility for the workers who did nothing wrong and are now losing their jobs.

Mr. Chairman, I yield back my time.

Mr. STUPAK. Thank you, Mr. Green.

Ms. Sutton for an opening statement, 3 minutes, please.

OPENING STATEMENT OF HON. BETTY SUTTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Ms. SUTTON. Thank you, Chairman Stupak.

It's been nearly 2 months since the explosion of the Deepwater Horizon drilling rig resulted in the deaths of 11 workers and in-

jured additional workers. Since that time we have witnessed the worst environment disaster in our Nation's history, a disaster that continues to pour an estimated 60,000 barrels of oil a day into the Gulf of Mexico, a disaster that has led to over 66,000 victims filing claims to receive compensation.

Through this subcommittee's work, several alarming decisions by BP have come to light, decisions that were made to save money and time. It's unconscionable when companies pay more attention to their costs and their profits than to their own workers' safety and to our environment.

At our last hearing one witness from Transocean testified that a duplicate blowout preventer system cost roughly $15 million, a system not used on the Deepwater Horizon rig. BP also utilized a more risky option for steel tubing, saving at least $7 million. BP also did not fully circulate drilling mud or secure casing hangers between pipes of different diameters. And critical signals were brushed aside. When standard methods were not followed to center the steel pipe in the drill hole, one of BP's operations drilling engineers remarked in an e-mail, quote, "Who cares? It's done. End of story."

But these cut corners have been anything but the end of the story. As the workers and volunteers from around the country help clean up the oil from the disaster, many are becoming ill. Between April 22 and June 10, 485 of BP's own workers have been injured. The Louisiana Department of Health is reporting 109 illnesses in cleanup workers, and the money and time BP tried to save has long been lost as they have already paid $81 million in claims.

Mr. Hayward, like many Americans, I feel physically sick when I see the clips of the oil gushing in the gulf, witnessing the devastation of our waters and our coast and the wildlife, thinking about the lives of the workers killed, and hearing and seeing the pain in the faces and the hearts of the people, the families, the small businesses, the fishermen and others in the gulf, all consequences of this catastrophe.

This culture of carelessness and taking shortcuts to maximize profits at the expense of safety, this "come what may, we will cross that bridge when we come to it" attitude is unacceptable. It's outrageous.

BP must be accountable for the consequences of that approach, and we must take actions necessary on behalf of the American people to make sure that such a reckless approach will be forever abandoned. The risks and costs to our environment and to the workers in the Gulf Coast, to the workers throughout our economy, are simply too great to allow otherwise.

I yield back.

Mr. STUPAK. Thank you, Ms. Sutton.

That concludes the opening statements of all members of our subcommittee.

As I noted in the opening, as I noted in the opening, we have members of the full committee here. I would like to recognize them. They will be allowed to ask questions by order of seniority.

Mr. Inslee is here, a member of the committee; Ms. Castor is here; Mr. Gonzalez; Mrs. Capps; Ms. Harman; Mr. Weiner; Mr. Melancon; and Mr. Scalise.

I would like to comment that Mr. Melancon and Mr. Scalise are members of our committee. They also hosted us when we had a field hearing, the field hearing in New Orleans a few weeks ago, last week. And we had nine Members go down, one of the largest field hearings we have ever had. So you can see the interest in here.

I should also note that Ms. Jackson Lee is with us, not a member of the committee. She will not be allowed to ask questions, but we welcome her, and I know she has sat in on previous hearings we have had.

So let's move on with our first witness. Our first witness is Mr. Tony Hayward, who is the chief executive officer of BP PLC.

Mr. Hayward, it's the policy of this subcommittee to take all testimony under oath. Please be advised that you have a right under the rules of the House to be advised by counsel during your testimony. Do you wish to be represented by legal counsel?

Mr. HAYWARD. I do not.

Mr. STUPAK. OK. The committee also asks if you would have a technical person with you so you could consult if we have some questions that you want to run it by your technical person. Do you have a technical person with you?

Mr. HAYWARD. I do.

Mr. STUPAK. Could you state his name and position for the record, please?

Mr. HAYWARD. Mike Zangy, drilling engineer.

Mr. STUPAK. OK. At any time during the questioning, if you want to consult with that individual, please let us know. We will give you a moment to do so before you answer, but you would be the only one who could answer that question. Is that clear?

Mr. Hayward, I am going to ask you to please rise, raise your right hand and take the oath.

[Witness sworn.]

Mr. STUPAK. Let the record reflect the witness answered in the affirmative.

Mr. Hayward, you are now under oath. We would like to hear an opening statement from you. You may submit a longer statement, if you will, for the record.

But if you would, please, begin your opening statement, and let me state again, on behalf of all members of the committee, we appreciate your willingness to appear here today.

STATEMENT OF TONY HAYWARD, CHIEF EXECUTIVE OFFICER, BP PLC

Mr. HAYWARD. Chairman Waxman, Chairman Stupak, Ranking Members Barton——

Mr. STUPAK. If you will suspend, please, sir.

[Disturbance in hearing room.]

Mr. STUPAK. Before we begin with Mr. Hayward, let me again just mention those of you in our audience, emotions run high on this issue, but we have a hearing to conduct here. We are going to conduct our hearing; it's going to be done with proper decorum.

Mr. Hayward, when you are ready, we are going to start the clock over. You may begin.

Mr. HAYWARD. Chairman Waxman, Chairman Stupak, Ranking Member Barton, Ranking Member Burgess, members of the committee, I am Tony Hayward, chief executive of BP.

The explosion and fire of the Deepwater Horizon and the resulting oil spill resulting in the Gulf of Mexico——

Mr. STUPAK. Excuse me, Mr. Hayward. Could I ask you to pull that up? Some of the Members are having trouble hearing, probably over the clicking of the cameras. But if you could just pull it a little closer. Thank you.

Mr. HAYWARD. The explosion and fire aboard the Deepwater Horizon and the resulting oil spill in the Gulf of Mexico never should have happened, and I am deeply sorry that it did. When I learned that 11 men had lost their lives, I was personally devastated. Three weeks ago I attended a memorial service for those men, and it was a shattering moment. I want to offer my sincere condolences to their friends and families. I can only begin to imagine their sorrow. I understand how serious this situation is. It is a tragedy.

I want to speak directly to the people who live and work in the gulf region. I know that this incident has had a profound impact on your lives and caused great turmoil, and I deeply regret that. I also deeply regret the impact the spill has had on the environment, the wildlife, and the ecosystem of the gulf.

I want to acknowledge the questions that you and the public are rightly asking. How could this happen? How damaging is the spill to the environment? Why is it taking so long to stop the flow of oil and gas into the gulf?

We don't yet have all the answers to these important questions, but I hear and understand the concerns, frustrations and anger being voiced across the country, and I know that these sentiments will continue until the leak is stopped and until we prove through our actions that we are doing the right thing.

Yesterday we met with the President of the United States and his senior advisers. We discussed how BP could be more constructive in the government's desire to bring more comfort and assurance to the people of the Gulf Coast beyond the activity we have already done. We agreed in that meeting to create a $20 billion claims fund to compensate the affected parties and pay for the costs to Federal, State and local governments of the cleanup and environmental mitigation. We said all along that we would pay these costs, and now the American people can be confident that our word is good.

I have been to the Gulf Coast. I have met with fishermen, business owners and families. I understand what they are going through, and I promised them, as I am promising you, that we will make this right. After yesterday's announcement, I hope that they feel we are on the right track.

I am here today because I have a responsibility to the American people to do my best to explain what BP has done, is doing, and will do in the future to respond to this terrible accident.

First, we are doing everything we can to secure the well and in the meantime contain the flow of oil. We are currently drilling two relief wells. We believe they represent the ultimate solution. We expect this to be complete in August.

Simultaneously we have been working on parallel strategies to minimize or stop the flow of oil. While not all of them have met with success, it appears that our latest containment effort is now containing about 20,000 barrels a day. By the end of June, we expect to have equipment in place to handle between 40- and 50,000 barrels a day, and, by mid-July, between 60- and 80,000 barrels a day.

Second, I have been clear that we will pay all necessary cleanup costs. We have mounted what the Coast Guard has recognized as the largest spill response in history. We have been working hard on the leadership of the unified command to stop the oil from coming ashore, and while we are grateful these efforts have reduced the impact of the spill, any oil on the shore is deeply distressing. We will be vigilant in our cleanup.

Third, as I have made clear from the beginning, we will pay all legitimate claims for losses and damages caused by the spill. Those are not just words. We have already paid out more than $95 million, and we have announced an independent claims facility headed by Ken Feinberg to ensure the process is as fair, transparent and rapid as possible.

Fourth, we need to know what went wrong so that we as a company and we as an industry can do better. That is why, less than 24 hours after the accident, I commissioned a nonprivileged investigation. I did it because I wanted to know what happened, and I want to share the results.

Right now it's simply too early to say what caused the incident. There is still extensive work to do. A full answer must await the outcome of multiple investigations, including the Marine Board.

To sum up, I understand the seriousness of this situation and the concerns, frustrations and fears that have been and will continue to be voiced. I know that only actions and results, not mere words, ultimately can give you the confidence you seek.

I give my pledge, as the leader of BP, that we will not rest until we make this right. We are a strong company, and no resources will be spared.

We and the entire industry will learn from this terrible event and emerge stronger, smarter and safer. Thank you.

Mr. STUPAK. Thank you, Mr. Hayward.

[The prepared statement of Mr. Hayward follows:]

United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Oversight and Investigations
Tony Hayward
Chief Executive, BP plc
June 17, 2010[1]

Chairman Stupak, Ranking Member Burgess, members of the Subcommittee. I am Tony Hayward, Chief Executive of BP plc.

The explosion and fire aboard the Deepwater Horizon and the resulting oil spill in the Gulf of Mexico never should have happened — and I am deeply sorry that they did. None of us yet knows why it happened. But whatever the cause, we at BP will do what we can to make certain that an incident like this does not happen again.

Since April 20, I have spent a great deal of my time in the Gulf Coast region and in the incident command center in Houston, and let there be no mistake – I understand how serious this situation is. This is a tragedy: people lost their lives; others were injured; and the Gulf Coast environment and communities are suffering. This is unacceptable, I understand that, and let me be very clear: I fully grasp the terrible reality of the situation.

When I learned that eleven men had lost their lives in the explosion and fire on the Deepwater Horizon, I was personally devastated. Three weeks ago, I attended a memorial service for those men, and it was a shattering moment. I want to offer my sincere condolences to their friends and families – I can only imagine their sorrow.

My sadness has only grown as the disaster continues. I want to speak directly to the people who live and work in the Gulf region: I know that this incident has profoundly impacted lives and caused turmoil, and I deeply regret that. Indeed, this is personal for us at BP. Many of our 23,000 U.S. employees live and work in the Gulf Coast region. For decades, the people of the Gulf Coast states have extended their hospitality to us and to the companies like Arco and Amoco that are now part of BP. We have always strived to be a good neighbor. We have worked to hire employees and contractors, and to buy many of our supplies, locally.

[1] The data described throughout this testimony is accurate to the best of my knowledge as of 7am, June 16, 2010, when this testimony was prepared. The information that we have continues to develop as our response to this incident continues.

I want to acknowledge the questions that you and the public are rightly asking. How could this happen? How damaging is the spill to the environment? Why is it taking so long to stop the flow of oil and gas into the Gulf?

And questions are being asked about energy policy more broadly: Can we as a society explore for oil and gas in safer and more reliable ways? What is the appropriate regulatory framework for the industry?

We don't yet have answers to all these important questions. But I hear the concerns, fears, frustrations – and anger – being voiced across the country. I understand it, and I know that these sentiments will continue until the leak is stopped, and until we prove through our actions that we will do the right thing. Our actions will mean more than words, and we know that, in the end, we will be judged by the quality of our response. Until this happens, no words will be satisfying.

Nonetheless, I am here today because I have a responsibility to the American people to do my best to explain what BP has done, is doing, and will do in the future to respond to this terrible incident. And while we can't undo these tragic events, I give you my word that we will do the right thing. We will not rest until the well is under control, and we will meet all our obligations to clean up the spill and address its environmental and economic impacts.

From the moment I learned of the explosion and fire, I committed the global resources of BP to the response efforts. To be sure, neither I nor the company is perfect. But we are unwavering in our commitment to fulfill all our responsibilities. We are a strong company, and nothing is being spared. We are going to do everything in our power to address fully the economic and environmental consequences of this spill and to ensure that we use the lessons learned from this incident to make energy exploration and production safer and more reliable for everyone.

A Coordinated Effort

We have been committed to responding to these tragic events and coordinating with the federal government from the beginning. On April 21, the Administration began holding meetings and regular calls with me and other members of BP's leadership to discuss BP's response effort, as well as federal oversight and support.

Even before the Deepwater Horizon sank on the morning of April 22, a Unified Command structure was established, as provided by federal regulations. Currently led by the National Incident Commander, Admiral Thad Allen, the Unified Command provides a structure for BP's work with the Coast Guard, the

Minerals Management Service and Transocean, among others. We are grateful for the leadership of President Obama, members of his cabinet, the state governors and local officials.

As the scope of the unfolding disaster became more apparent, we reached out to additional scientists and engineers from our partners and competitors in the energy industry, as well as engineering firms, academia, government and the military.

Among the resources that have been made available:

- Drilling and technical experts who are helping determine solutions to stopping the spill and mitigating its impact, including specialists in the areas of subsea wells, environmental science and emergency response;

- Technical advice on blowout preventers, dispersant application, well construction and containment options;

- Additional facilities to serve as staging areas for equipment and responders, more remotely operated vehicles (ROVs) for deep underwater work, barges, support vessels and additional aircraft, as well as training and working space for the Unified Command.

Working under the umbrella of the Unified Command, BP's team of operational and technical experts is coordinating with many federal, state, and local governmental entities and private sector organizations. These include the Departments of Interior, Homeland Security, Energy, and Defense, the National Oceanic and Atmospheric Administration (NOAA), US Fish & Wildlife Service (USFW), National Marine Fisheries Service (NMFS), EPA, OSHA, Gulf Coast state environmental and wildlife agencies, the Marine Spill Response Corporation (MSRC) (an oil spill response organization), as well as numerous state, city, parish and county agencies.

Some of the best minds and the deepest expertise are being brought to bear. With the possible exception of the space program in the 1960s, it is difficult to imagine the gathering of a larger, more technically proficient team in one place in peacetime. And including BP, industry and government resources, more than 27,000 personnel are now engaged in the response in various activities such as booming, skimming, surveying, clean-up operations, wildlife protection and rehabilitation and claims support. In addition, we are helping to train and organize the more than 19,000 citizen volunteers who have come forward to offer their services. The outpouring of support from government, industry, businesses and private citizens has truly been both humbling and inspiring.

What We Are Doing

Our efforts in response to this incident are focused on two critical goals:

- Successfully stopping the flow of oil; and
- Minimizing the environmental and economic impacts from the oil spill.

These are without a doubt complex and challenging tasks. While we have had to overcome hurdles, we are doing everything we can to respond as quickly and effectively as we can.

From the beginning, we have been committed to a transparent response. We know the public wants as much information as possible about this unprecedented event, and we continue to do our best to provide it so the public can understand the incident and its impacts.

Subsea efforts to secure the well

Our first priority is to stop the flow of oil and secure the well.

We are currently drilling two relief wells, which we believe represents the ultimate solution to stopping the flow of oil and gas from the well. The first relief well is currently at a depth of 15,226 feet, and the second relief well is currently at 9,778 feet.

Separately, the goal has been to minimize or stop the flow of oil and gas before the relief wells are completed. From the beginning, we have implemented a multifaceted strategy, featuring a range of technological approaches. Our efforts to stop the well from the seabed included a number of interventions to the failed BOP, and the 'top kill' procedure. We understand the public's frustration that these approaches did not stop the flow of oil. We, too, were disappointed.

Although we were not able to stop the well at the seabed, our efforts to contain the oil and gas have been more successful. While our first attempt with a Containment Dome was not successful due to gas hydrate formation, we learned lessons that have underpinned subsequent successes. Specifically, we first deployed a Riser Insertion Tube Tool that overcame these gas hydrate problems and captured more than 2,000 barrels per day for ten days. On June 3, we replaced this with the Lower Marine Riser Package Cap, which had increased our collection to about 15,000 barrels per day.

On Wednesday morning, we were in the early stages of increasing oil and gas collection through our next containment step, the Q4000 Direct Connect. It

utilizes much of the subsea 'top kill' equipment and takes oil directly from the failed BOP to the Q4000 on the surface. We expect to optimize collection over the next few days to levels well above what was previously accomplished.

It is important to keep in mind that these techniques have never before been attempted 5,000 feet under water. On the seabed, we have made unprecedented use of ROVs for a variety of tasks, including working on the BOP, positioning riser cutting devices and slings, connecting hoses, positioning containment devices and providing extensive surveying and monitoring. We cannot guarantee the outcome of these operations, but we are working around the clock with the best experts from government and industry.

We continue to do more to increase our operational flexibility and collection capability. This includes securing vessels with greater processing and storage capacity, adding shuttle tankers for transporting oil, procuring spares of critical equipment, installing permanent riser systems, and replacing the containment cap with a more secure system. We will not rest with our containment efforts until the well is permanently killed. I know it feels like this all takes a long time but we are compressing operations that normally take months into days.

In addition to these containment operations, and with the approval of the Unified Command and in conjunction with the EPA, we continue injecting dispersant subsea using ROVs. Dispersant acts by separating the oil into small droplets that can break down more easily through natural processes before they reach the surface. Use of dispersant subsea reduces the amount of oil traveling to the surface, which, in turn, reduces the amount of spray dispersant required at the surface. In addition, dispersant use at the source requires approximately one quarter of the amount of dispersant that would be necessary for use on the surface. Sonar testing and aerial photographs show encouraging results.

There has been a lot of discussion about the use of dispersants. On June 4, a federal panel of experts studying this issue recommended continued use of dispersants after analyzing potential risks and benefits for the environment. The dispersant we are using – Corexit – is on the National Contingency Plan Product Schedule, which is maintained by the EPA. We will continue to work closely with the EPA to try to identify alternative dispersants and to monitor the situation closely. We will only use dispersants in ways approved by the Unified Command, supported by the EPA and other relevant agencies.

Clean up Efforts

BP is a "responsible party" under the Oil Pollution Act. This means that federal law requires BP, as one of the working interest owners of Mississippi Canyon 252, to pay to clean up the spill and to compensate for the economic and

environmental impacts of the spill. Let me be clear: BP has accepted this responsibility and will fulfill this obligation. We have spent nearly $1.5 billion so far, and we will not stop until the job is done.

It is important to understand that this "responsible party" designation is distinct from an assessment of legal liability for the actions that led to the spill. Investigations into the causes of the incident are ongoing, and issues of liability will be sorted out separately when the facts are clear and all the evidence is available. The focus now is on ensuring that cleanup, and compensation for those harmed by the spill, are carried out as quickly as possible.

Our cleanup efforts are focused on two fronts: in the open water and at the shoreline.

• On the water

On the open water, more than 4,200 response vessels are in use, including skimmers, storage barges, tugs, and other vessels. The Hoss barge, the world's largest skimming vessel, has been onsite since April 25. In addition, there are 49 deepwater skimming vessels, which includes ten 210-foot MSRC Oil Responder Class Vessels, which each have the capacity to collect, separate, and store 4,000 barrels of oily water mix. To date, over 400,000 barrels of oily water mix have been recovered.

As part of our response efforts, over 2,000 "Vessels of Opportunity", independent vessel owners throughout the Gulf Coast are using their boats in a variety of oil recovery activities, including towing and deploying booms, supporting skimming and burn operations, finding and recovering tar balls and transporting general supplies and personnel.

Also on the open water, with the Coast Guard's approval, we are attacking the spill area with EPA-approved biodegradable dispersants, which are being applied from both planes and boats.

• Actions to protect the shoreline

Near the shoreline, we are implementing oil spill response contingency plans to protect sensitive areas. According to the Coast Guard, the result is the most massive shoreline protection effort ever mounted.

To support rapid response, we have made available a total of $175 million to Louisiana, Mississippi, Alabama, and Florida, as well as $70 million to assist these states in tourism promotion efforts.

To date, we have deployed over 2.5 million feet of containment boom and over 3.0 million feet of sorbent boom in an effort to contain the spill and protect the coastal shoreline. The Department of Defense is helping to airlift boom to wherever it is currently needed across the Gulf coast.

Highly mobile, shallow draft skimmers are also staged along the coast ready to attack the oil where it approaches the shoreline.

Wildlife clean-up stations have been mobilized, and pre-impact baseline assessment and beach clean-up has been completed in many locations, Shoreline cleanup assessment teams (SCAT) are being deployed to affected areas to assess the type and quantity of oiling, so the most effective cleaning strategies can be rapidly applied

Our largest single project commitment to date is to fund the $360 million cost of six berms in the Louisiana barrier islands project. On June 7, we announced that we will make an immediate payment of $60 million to the state of Louisiana to allow the state to begin work on the project immediately. BP will make five additional $60 million payments when the Coastal Protection and Restoration Authority of Louisiana certifies that the project has satisfied 20%, 40%, 60%, 80% and then 100% completion milestones. The entire $360 million will be funded by the completion of the project.

In addition, BP is committing up to $500 million to an open research program studying the impact of the Deepwater Horizon incident, and the associated response, on the marine and shoreline environment of the Gulf of Mexico. The program will investigate the impacts of the oil, dispersed oil, and dispersant on the ecosystems of the Gulf of Mexico and coastal States.

Communication, community outreach, & engaging volunteers

We are also working hard to keep the public and government officials around the country informed of what is happening. We are regularly briefing federal, state, and local officials, and we are holding town hall sessions to keep affected communities informed.

BP is also supporting volunteer efforts related to shoreline clean-up. We have partnered with existing volunteer organizations in each of the states to ensure efficient registration and deployment of volunteers to the areas where they can help most.

Untrained volunteers are not being used for any work involving contact or handling of oil, tar balls, or other hydrocarbon materials. This work is being carried out by trained personnel. In some cases, volunteers who receive more

intensive training on the safe handling of hazardous materials and vessel operation for laying boom can become contract employees (Qualified Community Responders).

There are twenty-five BP community-outreach sites engaging, training, and preparing volunteers in Alabama, Florida, Louisiana and Mississippi. A phone line has also been established for potential volunteers to register their interest in assisting the response effort.

Coping with economic impacts

We recognize that beyond the environmental impacts there are also economic impacts on many of the people who rely on the Gulf for their livelihood. BP will pay all necessary cleanup costs and all legitimate claims for other losses and damages caused by the spill.

The BP claims process is integral to our commitment to do the right thing. To date, BP has already paid out over $90 million on the more than 56,000 claims that have been submitted. While the initial focus has been on individuals, we are now moving funds on an expedited basis to business owners with nearly $16 million to be paid out this week to businesses alone.

To ensure the process is as fair and transparent as possible, an independent mediator will be appointed to provide an independent judgment in cases in which BP and a claimant are in disagreement. The mediator will be fully independent of BP, and claimants who disagree with the mediator's judgment will retain all rights under the Oil Pollution Act of 1990 either to seek reimbursement from the Oil Spill Liability Trust Fund or to file a claim in court.

Thirty-two walk-in claims offices are open in Alabama, Florida, Louisiana and Mississippi. Our call center is operating 24 hours a day, seven days a week. We also have in place an on-line claims filing system. Nearly 700 people are assigned to handle the claims, including almost 600 experienced claims adjusters working in the impacted communities. Claim forms can be filled out in English, Spanish or Vietnamese, and Spanish and Vietnamese translators are available in many offices.

We are striving to be efficient and fair and we look for guidance to the established laws, regulations and other information provided by the US Coast Guard, which oversees the process.

We will continue adding people, offices and resources as necessary.

Investigating what happened

The question we all want answered is "What caused this tragic accident"?

A full answer to this and other questions must await the outcome of multiple investigations now underway, including a joint investigation by the Departments of Homeland Security and Interior (Marine Board) and an internal investigation by BP itself.

Our internal investigation was launched on April 21, 2010 and is being conducted by BP's Head of Group Safety and Operations.

The investigation team's work thus far suggests that this accident was brought about by the apparent failure of a number of processes, systems and equipment. While the team's work is not done, it appears that there were multiple control mechanisms — procedures and equipment — in place that should have prevented this accident or reduced the impact of the spill. The investigation is focused on the following seven mechanisms:

1. The cement that seals the reservoir from the well;
2. The casing system, which seals the well bore;
3. The pressure tests to confirm the well is sealed;
4. The execution of procedures to detect and control hydrocarbons in the well, including the use of the blowout preventer (BOP) and the maintenance of that BOP;
5. The BOP Emergency Disconnect System, which can be activated by pushing a button at multiple locations on the rig;
6. The automatic closure of the BOP after its connection is lost with the rig; and;
7. Features in the BOP to allow ROVs to close the BOP and thereby seal the well at the seabed after a blowout.

I understand people want a simple answer about why this happened and who is to blame. The truth, however, is that this is a complex accident, caused by an unprecedented combination of failures. A number of companies are involved, including BP, and it is simply too early to understand the cause. There is still extensive work to do.

Lessons learned

There are events that occurred on April 20 that were not foreseen by me or BP, but which we need to address in the future as lessons learned from this terrible tragedy. With ongoing investigations into the incident and continuing efforts to secure the well, we are in the early stages of trying to learn from this incident.

But, as I see it, there are already lessons to be learned, and I wanted to share two of them with you today.

Lesson 1: Based on the events of April 20 and thereafter, we need to be better prepared for a subsea disaster. It is clear that our industry needs to significantly improve our ability to quickly address deep-sea accidents of this type and magnitude.

The industry has made significant strides in preparedness measures before, and we will do so again. Following the Exxon Valdez oil spill, the industry recognized the need to enhance its capacity to address oil spills. The result was the MSRC, an independent, nonprofit company which maintains a significant inventory of vessels, equipment and trained personnel, complemented by a large contractor work force. The work of MSRC and other contractors has been central to the surface spill response efforts in the Gulf.

But based on the events of April 20 and thereafter, it is clear that this is not enough. We now need to develop a similar capability for dealing with large undersea spills. We have no doubt that others in the industry will join us in efforts to develop this capability.

Lesson 2: Based on what happened on April 20, we now know we need better safety technology. We in the industry have long relied on the blowout preventer as the principal piece of safety equipment. Yet, on this occasion it apparently failed, with disastrous consequences. We must use this incident as a case study to avoid a similar failure in the future.

Since the April 20 explosion and fire, BP has been carefully evaluating the subsea blow-out preventers used in all our drilling operations worldwide, including the testing and maintenance procedures of the drilling contractors using the devices. We will participate in industry-wide efforts to improve the safety and reliability of subsea blowout preventers and deep water drilling practices. And we will work closely with other interested parties as we do so.

Conclusion

We understand the seriousness of the situation. We know the world is watching us. No one will forget the 11 men who lost their lives in the explosion on the Deepwater Horizon. We hear and understand the concerns, frustrations, and fears that have been and will continue to be voiced. I understand that only actions and results, and not mere words, ultimately can give you the confidence you seek. We will be, and deserve to be, judged by our response.

I give my pledge as leader of BP that we will not rest until we stop this well, mitigate the environmental impact of the spill and address economic claims in a responsible manner. No resource available to this company will be spared. We and the entire industry will learn from this terrible event and emerge from it stronger, smarter and safer.

Mr. STUPAK. One of the bad parts about conducting a hearing, we get interrupted every now and then by votes, and we have three votes pending right now. There's, I think, about 10 minutes remaining on this vote.

I would suggest, instead of trying to get into questions, we take a break right now. Let's stand in recess for 30 minutes. Let's come back at noon and continue this hearing. We will start with questions from all the Members.

OK. This committee will be in recess until 12 noon.

[Recess.]

Mr. STUPAK. The committee will come back to order.

When we left off, Mr. Hayward had finished his opening statement. We would begin with questions. I will begin.

Mr. Hayward, when we heard about the explosion in the gulf, the immediate company that popped into my brain was BP, and that's because the last number of years from Texas City where people died and 170 people were injured; the North Slope, the problems we have had there; and BP's own 2007 report on the management accountability project in which it stated there was a culture that evolved over the years that seemed to ignore risk, tolerate noncompliance and accepted incompetence. So I wasn't surprised when we heard about the explosion in the gulf and BP was part of it.

Since then this committee, the oversight and investigations committee of the Energy and Commerce Committee, we have methodically looked at this issue, and I know you have and your company has also. On May 12, we had a hearing in which we looked at a number of things that went wrong. On May 25, our committee, Chairman Waxman and myself, put out a memo. It was based on BP's preliminary report, and I am sure you are familiar with that report; are you not, sir?

Mr. HAYWARD. I am.

Mr. STUPAK. And then on June 14, Chairman Waxman and I sent you a letter, 14 pages, where we talk about the crazy well and the nightmare well. Quite frankly, BP blew it. You cut corners to save money and time.

And as the chief executive officer of BP, as I stated in my opening, you called for a leaner decisionmaking process. You called for fewer people in the decisionmaking process. You stated, individuals need to be accountable for risk and to manage risk. Therefore, BP's leadership managed their risk in this well.

Did you manage the risk properly?

Mr. HAYWARD. Since I have been the CEO of this company, I have focused on safe, reliable operations.

I have set the tone from the top by making it very clear to everyone in BP that safe, reliable operations are our number one priority. Of course, this is about more than words. Safety is about three things. It's about plants, it's about people, it's about process. In the last 3 years, we have invested more than $14 billion in plant integrity.

Mr. STUPAK. But then what happened here? I mean, the June 14 letter we put out the other day went through five major areas. The head of—the CEOs of the oil companies who were before this committee Tuesday all said you did it wrong. They never would have done a well this way.

You made decisions, whether to do a casing or the string with the tie-back, which everyone said the tie-back would have been safer; the lockdown sleeves; centralizers, instead of doing 21 as was recommended, you only do 6. That defies the safety emphasis; does it not?

Mr. HAYWARD. We launched an investigation, which we have shared with yourself, Mr. Chairman, and all of your Members, which has identified seven areas. It's identified areas around cements, casing, integrity pressure measurements, well control procedures, and three areas around the blowout preventer which failed to operate. An investigation is ongoing. It's not complete.

Mr. STUPAK. Sure. But you are CEO of this company. You said you were here to answer the questions of the American people. You were an exploration manager, exploration manager with BP. You were the director of BP's exploration. You were vice president of BP's exploration and production. You hold a Ph.D. from the University of Edinburgh.

Based on our May 12 hearing, the May 25 memo, our June 14 letter to you, based on all those facts, are you trying to tell me you have not reached a conclusion that BP really cut corners here?

Mr. HAYWARD. I think it's too early to reach conclusions, with respect, Mr. Chairman. The investigations are ongoing. They have identified seven key areas, and when they complete——

Mr. STUPAK. Every one of those seven key areas, sir, dealt with saving time and saving money and accepting the risk. So if we use your own words, if you are going to hold BP accountable, then we have to manage the risk.

Should leadership at BP be held accountable here?

Mr. HAYWARD. There is no doubt that I have focused on safe, reliable operations. We have made major changes in everything we do over the last 3 years. We change people——

Mr. STUPAK. What changes have you made since April 20 when the BP Deepwater Horizon exploded? What changes were made then?

Mr. HAYWARD. Based on what we know so far, we have made changes with respect to the testing and evaluation of blowout preventers. We have made changes with respect to ensuring that people who are likely to be dealing with well control are up to date and fully validated for well-control procedures. And as we learn more about what happens here, we will continue to make changes.

Mr. STUPAK. My time is just about up. I am going to try to hold Members quickly to our time because we want to get through at least one more round.

Let me just ask you this: The last 5 years I have been up here, your safety record, you have 26 people dead, more than 170 injured. You have the largest spill ever in Alaska, and you now have the largest environmental disaster to hit the United States with no end in sight with this disaster.

Do you believe the U.S. Government should continue to allow companies that have poor safety records, poor environmental records, to explore minerals or oil exploration in our country? Should there be a ban on companies that have miserable safety and environmental records?

Mr. HAYWARD. In the 3 years that I have been CEO, I have focused on improving dramatically our safety and environmental performance. At the price of this accident, that has indeed been the case, and that is why, amongst all the other reasons, I am so devastated by this accident.

Mr. STUPAK. I agree, and under your tenure, you said you had the 2007 report that was scathing of BP's culture. We still have problems with Alaska. You said you are going to hold people accountable. Who are we going to hold accountable here?

Mr. HAYWARD. We have engaged in a systemic change at BP over the last 3 years. We have begun to change the culture. I am not denying that there isn't more to do, but we have made dramatic changes in the people we had in our organization, the skills and capabilities they have. We have invested heavily into that. We have changed significantly the processes that we use to manage our operations, and, most importantly perhaps, we have made safe, reliable operations the core of the company. It is the thing that I talk about every time I talk internally and every time I talk externally about BP.

Mr. STUPAK. In your opening statement you said as long as you were CEO of BP, these things would occur. Do you expect to be CEO of BP much longer?

Mr. HAYWARD. At the moment I am focused on the response. I think everyone here believes that the highest priority is to stop the leak, continue on on the surface and clean it up. That is what my focus is.

Mr. STUPAK. Mr. Burgess for questions.

Mr. BURGESS. Thank you, Mr. Chairman.

The highest priority is stopping the leak. Let me ask, Mr. Hayward, is your presence here today in any way interfering with that number one task of stopping the leak?

Mr. HAYWARD. It is not.

Mr. BURGESS. Thank you.

Let me just ask you—or let me just make a statement for clarification. I am not going to apologize for you. It was, after all, BP executives who were on that rig, BP executives who ultimately could have made the call to stop operations when things became unsafe, and ultimately you are the person at the top, and you are responsible.

We lost 11 men on that rig. Transocean and other companies lost 11 men on that rig. I don't feel that apologies are in order.

But, Mr. Chairman, I do have serious questions about the setup of this fund that we heard about from the White House yesterday. And I hope this committee will stay engaged in the oversight of that activity as well. It's still disturbing to me that we have not had anyone from the Federal regulatory side. We have brought a ton of other people in here and questioned them, but really we need Mr. Salazar here. We need whoever the minerals management people were who approved that exploration plan that BP submitted that was woefully inadequate.

Shame on you, Mr. Hayward, for submitting it, but shame on us for accepting it with simply a rubber stamp.

Now I have got some questions I do need to ask.

BP, unfortunately, it's not the first time you have been in front of our committee. And in 2006, although you were not CEO that year, I pulled the transcript last night and looked through it again. The Big Oil spill in Alaska had to do with not proper maintenance on the pipelines. And when you came in, you said you were going to focus like a laser beam on safety, and certainly that had to be welcome news after Texas City, after the North Slope accident.

So what safety briefings do you get as your office's chief executive officer, and who provides them to you?

Mr. HAYWARD. The basis of management of safety performance is through something that we call our group operating risk committee. It's a committee that I set up, I chair. It involves the heads of all of the business streams, and we meet upon a bimonthly basis to review the safety performance across the company. That process is mirrored down through the company.

Mr. BURGESS. And what type of safety directives then, or what types of directives do you issue in terms of safety as a result of those meetings, and perhaps would you be willing to share some of that information with the committee as we go forward?

Mr. HAYWARD. We can certainly share that information with the committee. They range from changes to procedures to requirements of—to have people where there are issues with safety to come and present to us.

Mr. BURGESS. But somebody records minutes during those meetings, and then your directives that come as a consequence of those briefings are written down and delivered to the appropriate managers on the ground?

Mr. HAYWARD. There are minutes of those meetings.

Mr. BURGESS. I beg your pardon?

Mr. HAYWARD. There are minutes of those meetings.

Mr. BURGESS. Let me ask you this. Mr. Stupak already alluded to the fact that should we allow someone who is perhaps not following the best practices, drilling practices, continue to drill.

Is there any other well, to your knowledge, in the Gulf of Mexico that has been done in the same manner as this well that was drilled under the Deepwater Horizon?

Mr. HAYWARD. There are many wells in the Gulf of Mexico.

Mr. BURGESS. Are there any other wells where you haven't put the proper number of centralizers in?

Mr. HAYWARD. There are many wells in the Gulf of Mexico that have the same casing design. There are many wells that have been drilled where the same cement procedure has been——

Mr. BURGESS. Now, have the Minerals Management Service people been there and looked over those with a fine-tooth comb?

Mr. HAYWARD. Everything that we do is subject to regulatory oversight.

Mr. BURGESS. Are you changing your procedures of those wells as a result of things that you have encountered in your investigation——

Mr. HAYWARD. I apologize, sir. As we learn from our investigation, we will make appropriate changes, as I have already indicated.

Mr. BURGESS. Are there any of those changes that are ongoing right now?

Mr. HAYWARD. The ones that I have talked about are ongoing.

Mr. BURGESS. Well, let me ask you this. Now, the question came up about centralizers, and someone said that they would rather push more cement or squeeze more cement than getting something stuck. I am not technically savvy enough to know exactly about that, but if that's the statement, and you are going to push cement and deal with a fewer number of centralizers to hold this thing steady in the center of the column, is there any way to find out that, in fact, that cement went where you intended it to do, and that rod didn't, in fact, get off to one side or the other?

Mr. HAYWARD. I wasn't part of the decisionmaking process on this well. I have looked at the material——

Mr. STUPAK. Yes. That's not the question I asked you. Was there a procedure that could have been followed that would have actually given that information?

Mr. HAYWARD. I can't answer that question. I am not a cement engineer, I am afraid.

Mr. BURGESS. There is, and those people were available, and for whatever reason they decided not to do that. Do you think that might have made a difference in the ultimate story of the Deepwater Horizon?

Mr. HAYWARD. I am not prepared to speculate on what may or may not have made a difference until such time as the multiple investigations that are ongoing are concluded.

Mr. BURGESS. Well, but prior to April 20, when the well blew up, were you briefed on the progress of the drilling of the Macondo well?

Mr. HAYWARD. The only knowledge that I had of the Macondo well occurred in April when it was evident to the team drilling it that we had made a discovery, and they notified myself that we made a discovery.

That was my only prior involvement in the well.

Mr. BURGESS. Who briefed you? Who briefed you on that discovery?

Mr. HAYWARD. The person who would have briefed me would have been the chief executive of exploration and production.

Mr. BURGESS. Were you privy then to any other information, the difficulties that they had had the multiple gas kicks, the losing the tools down the hole, the length of time they have been over the hole, the decisions to move quickly because we had spent too much time over this well?

Mr. HAYWARD. I had no prior knowledge.

Mr. BURGESS. Who would have had that information?

Mr. HAYWARD. Certainly the drilling team in the Gulf of Mexico.

Mr. BURGESS. But you are the CEO of the company. Do you have any sort of technical expert who helps you with these things who might have been there?

Mr. HAYWARD. With respect, sir, we drill hundreds of wells a year all over the world.

Mr. BURGESS. Yes, I know. That's what is scaring me right now.

Did you have a technical expert who was advising you there on this well, because we have heard from other people that there were problems, it was a bad well, it was a dangerous well; gas kicks, and

the mud was not degasified or whatever the procedure was. So did you have a technical expert advising you?

Mr. HAYWARD. I had no prior knowledge or involvement in the drilling of this well, none whatsoever.

Mr. BURGESS. But who was? If you are the CEO of the company, if I were a shareholder of BP, which I am not, but if I am, how can I have comfort that the CEO knows what's going on as far as safety on the rigs, or is it true it's just all about profit?

Mr. HAYWARD. There was a drilling team providing oversight of this well.

Mr. BURGESS. There was a drilling team.

Mr. STUPAK. We will go to Mr. Waxman.

Mr. WAXMAN. Thank you very much, Mr. Chairman.

Mr. Hayward, when you became CEO 3 years ago, you said that safety was going to be your top priority; you would focus on it like a laser. Your Website said, safe and reliable operations are integral to BP's success.

I want to ask you whether you think that BP met that commitment that you made when you became CEO?

Mr. HAYWARD. Since I became CEO, we have made a lot of progress. We have made it very clear to everyone in the company that safe, reliable——

Mr. WAXMAN. Have you met that commitment that you made?

Mr. HAYWARD. And we made major changes. We made major changes to our——

Mr. WAXMAN. You made major changes, but now we see this disaster in the gulf. Does that indicate that you didn't keep that commitment?

Mr. HAYWARD. And one of the reasons that I am so distraught.

Mr. WAXMAN. Could you answer yes or no? I don't want to know whether you are distraught. I want to know whether you think you have kept your commitment.

Mr. HAYWARD. We have focused like a laser on safe and reliable operations, that is fact, every day.

Mr. WAXMAN. OK. Well, let me follow up on that. We had a hearing earlier this week with CEOs from the other oil companies. They were unanimous in their view that you made risky decisions that their companies would not have made. And in particular they criticize your decision to install a long, single string of casing from the top of the well to the bottom on April 19, the day before the blowout. They said this well design choice provided an unrestricted pathway for gas to travel up the well in the annulus space that surrounded the casing, and, of course, it blew out the seal.

How do you respond to their criticism? Did BP make a—a fundamental misjudgment in selecting a single string of casing?

Mr. HAYWARD. I wasn't involved in any of that decisionmaking.

Mr. WAXMAN. Well, I want to know your view of it, now that you know about it, now that you know what your company did. Pursuant to your laser request that they be attuned to safety, do you think that that was a mistake?

Mr. HAYWARD. The original well design was to run a long string. It was approved by the MMS. There was only discussion in the course of the drilling of the well whether a long string or a 7-inch line that would be most appropriate. That is what I understand

based on having looked at the documents and listened to our investigation team.

The decision to run a long string, at least in part, was to do with the long-term integrity of well.

Mr. WAXMAN. But let me be fair to you, because I am asking you to look with hindsight as to what happened and the decision that was made.

But your own engineers warned in advance that this was a risky approach. And I would like to put on the screen what's called a planned review that your engineers prepared in mid-April warning against the long string of casing. As you can see, your engineers said that if you used a long string of casing, that it is unlikely to be a successful cement job. You would be unable to fulfill MMS regulations, and there would be an open annulus to the wellhead, and I have that on the screen.

Now, those are serious risks, a failed cement job, a violation of MMS safety regulations, an open pathway for gas to travel to the top of the well. The same document says that if you use the liner and tie-back approach, which is what Exxon Mobil and other companies said you should have used, you would have avoided or lessened these risks, and here is what the plan review said: If you used the liner, there would be less issue with landing it shallow. There would be a second barrier to gas in the annulus and a higher chance for a successful cement job.

Now, you said that BP is supposed to be focused like a laser on safety. Yet BP apparently overruled the warnings of its own engineers and chose the more dangerous option. How can you explain that decision by BP? Why were the safety recommendations of your own engineers ignored?

Mr. HAYWARD. I wasn't involved in any of the decisionmaking. It's clear that there was some discussion amongst the engineering team, and an engineering judgment was taken.

Mr. WAXMAN. It's clear to me that you don't want to answer our questions, because isn't it true that you have served your life in BP? You have only recently become the CEO, but haven't you been in this business most of your professional life?

Mr. HAYWARD. I have been in this business 28 years.

Mr. WAXMAN. Twenty-eight years. So you should have some knowledge about these issues. And I sent you a letter in advance asking you—we were going to be asking these questions and to be prepared to answer it.

How can you explain this decision where you ignore—not you, yourself, but people who work for you who should have known that it was your directive to be a laser on safety. How could they have ignored these warnings from people right within your company?

Mr. HAYWARD. There was clearly a discussion between the engineering team as to what was the most appropriate course of action to take. An engineering judgment was taken that involved long-term integrity——

Mr. WAXMAN. It was more than an engineering judgment, because April 15th there is a document, which is 5 days before the blowout, that said that using the safer liner will add an additional 7- to $10 million to the completion cost. The same document calls it the single string of casing, the best economic case for BP.

And the conclusion I draw from these documents is that BP used a more dangerous well design to save $7 million. What do you think about that? What is your response?

Mr. HAYWARD. I believe that document also highlights that the long-term integrity of the well will be best served by a long string. The long string is not an unusual well design in the Gulf of Mexico. As I understand it——

Mr. WAXMAN. Say that again.

Mr. HAYWARD. The long string is not an unusual design in the Gulf of Mexico.

Mr. WAXMAN. As I understand it from Halliburton's witness that was interviewed by our staff, that only 2 to 10 percent of those wells might use this particular string.

Now, ExxonMobil and other CEOs said they wouldn't proceed this way. It appears to me that BP knowingly risked well failure to save a few million dollars. And even drilling 18,000 feet below the sea, if you make mistakes, the consequences of those would be catastrophic and, in fact, it turned out to be catastrophic. Don't you feel any sense of responsibility for these decisions?

Mr. HAYWARD. I feel a great sense of responsibility for the accident. We need to allow——

Mr. WAXMAN. How about for the decisions that made the accident more likely?

Mr. HAYWARD. We need to determine what were the critical decisions and——

Mr. WAXMAN. Did you get my letter and did you review it?

Mr. HAYWARD. I have read your letter, Chairman.

Mr. WAXMAN. Do you realize in the letter that we asked you to be prepared to discuss these issues?

Mr. HAYWARD. As I said, I have seen the documents following your letter, and I cannot pass judgment on those decisions.

Mr. WAXMAN. Even though you have worked 28 years in the oil industry, you are the BP CEO, and you said like a laser you are going to—safety is the biggest issue and you have people under you making these kinds of decisions and now you are reviewing them.

Do you disagree with the conclusion that this was riskier to use this particular well lining?

Mr. HAYWARD. I am not prepared to draw conclusions about this accident until such time as the investigation is concluded.

Mr. WAXMAN. This is an investigation. That is what this committee is doing. It is an investigatory committee. And we expect you to cooperate with us. Are you failing to cooperate with other investigators as well? Because they are going to have a hard time reaching conclusions if you stonewall them, which is what we seem to be getting today.

Mr. HAYWARD. I am not stonewalling. I simply was not involved in the decisionmaking process. I have looked at the documents. And until the investigations are complete, both yours and others——

Mr. WAXMAN. That is somebody else's conclusion. What is your conclusion?

Mr. HAYWARD. I haven't drawn a conclusion, Mr. Chairman.

Mr. WAXMAN. I see. My time has expired and I am just amazed at this testimony, Mr. Hayward. You are not taking responsibility.

You are kicking the can down the road and acting as if you had nothing to do with this company and nothing to do with its decisions. I find that irresponsible.

Mr. STUPAK. Along those lines, do you disagree with the conclusions of Chairman Waxman's June 14th letter, the one Mr. Chairman and I sent you? Do you disagree with those five conclusions, five areas we hit, the conclusions we reached? Do you disagree with it?

Mr. HAYWARD. I think there are very legitimate issues for concern, Mr. Chairman.

Mr. STUPAK. They are very what?

Mr. HAYWARD. Legitimate areas for concern.

Mr. STUPAK. So we reached legitimate conclusions that people could then base the decision, cut corners to save money and we had this accident, correct?

Mr. WAXMAN. It doesn't appear you are very concerned about them, are you?

Mr. HAYWARD. I am very concerned that we get to the bottom of this incident and understand exactly what happens such that we can be sure that it never happens again.

Mr. WAXMAN. Easy to say.

Mrs. BLACKBURN. Mr. Chairman, just a request, please. If Mr. Hayward could move the microphone a bit closer. I am having difficulty hearing.

Mr. STUPAK. Right. I think we all are. Pull it a little closer if you could, please.

Mr. Sullivan for questions, please. I should note Mr. Upton is here from Michigan, a member of the full committee and so is Mr. Engle. They want to ask questions, they can at the appropriate time. Mr. Sullivan.

Mr. SULLIVAN. Thank you, Mr. Chairman.

Mr. Hayward, according to the Occupational Safety and Health Administration, there is mounting evidence that BP is one of the worst—has one of the worst safety records of any major oil company operating in the United States.

Is there a deficient safety culture at BP that led to the Deepwater Horizon and other disasters like the refinery explosion in Texas City, Texas, and the Alaskan oil pipeline spill?

Mr. HAYWARD. I think we acknowledged in 2005 and 2006 that we had serious issues, and as a consequence set out to implement systematic change in the culture and safety of BP. I set the tone from the top by saying very clearly, safe, reliable operations were our number one priority. We have invested billions of dollars in the integrity of that plant. We have recruited many thousands of engineers and technologists into our company, including many from other industries such as the nuclear industry and other parts of the chemical and oil and gas industry, and we have changed fundamentally our whole approach to the management of our operations through the implementation of significant changes to our processes.

Mr. SULLIVAN. It doesn't seem like that. If you look at the reports of what happened on the Deep Horizon, it doesn't look like many safety procedures have changed much at all. And, Mr. Hayward, do

you feel that your safety record compared to other major oil companies is comparable?

Mr. HAYWARD. As I said, it is clear that we had some serious issues to deal with in the 2005–2006 time frame and we have worked hard to improve our safety performance since that time for it.

Mr. SULLIVAN. It doesn't seem to be changing Mr. Hayward; your safety performance doesn't. Here are some highlights of your safety procedures. BP had 760 safety violations and you paid millions of dollars, 373 million in fines to avoid criminal prosecution for manipulating the propane markets.

Also, if you look at other industries, sir—let us take some of your competitors, for example. Sunoco—you had 760 violations in 5 years. Sunoco had 8 safety violations. ConocoPhillips had 8 safety violations in the same time you had 760. Citgo had 2 safety violations at the same time you had 760. And ExxonMobil had 1 safety violation in the same time period you had 760. How in the heck do you explain that?

Mr. HAYWARD. As I said, we acknowledged the problems we had in 2005 and 2006. The vast number of those things that you refer to date from that time period and we have made major changes in the company over the last 3 to 4 years.

Mr. SULLIVAN. Do you think the changes you made in that time period you are talking about when you were CEO—I understand why you are saying that—do you think that they were using those measures and protocols on the Deepwater Horizon?

Mr. HAYWARD. To my best knowledge, they absolutely were.

Mr. SULLIVAN. You don't think they short-cut anything on the Deepwater Horizon? You are CEO of a major company. Do you, in fact, looking back, sir, do you think that they cut corners?

Mr. HAYWARD. I believe we should await the results of the investigations before we draw conclusions.

Mr. SULLIVAN. Sir, you had to have looked at some of the results—your internal investigation. Internally, your investigation, did it show any kind of breakdown, something that you—with your protocols you said you put in place, were any of those short-cut?

Mr. HAYWARD. The investigation is still ongoing as you know. It has identified seven areas: the cement casing, the integrity pressure well control procedures, and three failures of the blowout preventer. And when the investigation is concluded we will make a judgment.

Mr. SULLIVAN. I would say that this problem is with your organization and your safety and the culture of your company's safety culture, and not a culture of our domestic oil and gas producers. As we can see, they haven't had the kind of problems you have had with cutting corners on safety. They have a lot of redundancies, contingency plans. I venture to say that this may not have happened if one of these other companies was operating that rig. Would you say that would be true?

Mr. HAYWARD. I don't think I can make that judgment.

Mr. SULLIVAN. Do you think the other companies have different or stricter or—stricter guidelines with their safety and spend more money on it? Because you probably compare yourselves to other companies, I am sure.

Mr. HAYWARD. I cannot make that comparison, but I can clear what we have done. We have invested billions of dollars, we have recruited thousands of people, and we have changed significantly our process, systems, and procedures in the course of the last 3 years.

Mr. SULLIVAN. Well, thank you. I yield back.

Mr. STUPAK. Thank you.

Before Mr. Dingell begins questions, we have votes on the floor again. There is less than 10 minutes remaining. So I am going to at least get through Mr. Dingell's questions and then we will recess.

Mr. Dingell.

Mr. DINGELL. Thank you, Mr. Chairman.

Mr. Hayward, you had two choices, using single casing or tieback. The risks are substantial associated with single casing, which is what BP chose.

Please answer yes or no. Can you assure us, under oath, that that was not a decision made to save time and money?

Mr. HAYWARD. I wasn't part of that decisionmaking process. I was not part of that decisionmaking process. So I cannot possibly know the basis on which that decision was taken.

Mr. DINGELL. How much money was saved by using the single stream casing?

Mr. HAYWARD. I believe the documents refer to a sum of I think, I think 7- to $10 million, and they also refer to the fact that the casing would have longer-term integrity as a long stream.

Mr. DINGELL. Please submit that for the record.

How much time was saved?

Mr. HAYWARD. I don't recall the time that was saved. Would there have been some time saved?

Mr. DINGELL. Would you submit that for the record, please?

Now, you had the option of using a number of centralizers to keep the casing in the center of the bore hole. Halliburton recommended 21. You ultimately chose to use 2. Could you tell us under oath that the decision to use 6 centralizers instead of the recommended 21 was not made to save time and money?

Mr. HAYWARD. I was not involved in that decision, so it is impossible for me to answer that question.

Mr. DINGELL. All right. Could you tell us how much money BP saved by not using the proper number of centralizers?

Mr. HAYWARD. I am afraid I cannot recall that.

Mr. DINGELL. Would you submit that for the record?

How much time was saved?

Mr. HAYWARD. I don't recall that either, I am afraid.

Mr. DINGELL. Please submit that for the record.

You and BP decided not to conduct a cement bond log, an acoustic test to find out whether the cement was bonded to the casing and surrounding formations. Despite Mineral Management Service regulations, can you state under oath to the committee that BP did not decide to—against using the cement bond log to save time and money, yes or no?

Mr. HAYWARD. My understanding from what I have read—again I was not involved in the decisionmaking—is that the team on the rig, the transition team, the BP team and the Halliburton team,

concluded that they had sufficient evidence that the cement job was good and therefore decided not to use the cement bond log.

Mr. DINGELL. Does that mean yes or no?

Mr. HAYWARD. It means I cannot answer your question in that form.

Mr. DINGELL. How much would this test have cost BP?

Mr. HAYWARD. I cannot recall that number, I am afraid.

Mr. DINGELL. Please submit it for the record.

How long would the test have taken?

Mr. HAYWARD. Probably a number of hours, I believe; but I am not certain.

Mr. DINGELL. Please submit that for the record.

You were supposed to engage in circulating drilling mud on the well bottom when the casing is on the bottom and before cementing. This is referred to as "bottoms up." Did BP fully circulate the mud, yes or no?

Mr. HAYWARD. I don't believe the mud was fully circulated. The process that the team on the rig were following was in line and approved by the MMS.

Mr. DINGELL. Thank you. Can you assure us, under oath again, that the decision not to fully circulate the mud was not made to save money and time?

Mr. HAYWARD. I cannot answer that question because I wasn't there.

Mr. DINGELL. Thank you. How much money did avoiding this procedure save?

Mr. HAYWARD. I am afraid I cannot recall.

Mr. DINGELL. Would you submit it for the record, please?

How long would the fully circulating of the mud have taken?

Mr. HAYWARD. I am afraid I cannot recall that either.

Mr. DINGELL. Would you submit that for the record, please?

Now, BP made the decision not to install a casing hanger lockdown sleeve. Can you assure the committee under oath that the decision not to install such lockdown sleeve was not made to save time and money?

Mr. HAYWARD. That was a decision I was not a party to.

Mr. DINGELL. How much did the installing of the lockdown sleeve save BP?

Mr. HAYWARD. I don't know.

Mr. DINGELL. How much time did installing the lockdown sleeve save?

Mr. HAYWARD. I am afraid I don't know that either.

Mr. DINGELL. Now, you have received a letter from the chairman of the subcommittee and the full committee asking a series of questions. When will the committee have the response to that letter?

Mr. HAYWARD. You will get it as soon as we can make it available to you.

Mr. DINGELL. Now, did BP have an emergency response plan in the event of a failure at the well?

Mr. HAYWARD. We had a response plan which we have——

Mr. DINGELL. What was the date of that response plan?

Mr. HAYWARD. The response plan was approved, as I recall, in June of 2009.

Mr. DINGELL. Please submit to us the date of the response plan and the number of times which it was updated and who it was that did the formulation of the plan. Please inform us for the record whether or not that plan was approved by the Mineral Management Service and on what date?

Thank you, Mr. Chairman. I look forward to seeing those answers in the record.

Mr. STUPAK. Thank you, Mr. Dingell. To let members know, we are going to stand in recess for 1 hour. We have six votes plus a motion to recommit. The good news is when we come back—these are the last votes of the day—we will be able to finish the hearing then.

Mr. BURGESS. Mr. Chairman, Mr. Hayward has brought up a point about he followed the procedures of MMS. Once again it is so critical that we get the Federal regulatory agencies in this committee to ask them questions.

Mr. STUPAK. Mr. Burgess, as you know——

Mr. BURGESS. The fact that we haven't here, after all these hearings, is really disturbing to me.

Mr. STUPAK. Reclaiming my time, Mr. Burgess. As you know, we have a methodical method we have been using in this investigation. We have gone through it very methodically. You know we have at least two more hearings. One was scheduled for Tuesday, but at your request and my request we moved it back a little more. There will be at least two more hearings. We will do our job. We will have all parties here before this committee at the appropriate time.

Mr. BURGESS. Clearly, Mr. Hayward is not prepared to answer the questions and we need to get MMS in here to do that as well.

Mr. STUPAK. MMS isn't going to help Mr. Hayward answer the questions. Mr. Hayward has to answer the questions himself.

Mr. BURGESS. I would just submit that with the depth——

Mr. STUPAK. We are in recess until 2 o'clock.

Mr. BURGESS. Any one of us could do his job.

[Recess.]

Mr. STUPAK. The committee will reconvene.

Mr. Hayward, during the last series of votes, I was approached by several members of the committee who are extremely frustrated with your lack of candor and your inability to answer their questions. We initially wanted to have this hearing last week. However, your staff pleaded with the committee to give you an additional week so you could be adequately prepared for this hearing and we agreed. In addition to the extra week, we allowed you to prepare, Chairman Waxman and I sent you a 14-page letter outlining five issues you should be prepared to address in today's hearing.

You did not address any of those issues in your opening statement. And thus far, you have responded to our questions with little substance and many claims of not knowing or not being part of the decisionmaking processes.

You first accepted responsibility for actions to your staff in town hall meetings, and yet you have not yet provided us with direct answers or taken responsibility thus far today. I sincerely hope that you will reconsider your approach to these questions. I hope you

will be more forthcoming and less evasive with your answers for the remainder of this hearing.

We are done with votes, so we should be able to get through the rest of this hearing; and we will probably go a second round because members do want to push you on some of these issues. You are the CEO. Great experience. You have got a Ph.D. You have been head of exploration. You know what is going on. We would hope that we would have more candid responses to our questions.

With that, let me turn it to Mrs. Blackburn for questions. Five minutes, please.

Mrs. BLACKBURN. Thank you, Mr. Chairman. And indeed, Mr. Hayward, we are a little bit frustrated with hearing you say you were not a party to certain decisions or were not in that chain of command or that you can't comment because of ongoing investigations. So I am going to try a little different tactic because I do want to get some answers and get some items—get some of these questions answered.

I want to go back to the safety issues. I mentioned that in my opening statement to you. I am one of those individuals that grew up down on the Gulf Coast and then moved away. I am familiar with people working offshore, if you will.

And what I would like to know from you, have you been briefed on the safety issues and the safety concerns; and then if you were a part of the decisionmaking process on what would be considered the best operating practices, were you a part of the chain of command, and what is the chain of command for dispute resolution when there is a difference about how to approach safety?

Go ahead. I would love your response.

Mr. HAYWARD. As I have said, I wasn't involved in the decisionmaking on the day——

Mrs. BLACKBURN. Let us do this, then. If you were not involved in the decisionmaking of how safety is approached on these rigs and platforms, would you submit to us in writing for the record a description of what that chain of command is and what the process is when there is a difference of opinion on how you approach rig safety? Would you be willing to submit that? And I will ask you and your team to submit that to us for the record.

In addition, since becoming CEO, have you been briefed on the significant safety incidents that have occurred in BP's explorations, Alaska and production facilities over the past year? Have you been briefed?

Mr. HAYWARD. I had discussed those issues at the group operating risk committee.

Mrs. BLACKBURN. As a result of these briefings, did you authorize any changes to BP policies and practices for dealing with the safety?

Mr. HAYWARD. We took actions in Alaska to change both the organization and some of the processes.

Mrs. BLACKBURN. Thank you. Since the Deepwater Horizon incident, have you made changes? And what are those? Will you submit those to us for the record?

Mr. HAYWARD. We have made changes to our testing procedures on BOPs. We have made changes to the intensity with which wellsite leaders are aware of well control procedures and a variety of

other interventions that are predicated on what we have learned from the incident so far. And as we learn more, we will make more changes as we deem appropriate.

And I would be very happy to submit to you, Congresswoman, the changes that we have made.

Mrs. BLACKBURN. Thank you. Did you ask other companies for help in cleaning up the BP oil spill? Last week for the hearing, we had several different companies. Did you all approach other companies or other countries and ask for their help and their expertise in plugging that leak and in participating in the cleanup?

Mr. HAYWARD. We sought help from both our immediate peers and competitors in the Gulf of Mexico, and globally from around the world and across America. There are several hundred entities involved in the effort. All of the major operators in this country, major operators from elsewhere in the world such as Petrobras, many of them major academic institutions in this country. Some of the greatest minds in the country are involved in trying to deal with this problem.

Mrs. BLACKBURN. Did they participate at your invitation or the government's invitation?

Mr. HAYWARD. They participated, in the first instance, at our invitation; and subsequently the Federal authorities brought some of the great academic institutions in this country to bear.

Mrs. BLACKBURN. Are you currently—is BP currently working on industry efforts to look at rig safety?

Mr. HAYWARD. We have made recommendations to the MMS with respect to the things that we have learned so far, particularly with respect to blowout preventers. And we will continue, as we learn what the realities of this accident are, to make our recommendations to the relevant authorities. And I believe that in the course of the coming months, the industry will work together to determine what is the best way forward.

Mrs. BLACKBURN. We hope that you are working together because I hope you understand our frustration. You have stated before safety would be a priority for BP. And we expect you all to take action on lessons learned. And when you tell us that you are taking that action and then you return because of what has occurred, Mr. Hayward, I cannot even begin to tell you how disappointing it is to us that you are saying—and you mentioned actions and words in your testimony. But, sir, you are giving the rhetoric. What we want to see going forward is the action that indeed you have learned these lessons, that BP has learned these lessons and that you are going to share these best practices with the industry. That would be very helpful.

Thank you for being before us today. I yield back.

Mr. STUPAK. I thank the gentlelady.

Mr. Hayward, you indicated that you made recommendations on the blowout preventer your company has. Would you provide those to this committee?

Mr. HAYWARD. We certainly can, Chairman.

Mr. STUPAK. Next I will turn to Mr. Markey for questions, please.

Mr. MARKEY. Thank you, Mr. Chairman.

Mr. Hayward, the existence of large clouds or plumes of oil suspended deep beneath the ocean surface are of concern because the toxic oil and dispersants can poison the aquatic plants and animals, and they also consume oxygen, potentially asphyxiating marine life.

On May 30th, you stated that your samples showed no evidence of such plumes. On June 7th in a response to my letter, BP again denied the plumes existed, citing a BP document saying that there is no coherent body of hydrocarbons below the surface.

Even after NOAA Administrator Jane Lubchenco confirmed the plumes' existence on June 8th, your COO, Jeff Suttles, went on national television and continued to deny their existence.

These are photographs presented to us on the committee by Dr. Samantha Joy of the University of Georgia, who has sampled the deep water of the gulf and found such plumes. On the right there is a filter with oil clearly present from water from within a plume as it passed by.

Now, it isn't just university scientist data. I have here up on the screen as well from EPA's Web site entitled, "Subsurface Plume Detected." It was prepared using BP's data. There are 17 red dots indicating that your own data shows evidence of subsurface plumes. This is your data, Mr. Hayward.

Are you now once and for all prepared to concede that there are plumes or clouds of oil suspended deep beneath the surface of the ocean? Yes or no, Mr. Hayward.

Mr. HAYWARD. As I understand the data, Chairman, it indicates that there are—there is oil in very low concentrations, 0.5 parts per million distributed through the column. The detailed analysis that NOAA conducted in three locations around the spill show that in one location, 0.5 parts per million, clearly attributed to this spill.

Mr. MARKEY. Are there plumes of oil beneath the ocean's surface?

Mr. HAYWARD. There are concentrations of oil about 0.5 parts per million in the water column. Some of it is related to this spill. Other samples from been typed to other oil.

Mr. MARKEY. So you do not define that as a plume?

Mr. HAYWARD. I am not an oceanographic scientist. What we know is that there is——

Mr. MARKEY. I am going to take it as a continuing "no" from you. And your testimony continues to be at odds against all independent scientists. Yesterday at the Energy and Commerce Subcommittee on Health, during the hearing the director of the National Institute of Occupational Health and Safety told me in answer to my question that he has asked BP for a roster of all workers multiple times and BP has failed to give him that information that is critical to tracking chemical exposure.

Representative Eshoo and I were both outraged at BP's failure to take such a straightforward step to protect the health of their workers.

Mr. Hayward, will you commit to immediately provide the National Institute of Occupational Health and Safety and the Centers for Disease Control with all of the information that they need to evaluate health impacts and to protect these workers?

Mr. HAYWARD. We have endeavored to provide all information requests as quickly as possible, and we will endeavor to do that as well.

Mr. MARKEY. The head of the National Institute of Occupational Health and Safety testified yesterday that you are not doing that. Will you provide all of the information that they have requested of you?

Mr. HAYWARD. We are endeavoring to provide all of the information requested that we receive, and we will certainly do it for that one.

Mr. MARKEY. Again, the equivocation in your answer is something that is not reassuring to those workers who potentially have been exposed to these chemicals in ways that can impact on their health. BP has dumped 30,000 gallons of drilling mud in the ocean. Drilling mud is often made using synthetic oils and other chemicals, and in this case also may have used significant quantities of antifreeze which is toxic.

Mr. Hayward, will you commit to disclosing the ingredients of the drilling mud?

Mr. HAYWARD. Yes, we will. I believe that all of the mud that has gone into the ocean is water-based mud with no toxicity whatsoever.

Mr. MARKEY. Will you also commit to disclosing all other measurements you have made related to chemical, oil, and methane concentrations in the water immediately?

Mr. HAYWARD. Those are being published, as we make them, on a variety of Web sites. And we will continue to do that. And we will make them available in whatever form is available to all of you.

Mr. MARKEY. And you will give us all of the measurements which you have made?

Mr. HAYWARD. All the measurements we have made have been made available and we will continue to do that.

Mr. MARKEY. Thank you, Mr. Chairman.

Mr. STUPAK. Thank you. Mr. Gingrey for questions, please.

Mr. GINGREY. Mr. Hayward, as demonstrated by the number of cameras in this room, interest in this hearing is at a fever pitch. The anger at BP and the anger at our administration is palpable. You just look at the polls. And we members of this committee have an obligation to get to the bottom of this to address the frustrations of the American people.

The chief executive of ExxonMobil testified just yesterday at the Energy and Environment Subcommittee of this committee that, quote, We would not have drilled the well the way they did, end of quote.

In addition, the president of Shell, John S. Watson, stated, and I quote, It is not a well that we would have drilled in that mechanical setup and there are operational concerns, end of quote.

Mr. Hayward, my profession before Congress was the practice of medicine, obstetrics and gynecology. If I had delivered a baby that resulted in a bad outcome, a seriously bad outcome, and two of my friendly competitors, well-respected peers, said that Dr. Gingrey in this instance practiced below the standard of care, I would be in a serious world of hurt.

Reflecting on the fact that two of your major competitors admitted that BP drilled the Macondo well in a nonstandard way, in retrospect what is your opinion of BP's design plan for the Macondo well?

Mr. HAYWARD. As I tried to explain, there are clearly some issues that our investigation has identified. And when the investigation is complete, we will draw the right conclusions.

Mr. GINGREY. With all due respect, you have had 59 days and you are not exactly moving with fever pitch here. Do you believe BP was drilling the well following the best safety practices you were focused on reinvigorating when you were promoted to the position of CEO a couple of years ago?

Mr. HAYWARD. I have no reason to conclude that wasn't the case. If I found at any point that anyone in BP put cost ahead of safety, I would take action.

Mr. GINGREY. Do you believe that the decisions made regarding Deepwater Horizon on and leading up to April the 20th, such as a decision to use only 6 centralizers instead of 21, the decision to not run a cement bond log, do you believe those decisions reflect the normal decision making process at BP, or would you characterize those decisions as an exception to normal operating procedures?

Mr. HAYWARD. There is nothing I have seen in the evidence so far that suggests that anyone put costs ahead of safety. If there are, then we will take action.

Mr. GINGREY. Let me put it this way, Mr. Hayward, in the remaining time that I have left. If you had been physically present on that rig, along with the 11 men that were killed, would you have made the same decisions as were made? Would you have approved the decision to use only 6 centimeters, despite the recommendation to use 21? Would you have made the decision to not run a cement bond log if you had been standing on that Deepwater Horizon rig?

Mr. HAYWARD. I am not the drilling engineer, so I am not actually qualified to make those judgments. Better people than I were involved in those decisions in terms of the judgments that were taken. And if our investigation determines that at any time people put costs ahead of safety, then we will take action.

Mr. GINGREY. With all due respect, Mr. Hayward, I think you are copping out. You are the captain of the ship, and it has been said by members on both sides of the aisle of this committee, we had a President once that said, the buck stops on my desk, a very distinguished President. And I think the buck stops on your desk. And we are just not getting, I don't think, the answers from you that need to be presented to this committee in a forthright manner. It is a little frustrating for all of us and it seems like your testimony has been way too evasive.

Mr. Chairman, I will yield back at this time.

Mr. STUPAK. Thank you, Mr. Gingrey. Mr. Braley for questions, please.

Mr. BRALEY. I want to follow up on my friend from Oklahoma's questions about the culture of safety at BP, Mr. Hayward, because you have stated repeatedly since you took over as CEO of BP, that safe reliable operations are a number one priority, correct?

Mr. HAYWARD. That is correct.

Mr. BRALEY. And you have been CEO for the past 3 years, correct?

Mr. HAYWARD. Correct.

Mr. BRALEY. Then explain to us why between June of 2007 and February of 2010, the Occupational Health and Safety Administration checked 55 oil refineries operating in the U.S.; 2 of those 55 are owned by BP, and BP's refineries racked up 760 citations for egregiously willful safety violations accounting for 97 percent of the worst and most serious violations that OSHA monitors in the workplace. That doesn't sound like a culture of safety.

Mr. HAYWARD. We acknowledge we had very serious issues in 2005 and 2006.

Mr. BRALEY. I am not talking about 2005 and 2006. I'm citing from an OSHA study between June of 2007, on your watch, and February of 2010 where OSHA said BP has a systemic safety problem. And of those 760 that were classified as egregious and willful, it is important to note that that is the worst violation that OSHA can identify. And their definition is a violation committed with plain indifference to or intentional disregard for employee safety and health; 97 percent of all of those egregious violations at U.S. refineries on your watch were against your company.

That doesn't sound like a company that, to use your words, is committed to safe, reliable operations as your number one priority. There is a complete disconnect between your testimony and the reality of these OSHA findings; do you understand that?

Mr. HAYWARD. I understand what you are saying.

Mr. BRALEY. So we also had Mr. Barton earlier make this comment about what happened at the White House yesterday. Were you there for that conference with the White House?

Mr. HAYWARD. I was.

Mr. BRALEY. Do you think that BP was shaken down by the Obama administration to come up with this $20 billion compensation fund?

Mr. HAYWARD. We attended the White House at the invitation of the government to form a way forward and try and work together to deal with the leak, the response to the leak, and to make a return of the Gulf Coast to its past. And that is what we are going to do.

Mr. BRALEY. I realize that we speak the same language, but it is not always the same language when we speak English in the United States and English in Great Britain. So I want to make sure I am clear on this. Here in this country, the word "shaken down" means somebody in a position of disadvantage is forced to do something against their will. Is that how you viewed these negotiations at the White House yesterday?

Mr. HAYWARD. As I said, we came together to figure out a way of working together to resolve what is clearly a very, very serious situation.

Mr. BRALEY. And the reason you came together, sir, is because it was not only in the best interest of the United States taxpayers and the citizens of this country, it is also in the best interest of BP to try to get this problem solved so that it can move forward; isn't that true?

Mr. HAYWARD. It is undoubtedly true. We would like to resolve this issue, as would everyone else.

Mr. BRALEY. When the ranking member referred to this compensation fund—which I applaud as a positive step forward—as a slush fund, I want you to know that in this country that implies a very negative connotation as something illegal, below the surface of what is acceptable.

Did you consider this compensation fund for people who had lost their lives, lost their businesses, lost their environment, lost their ability to—did you consider that to be a slush fund?

Mr. HAYWARD. As we said yesterday, the fund is a signal of our commitment to do right; to ensure that individuals, fishermen, charter boat captain, small hotel owner, everyone who has been impacted by this is kept whole. That is what I have said from the very beginning of this and that is what we intend to do. And as I said in my testimony, I hope people will now take—see that we are good for our word.

Mr. BRALEY. Can we take that as a "no" in response to my question, sir, that you did not consider this to be a slush fund?

Mr. HAYWARD. I certainly didn't think it was a slush fund, Congressman.

Mr. BRALEY. Thank you. I will yield back.

Mr. STUPAK. Mr. Latta for questions, 5 minutes.

Mr. LATTA. Thank you, Mr. Chairman.

Thank you for being with us, Mr. Hayward. Earlier in the morning, our ranking member, Mr. Burgess, had asked a question and you responded by—if I wrote it down here correctly, that everything we do is subject to regulatory oversight. And who is that when we are talking about regulatory oversight?

Mr. HAYWARD. The regulatory oversight of the deepwater drilling operations is the Minerals Management Service.

Mr. LATTA. But here in the Federal Government, who would be out on the rig for that oversight?

Mr. HAYWARD. It is the inspectors of the Mineral Management Service, I believe.

Mr. LATTA. I am sure there are records out there. When was the last time that the MMS would have been on the rig?

Mr. HAYWARD. I am afraid I am not aware of that date. But I imagine it was relatively shortly before the incident.

Mr. LATTA. Do you know of any citations that were issued during the time they were on the rig?

Mr. HAYWARD. I am not aware of any citations, no.

Mr. LATTA. Let me ask this question. I know I have talked to quite a few Members from the Gulf Coast and also from these reports, and there have been many, many cases out there where they are talking about it takes almost 5 days for a turnaround time and once it starts—I came from local government. So the chain of command out there for local government, the State Government and depending what is the chain is out there, but they are saying over and over and over it takes about 5 days. A lot of times they say they have to go talk to BP.

And I was just wondering—because knowing that time is of the essence out there because of all of these critical matters that are

happening, why is this, that they say they have to go ask BP and this turnaround time takes so long?

Mr. HAYWARD. I am afraid I cannot answer that question. I don't know.

Mr. LATTA. Could you get that information for us?

Mr. HAYWARD. We can, yes, sir.

Mr. LATTA. I guess the next question, you will probably have the same response. The question is: Who set the procedure up this way that we would have a situation where it would take a 5-day turnaround time? Do you have any knowledge of that?

Mr. HAYWARD. I am afraid I don't know.

Mr. LATTA. After the disaster occurred, have you had direct contact with the White House, and do you have a direct person at the White House that you have been dealing with when problems arise that you can get things turned around quickly?

Mr. HAYWARD. My primary contact through all of this has been with Admiral Thad Allen who is the National Incident Commander. And he and I talk on a very regular basis.

Mr. LATTA. When you say "on a very regular basis," how often would that be?

Mr. HAYWARD. Typically once a day, often more than once a day.

Mr. LATTA. Again, as the lady from Tennessee, we have a kind of frustration level on getting some responses. But with that, Mr. Chairman, I am going to yield back.

Mr. STUPAK. Thank you, Mr. Latta. Ms. DeGette for 8 minutes, please.

Ms. DEGETTE. Thank you so much, Mr. Chairman.

Mr. Hayward, in your initial testimony, you testified that BP has drilled hundreds of wells around the world. How many of them are deepwater wells?

Mr. HAYWARD. I don't know the precise number, but we drill a lot of deepwater wells in various parts of the world.

Ms. DEGETTE. OK. You don't know how many. Do you think that BP wells—irrespective of where they are drilled—should be drilled to the highest industry standards?

Mr. HAYWARD. I believe that is what we try to do.

Ms. DEGETTE. So your answer would be yes?

Mr. HAYWARD. Uh-huh.

Ms. DEGETTE. As this well was being drilled, were you informed as CEO of the company, of the progress of the well?

Mr. HAYWARD. I was not.

Ms. DEGETTE. You were not.

Before I continue, I know you had difficulty answering some of the technical questions members have asked you, so I know you brought a technical expert with you, Mr. Zanghi. Would you like us to swear him in so he can help you answer some of my technical questions?

Mr. HAYWARD. I think that depends on the question.

Ms. DEGETTE. Let's see how it goes. Mr. Hayward, you said that you received the chairman's June 14th letter to you which talked about five decisions that compromised the safety of this well: well design, centralizer, cement bond log, mud circulation and lockdown sleeve.

I want to ask you in my question about one of those issues and that is the cement bond log. First thing I want you to do, if you can take that notebook that is to your left, open it up. In the front flap there is a memo which was written from Brian Morel to Richard Miller on Wednesday, April 14th. And that memo says, This has been an nightmare well, which has everyone all over the place.

Did anybody inform you as CEO of the country—company—in April of this year that this was a nightmare well?

Mr. HAYWARD. They did not.

Ms. DEGETTE. Did you consequently see this memo? Have you seen this memo?

Mr. HAYWARD. I saw this memo when it was raised by your committee.

Ms. DEGETTE. And that is the first you ever heard of it?

Mr. HAYWARD. That is the first time——

Ms. DEGETTE. Is that the first you ever heard it of being a nightmare well?

Mr. HAYWARD. When I first saw this——

Ms. DEGETTE. Now, let us talk for a minute about the cementing job because all of the testimony that we have had in this committee through our hearings, also in the Natural Resources Committee through their hearings, indicates that the choices that BP made—and its subcontractors—in order to save money led to blind faith in a successful cementing job. Let me just walk through it first so that you can understand.

First of all, BP chose a riskier well design and the chairman, Chairman Waxman, talked about this for a moment. The best practice would have been to use a liner and a tieback which provides four barriers to prevent the flow of dangerous hydrocarbons to the wellhead. Instead, BP as the chairman said, chose a long-string approach which has only two barriers.

An internal document of the company warned that this approach was not recommended because, quote, cementing simulations indicate it is unlikely to be a successful cement job. And you can look at Tab 6 of the notebook you have in front of you to see that, Mr. Hayward. It says, Cement simulations indicate it is unlikely to be a successful cement job due to formulation breakdown.

This is an internal BP confidential document from mid-April. Have you seen this document before?

Mr. HAYWARD. I saw it as a consequence of the letter that——

Ms. DEGETTE. But you did not see it at the time?

Mr. HAYWARD. I did not see it at the time.

Ms. DEGETTE. But there were BP folks who saw it, correct?

Mr. HAYWARD. There were certainly BP people who saw this.

Ms. DEGETTE. So the document says there would be a potential need to verify with the bond log and perform a remedial cement job, but BP chose the riskier approach.

Secondly, BP chose the riskier centralizer option. Experts have told us in testimony to this committee that the best practice would have been to use 21 centralizers, but BP only used 6. If you take a look at Tab 8, it says on Page 18, it says you did this even though your cementer, Halliburton, said this would create a, quote, severe risk that the cement job would fail. It says based on—it says that it would be a severe risk.

And BP's operations drilling engineer wrote about this decision: Who cares, it's done, end of story; will probably be fine and get a good cement job.

Were you aware of that document at the time, Mr. Hayward?

Mr. HAYWARD. I was not aware of any of these documents at the time.

Ms. DEGETTE. When did you learn about that memo?

Mr. HAYWARD. That memo was, again, when I was made aware of it by your committee.

Ms. DEGETTE. But you wouldn't deny that BP employees and supervisors were aware of that document at the time, correct?

Mr. HAYWARD. There were people in BP who were aware of that document.

Ms. DEGETTE. Would you say it is the best business practices to say, Who cares, it is done, end of story, will probably be fine and we will get a good cement job?

Mr. HAYWARD. I think that is, you know, a cause for concern. I would like to understand the context in which it was sent. And as I have said a number of times, if there is any evidence that people put costs ahead of safety, then I will take action.

Ms. DEGETTE. I understand. Let me finish with the cement bond.

Now, BP failed to perform the most effective test that was known to determine whether the cement was properly sealed, and that is the cement bond log test. There was a contractor, Schlumberger, on board, hired to perform this test, but they were sent away 11 hours prior to the explosion. This test was described by Halliburton's chief safety officer, Tim Porbert, as quote: The only test that can really determine the actual effectiveness of the bond between the cement sheets, the formation and the casing itself.

Now, the committee has consulted an independent expert who said that cement bond loss should always be used. Another expert said it is unheard of not to perform this test. He called your decision, and I am quoting, horribly negligent.

So I want to ask you a question. Do you think, as CEO of this company, it was a mistake not to conduct the cement bond log test?

Mr. HAYWARD. That is what our investigation will determine. As I——

Ms. DEGETTE. So your answer would be, yes, it was a mistake, correct?

Mr. HAYWARD. I am not able to answer "yes" or "no" until the investigation is complete. When we finish——

Ms. DEGETTE. Have your lawyers told you not to or what?

Mr. HAYWARD. Simply because I wasn't involved. I am sorry.

Ms. DEGETTE. OK. But you just said you think that all the evidence shows it was a mistake, correct?

Mr. HAYWARD. That is not correct. That is not what I said.

Ms. DEGETTE. OK. Do you think it was all right not to conduct it?

Mr. HAYWARD. I think we need to complete the investigation——

Ms. DEGETTE. OK. Well——

Mr. HAYWARD [continuing]. And determine whether running a cement bond log or not would have created a major difference to what happened here.

Ms. DEGETTE. OK. Let me ask you this: Are you aware of the fact that it would have cost about $128,000 and taken 9 to 12 hours to complete the cement bond log test?

Mr. HAYWARD. I am aware of that fact, yes.

Ms. DEGETTE. Yes. OK.

OK, I yield back. Thank you, Mr. Chairman.

Mr. STUPAK. Thank you.

Mr. Doyle for questions, please.

Mr. DOYLE. Thank you, Mr. Chairman.

Mr. Hayward, in your testimony, you said that some of the best minds and the deepest expertise are being brought to bear on the oil spill and that it is difficult to imagine the gathering of a larger, more technically proficient team in one place in peacetime. Now, I know that is meant to reassure us that everything possible is being done, but it does make me wonder who was making these key decisions before the accident.

Now, one of these key decisions was which type of pipe to insert in the well, a single tube from the top or a two-piece liner with a tieback set-up. Now, the second design offers more barriers to unintended gas flow. And, on Tuesday, the other oil companies that we talked to told us they would have chosen that design.

Looking back, the decision that BP made appears to have had serious consequences. Mr. Hayward, were you involved in that decision?

Mr. HAYWARD. I was not involved in that decision.

Mr. DOYLE. Were you aware of that decision?

Mr. HAYWARD. I was not involved or aware of any of the decisions around this well as it was being drilled.

Mr. DOYLE. We asked your representatives, who are the senior BP executives who are responsible for the Macondo well. They told us it was Andy Inglis, the chief executive for exploration, and Doug Suttles, the chief operating officer for exploration.

Can you tell me, was Andy Inglis involved in this decision?

Mr. HAYWARD. I am afraid I can't answer that question. I genuinely don't know. I would be very surprised.

Mr. DOYLE. What about Doug Suttles, was he involved in the decision?

Mr. HAYWARD. I would also be very surprised if Mr. Suttles was involved in any decision.

Mr. DOYLE. So we have reviewed all of their e-mails and communications. We find no record that they knew anything about this decision. In fact, we find no evidence that they ever received briefings on the activities aboard the Deepwater Horizon before the explosion. These decisions all seem to have been delegated to much lower-ranking officials.

Well, Mr. Hayward, then, who was the one who made the decision to use a single tube of metal from the top of the well to the bottom? Who did make that decision?

Mr. HAYWARD. I am not sure exactly who made the decision. It would have been a decision taken by the drilling organization in the Gulf of Mexico. They are the technical experts that have the technical knowledge and understanding to make decisions of that sort.

Mr. DOYLE. But you can't tell this committee who that person was?

Mr. HAYWARD. I can't, sitting here today, I am afraid.

Mr. DOYLE. You can get this information to our committee? I mean, I think it is pretty amazing that this is the decision that had enormous consequences and you can't even tell the committee who made the decision on behalf of your company.

And the reason I am asking you these questions is because your industry is different than many. You are not the CEO of a department store chain where it is fine to leave decisions about running the store to branch managers. You know, if a department store middle manager makes a mistake, there are no life-or-death consequences.

What you do is different. You are drilling far below sea level into a region that is more like outer space than anything else. The consequences of that drilling are huge. If a mistake or misjudgment is made, workers on the rig can get killed and an environmental catastrophe can be unleashed.

The best minds in the senior leadership of a company should be paying close attention to those risks. But it didn't happen here. And now we are all paying the consequences because those of you at the top don't seem to have a clue about what was going on on this rig.

Now, I am sitting here thinking I could be a CEO of an oil company. I hear it pays a little bit better than being a Member of Congress. Because I have watched you in front of this committee; you are not able to give us much information on anything here.

I want to ask you one last question while I have some time. You told us that you are doing everything possible to stop this well from leaking, but it seems to me that what we are left with now is waiting for this relief well to be drilled. And that is going to happen sometime in August.

So, you know, today is June 17th. Now, back in 1979, the Ixtoc I took over 9 months to cap after drilling several relief wells. And that well was only 160 feet down into the ocean, while the Macondo well is over 5,000 feet below the surface of the ocean.

Can you tell us today, have you abandoned any other efforts to kill this well? Are we at the point now where BP is doing nothing until the relief well gets down there? Or are you trying some different technology or some other way to kill the well, you know, before you get a relief well down there? Is there anything else on the horizon?

Mr. HAYWARD. I am afraid there are no other options to kill this well other than from the well at the base of the reservoir. As you are all aware, we tried to kill the well from the top, using the Top Kill operation, and the pressures in the well are such that it is not possible to do that. So we have to rely on the relief wells.

In the interim, we are continuing to contain as much of the oil we can. And that operation is currently containing 20,000 barrels a day. By the end of this month, we will have the ability to contain between 40,000 and 50,000 barrels a day and, by the middle of July, between 60,000 and 80,000 barrels a day.

Mr. DOYLE. I will ask you the same question I asked other oil executives on Tuesday. Why wouldn't you just drill relief wells

when you drill the main well, so that if something like this happened, instead of us waiting 2, 3 months and watching millions of barrels of oil come into the ocean, destroying our ecosystem and our way of life on the gulf coast, that you could kill that well in a short period of time?

I understand the extra relief well would cost you a little bit more money, but it seems to me, in this case, it would have saved you billions of dollars. What are your thoughts on drilling relief wells along with main wells?

Mr. HAYWARD. I think we will need to look at all of the options available to us going forward with respect to deepwater exploration.

Mr. DOYLE. I see my time is up, Mr. Chairman. Thank you.

Mr. STUPAK. Thank you, Mr. Doyle.

Ms. Schakowsky for questions, please.

Ms. SCHAKOWSKY. Thank you, Mr. Chairman.

I wanted to focus on the mindset of BP when it comes to its workers. You said in your opening statement that you were personally devastated, you attended a memorial service for those men. "It was a shattering moment. I want to offer my sincere condolences to their friends and families. I can only imagine their sorrow."

Probably not as devastated as the widows that testified before our committee. And I asked them: What about BP, what kind of contact have you had with BP since the incident—letters, phone calls, visits? And Natalie Roshto said, "Two BP men attended James's services, and they never extended a hand, a hug, never extended a 'we're sorry,' their condolences. The only words that came out of their mouth was where they were to be seated, and I never saw them after that."

I asked, "What about you, Mrs. Kemp?" "Two BP men came to Wyatt's services, and one extended his hand. I shook it. He told me he was very sorry for my loss. He asked if he could hug me; he did. The other gentleman extended his hand, told me who he was. And they sent two plants to the service. And that is the extent of my conversation or any dealings with BP."

That's it. Do you feel that you owe something more to those women, just in terms of expressing something and some—and more?

Mr. HAYWARD. As I said, I am devastated by the accident, absolutely devastated. And I feel great sorrow for the people who have been impacted by it.

Ms. SCHAKOWSKY. Well, they haven't heard anything.

Mr. HAYWARD. The people who were killed in the accident were not BP employees. They were employees of Transocean and another contractor. And both of them made it very clear that they wanted to deal with the families. We have provided support to both Transocean and——

Ms. SCHAKOWSKY. I guess I was talking about human beings——

Mr. HAYWARD. And we have made it clear that we will provide all and every need for the families, but the——

Ms. SCHAKOWSKY. OK, let me ask another question. There were BP personnel on the rig, and we read that oil workers from the rig were held in seclusion on the open water for up to 2 days after the April 20 explosion while attorneys attempted to convince them to

sign legal documents stating that they were unharmed by the incident.

The men claimed that they were forbidden from having any contact with concerned loved ones during that time and were told that they would not be able to go home until they signed the documents they were presented with. After being awake for 50 harrowing hours, Stephen Davis caved in and signed the papers. He said most of the others did, as well.

Do you think this is an appropriate way to treat people that experience that? And since you are executives, you had people on the rig, what was their feeling about that, what is your feeling about that?

Mr. HAYWARD. I think it is inappropriate, and it was nothing to do with BP.

Ms. SCHAKOWSKY. I see. And BP had no comment on it and had no opportunity—I mean, did the company know about it? Was there any——

Mr. HAYWARD. I don't believe we were aware it was taking place, but it was certainly nothing to do with BP.

Ms. SCHAKOWSKY. OK. Well, I did mention during my opening statement this document that basically says, "Such voluntary effort shall be at my own risk," that people were made to sign. And there were two court appearances that were needed to finally get BP to take responsibility.

But what I understand is that BP continued to fail to provide adequate protective gear to the fishermen. And on May 16th, OSHA issued a detailed directive on the training requirement for specific tasks to responders and stated that OSHA had officials monitoring the training and observing the cleanup.

But, according to testimony we heard in Louisiana, still, BP failed to provide respirators to the workers exposed to the crude oil, and the workers experienced health impacts. The workers were afraid to speak up due to the potential to lose their jobs. Those fishermen who attempted to wear respirators while working were threatened to be fired by BP due to the workers using the respirators.

Do you know anything about that?

Mr. HAYWARD. I am not aware of that. What we clearly are endeavoring to do is to ensure that anyone involved in the response is appropriately provided with whatever safety equipment is required.

Ms. SCHAKOWSKY. Endeavoring to provide?

Mr. HAYWARD. Well, we——

Ms. SCHAKOWSKY. Are the workers currently provided with what they need?

Mr. HAYWARD. Absolutely. In every case, we are trying to make certain that people do not put——

Ms. SCHAKOWSKY. You are trying to make certain, but is all the equipment there and are all these workers protected?

Mr. HAYWARD. To my knowledge, yes.

Ms. SCHAKOWSKY. Thank you.

I yield back.

Mr. STUPAK. Thank you.

We will next turn to Mr. Ross for questions, please.

Mr. ROSS. Thank you, Mr. Chairman.

And, Mr. Hayward, since my opening statement, up to 416,666 gallons of oil have leaked into the gulf. That was about 4 hours ago.

In our opening statement 4 hours ago, I asked you to be open with us and honest with us in your responses. And, instead, it seems as though we are getting statements memorized by you and provided by your legal counsel.

I don't know if BP quite understands how angry the American people and the world is at them. I can tell you it is rare that you see Democrats and Republicans on this panel agreeing with one another, and yet it has been pretty consistent today, with a few major exceptions, the level of discontent and anger and frustration at BP.

I also watch this on the news, and it seems to me that BP has not been honest with the American people, it has not been honest with our government, and it seems as though you are trying to hide something.

Sir, it is hard to hide 2.5 million gallons of oil a day pouring into the gulf. We want answers. We want you to be honest and open with us. And we want to finally see the kind of transparency that you have been talking about.

I have a few questions for you.

BP is currently in the process of drilling two relief wells to stop the flow of oil that may or may not work, which you have said will be finished by August.

After these relief wells are finished and the leak has been stopped, what does BP plan to do with these wells? Do you plan to put these wells into production to make a profit off of them, or do you plan to shut them down after the situation has been resolved?

Mr. HAYWARD. They will be shut down after the situation has been resolved. The first relief well, we will pump mud down the relief well to kill the well, to kill the current well that is flowing, and then cement it up.

Mr. ROSS. A recent article in the New York Times reported that the cleanup effort thus far has created over 250 tons of solid waste and 175,000 gallons of liquid waste that are now being carted away from the gulf coast and shipped off to landfills.

BP executives have stated that had this waste, which is admittedly hazardous and destructive to our ocean environment, is perfectly safe to dump in our Nation's landfills. You have polluted our coast and our air with this tragic spill, and now you are shipping the waste you collect and dumping it near our homes and our water sources.

I want to know where this waste is going. And are you shipping it throughout the country? How can we be sure it has been treated and is safe?

Mr. HAYWARD. I don't know the details of that, but I can assure you that we will do the right thing to ensure that it is treated in the proper and appropriate way.

Mr. ROSS. Can you provide me and this committee with a response?

Mr. HAYWARD. We certainly can.

Mr. ROSS. Let me try this, in the time I have left. This has been asked several times, and I don't think we have gotten an answer yet.

We all know about the e-mails from BP employees expressing their concerns about the casing procedures, including an April 15th e-mail from your drilling engineer, Brian Morel, who described the well as, quote, "a nightmare well."

How much were the drilling engineers consulted in the decision to use the single string casing? Was this a bottom-up decision in which the people actually connected to drilling the operation had some influence, or did it come from the top down?

Mr. HAYWARD. As I understand it from the discussion with our investigation team and from the review of the documents, there was a discussion taking place amongst the drilling engineering team responsible for this well. And that is how the decision and the judgments were taken.

Mr. ROSS. So would you call that a bottom-up decision or a top-down decision?

Mr. HAYWARD. I would say it was a decision taken by the right experts with the right technical knowledge to make the decision.

Mr. ROSS. In your testimony, you note that you are currently drilling two relief wells which will ultimately stem the flow of oil.

In previous testimony from BP and Transocean, we have heard that there are numerous redundancies built into all of your equipment and in all of your personnel procedures to ensure that your company does the very best it can to ensure that tragedies like the one we have seen unfold over the past 59 days don't occur.

My question is this: Do you view these relief wells as an on-off switch? When these wells are complete, are they going to stop the flow of oil into our ocean? If so, why didn't you predrill emergency relief wells prior to this whole mess? It has been asked before; we are still waiting for a good answer.

Did you do cost-benefit analysis and determine that it was cheaper to drill one well, spend years rolling in profits from the oil you managed to capture, and then potentially pay a massive sum to clean up an inevitable tragedy? Which was it, sir?

Mr. HAYWARD. We believed that the blowout preventer was the ultimate fail-safe mechanism. That clearly was not the case in this instance.

It failed on three separate indications: It failed when it was activated on the drilling rig at the time of the incident. It failed to operate when the drilling rig separated from the blowout preventer, as it should have done. And it failed to activate when we had submersible robots at the blowout preventer within 24 hours of the incident.

That was the fail-safe mechanism.

Mr. ROSS. Mr. Chairman, I see I am out of time.

Mr. STUPAK. Thank you, Mr. Ross.

Mrs. Christensen for questions.

Mrs. CHRISTENSEN. Thank you, Mr. Chairman.

Mr. Hayward, you have pledged $20 billion for a trust fund, which I see is a commitment to meet BP's obligation—and not a slush fund, just for the record.

My question is, are health payments such as for any illnesses that residents or workers may develop as a result of the spill covered in your statement to cover all legitimate claims? And what about Federal and local government outlays of health and other personnel, are they covered under that?

Mr. HAYWARD. Claims of that sort are covered under the fund.

Mrs. CHRISTENSEN. Thank you.

Several individuals and organizations have called for more people and more expertise to assist in fighting what is increasingly being called a war. General Honore calls it World War III and calls for it to be fought as such.

What is not part of the effort that needs to be? What is missing? And do you feel that you need more hands, more people to effectively fight this so-called war and prevent the oil from creating any more damage?

Mr. HAYWARD. We have been fighting a battle on three fronts since the very beginning: to eliminate the leak, to contain the oil on the surface, and to defend the shore.

And it is now the task now of the incident commander, the national incident commander, Thad Allen, to determine what further resources are required. It is a conversation that he and I have on a regular basis, to try and ensure that we have the right resources in the right place at the right time to deal with the incident.

Mrs. CHRISTENSEN. So, as of your last conversation with Admiral Allen, the sense was that you had all that you needed and all of the people that you needed?

Mr. HAYWARD. We are continuing to work the issue of defending the shore, to try and mitigate to the maximum extent possible the amount of oil that comes onshore. That is where we can still do more to defend the beaches.

Mrs. CHRISTENSEN. OK. Thank you for your answer.

You state in your testimony that the events of 4/20 were not foreseen by you. But in light of the several areas of concern that have been raised, shouldn't someone have foreseen and been able to prevent the explosion?

For example, I understand that there is supposed to be a policy where any one person on a rig can shut it down if they perceive a problem. Is this a real policy that is enforced and reinforced in training, or is it something just on paper? Because that didn't seem to happen in this instance, even though some Transocean, some Halliburton, and even BP employees reportedly had serious concerns.

Mr. HAYWARD. It is a policy that is real. And if anyone at any time believes that what they are doing is unsafe, they have both the right and the obligation to stop the task.

Mrs. CHRISTENSEN. And are you surprised that no one, given what we are hearing—and I know the investigation is not complete—that no one made that decision to shut the rig down?

Mr. HAYWARD. I think, in the light of what we now know, it is of course surprising that someone didn't say that they were concerned. And I think that is to the heart of the investigation, to understand exactly what the events were and why there was not a different decision taken with respect to the event, particularly in the last 5 or 6 hours on the day of the incident.

Mrs. CHRISTENSEN. There was a company that was supposed to do the—I think it was Schlumberger, that was on the rig at the time and left. Now, when we were in New Orleans, we were told in the hearing that they left because of concern for safety, but other reports said that they left because they were told they weren't needed. What is, in your analysis, the correct reason?

Mr. HAYWARD. I believe it is clear that they left the rig because they had completed the task, or the task that they had anticipated to do was not required.

Mrs. CHRISTENSEN. OK. So, as far as you know, it was not that they felt unsafe, as we were told in New Orleans?

Mr. HAYWARD. It was nothing to do, I don't believe on the basis of anything that I have seen, that it was anything to do with safety.

Mrs. CHRISTENSEN. OK. My last question: In your testimony, you say, and I am quoting, "BP is a responsible party under the Oil Pollution Act," and you distinguish that terminology from any implication of legal liability, which is still being investigated.

When you say "a," do you think that you are the sole responsible party? Or might there be others? And, if so, who?

Mr. HAYWARD. The government has named four responsible parties. They are BP, Transocean, Mitsui, and Anadarko. They have all been named as responsible parties in this incident.

Mrs. CHRISTENSEN. The last two were?

Mr. HAYWARD. Mitsui, Anadarko, Transocean, and BP.

Mrs. CHRISTENSEN. Thank you.

Thank you, Mr. Chairman. My time is up.

Mr. STUPAK. Thank you, Mrs. Christensen.

Next for questions would be Mr. Welch. He is not here.

Next would be Mr. Green for questions, please.

Mr. GREEN. Thank you, Mr. Chairman.

Mr. Hayward, the day before yesterday, Mr. Tillerson from ExxonMobil testified Tuesday that, in the aftermath of the Exxon Valdez accident, ExxonMobil launched a full-scale, top-to-bottom review of their operations and implementing far-reaching actions that today guide every operation decision they make on a daily basis.

Have there been any specific reforms that BP has implemented following the Alaska pipeline accident and the Texas City refinery disaster?

Mr. HAYWARD. We have implemented major, major change following the incidents in 2006 and 2007. We have implemented changes to our people, in terms of the skills and capabilities we have. We have implemented changes to the training that they get and the expertise that they develop. And we have implemented significant changes to all of our operating practices, including the implementation of an operating management system that covers all of the company's operations. It has been a root-and-branch review, from top to bottom.

Mr. GREEN. I guess my concern is, having followed both the Alaskan pipeline and the Texas City refinery disaster, those reforms haven't worked.

What will be done differently this time? In the last almost 60 days, has there been some discussion on why the reforms from the Texas City and the pipeline, the Alaska pipeline, hasn't worked?

And, again, you know the information our committee has. You received a letter 2 days ago on some of the decisions that were made literally on the rig by BP's representatives.

What, going forward from here, will we know 5 years from now that we won't have to repeat what we are doing this time?

Mr. HAYWARD. That is why I am so determined to get to the bottom of this incident, such that we can learn from it and make changes to ensure that it doesn't happen again.

Mr. GREEN. What has happened with your drilling procedures internationally? I know there are different standards for different companies. Our committee heard testimony from the executive a few days ago that, typically, Norway and the Scandinavian countries have the toughest offshore drilling. I know BP is active in Norway.

Is there a significant difference on what you do in the Gulf of Mexico as compared to what you do off the coast of Norway or even off the coast at Edinburgh or off the coast of Great Britain?

Mr. HAYWARD. We approach with the same standards globally. And the truth is that the rules and regulations, as I understand it, in the Gulf of Mexico are higher than they are, for example, in the North Sea and the U.K. Sector, in terms of the requirements.

So we will continue to learn from this incident and make changes to ensure that it cannot happen again. And it will be global.

Mr. GREEN. OK.

Thank you, Mr. Chairman.

Mr. STUPAK. Thank you, Mr. Green. Do you yield back?

Mr. GREEN. Yes.

Mr. STUPAK. Mr. Green yields back.

I next turn to Mr. Barton, ranking member, for questions, please.

Mr. BARTON. I thank you, Chairman Stupak. I appreciate the opportunity to ask some questions.

Mr. Hayward, yesterday when we had a hearing in a different subcommittee of this full committee, we had four CEOs of other oil companies. I think to a person—and I could be wrong about this—but I think they all indicated that they either would not have drilled this well or at least would not have drilled it the way BP drilled it.

What is your response to that?

Mr. HAYWARD. I want to understand exactly what happened through our investigation, to compare it with other practices, to determine what is the truth. And I can't comment today on that.

Mr. BARTON. All right.

I have had off-camera discussions with a number of experts in the drilling processes for the deep Gulf of Mexico, and they all say that BP has a different culture. For example, in most of the other companies that operate in the deep gulf, there are a number of individuals on site that have what is called stop-order authority. In other words, if they see something that is going on that compromises safety or integrity, they have the ability to stop production. But I am told that BP doesn't give that authority, that it is further up the chain of command.

Is that correct? And, if so, is that something that BP may consider changing, given what has happened?

Mr. HAYWARD. On a drilling operation such as this, anyone can stop it—the BP man, the Transocean driller, the Transocean tool pusher, the OIM, or the BP on-site leader. It requires everyone to agree to continue, and if there is one person who does not agree, then they do not. Anyone.

Mr. BARTON. So when I am told that the BP culture in terms of this authority is different, I have been told incorrectly?

Mr. HAYWARD. I believe that is so, Congressman.

Mr. BARTON. OK.

In terms of the two relief drills that are currently being drilled, are they being drilled using the same procedures as this well, or are they being drilled differently? In other words, some of the things that weren't used on this well—the double casing, things of this sort—are those relief wells going to use these enhanced safety procedures?

Mr. HAYWARD. There are clearly some areas of concern, as we have identified in our investigation—cement casing. And the relief wells are being drilled with all of those issues absolutely foremost in the procedure.

Now, clearly, the relief wells are rather different because of what they have to do. But all of the things that we have learnt, to date, from our investigation have absolutely been incorporated into the activity that is taking place with respect to the relief wells.

Mr. BARTON. OK.

Have you either read or been at least given a summary of the letter that Chairman Waxman and Chairman Stupak sent earlier in the week that lists the five or six outstanding—or what they consider, what the staffs consider to be the anomalies in this well and the safety concerns? Are you familiar with that letter?

Mr. HAYWARD. I am familiar with that letter.

Mr. BARTON. OK. Do you agree in general with the concerns that are raised there about the lack of, for lack of a better term, a safety collar being employed, the number of devices that could have stopped the oil and gas venting and escaping up the well? Somebody recommended, I think, 21 or 22, and BP made a decision to only use six.

Now that you know what has happened, do you share some of the concerns that that letter raises?

Mr. HAYWARD. I think I share the concern about the number of contributing factors that may have—that have created this incident. They are focused on the cement, on the casing, on the integrity test, on the well control procedures, and on the complete failure of the blowout preventer.

And they are all areas that I believe we really need to understand fully before we draw conclusions about how this accident occurred.

Mr. BARTON. My final question is, based on what you now know, do you agree with the general conclusion expressed yesterday that this was a preventable accident?

Mr. HAYWARD. I believe that all accidents are preventable, absolutely.

Mr. BARTON. OK.

Finally, Mr. Chairman, if I may take a small point of personal privilege, I want the record to be absolutely clear that I think BP is responsible for this accident, should be held responsible, and should in every way do everything possible to make good on the consequences that have resulted from this accident.

And if anything I said this morning has been misconstrued in opposite effect, I want to apologize for that misconstruction.

With that, Mr. Chairman, I yield back.

Mr. STUPAK. Thank you, Mr. Barton.

Ms. Sutton for questions.

Ms. SUTTON. Thank you, Mr. Chairman.

Mr. Hayward, this testimony has been fascinating.

We have heard a lot about your desire to come in and improve the safety of operations everywhere in the world, something to that effect. And you listed another top priority: to conduct BP's business in a way that is in tune with the world without damaging the environment.

Would you agree that BP did not meet those goals on the Deepwater Horizon rig?

Mr. HAYWARD. I think it is clear that I regret, BP regrets what has happened here deeply.

Ms. SUTTON. So, obviously, BP did not meet those goals on the Deepwater Horizon rig. But, Mr. Hayward, the concern beyond that is there seems to be little evidence about how hard BP tried to meet that goal.

The committee's investigation of the Deepwater Horizon disaster identified five key decisions—we have talked about it over and over again in this hearing—made by BP officials in the days before the explosion. Those decisions had two common denominators: They saved time and cut costs, and they each increased risk.

Now, I have heard you say over and over again in the course of today's hearings that there is nothing that I have seen in evidence so far that BP put costs ahead of safety. And I have to tell you how detached that seems. Because we have also talked about some of the documents that the committee has unearthed, and document after document that indicated that BP officials in charge of the Deepwater Horizon were focused on saving time and money—for example, the document that says that the well design was chosen because it would save $7 million to $10 million.

You are familiar with that document, correct?

Mr. HAYWARD. I am familiar with that document.

Ms. SUTTON. OK. And another one says that the reason for not using sufficient centralizers is because it would take 10 hours to install them. You are familiar with that document?

Mr. HAYWARD. Yes, I am familiar with that document.

Ms. SUTTON. OK. And you indicated that you weren't familiar with any of this happening before the explosion; you only learned about it afterwards, right, as the CEO of this company?

Mr. HAYWARD. I wasn't familiar with any of the decisions or any of the documents surrounding this well prior or during the drilling of the well.

Ms. SUTTON. OK. And what is fascinating also is that, when you were asked about how these decisions are made within the structure of your organization, you referenced this from a perspective of,

"As I understand it from our investigation, this is how these decisions are made." But you are the leader of the company. You couldn't even tell us if they were top-down or bottom-up decisions. You were just referencing them based on an after-the-fact investigation.

So when we talk about these documents, the documents I just referenced—the one that says the well design was chosen because it would save $7 million to $10 million and the other one that says that the reason for not using sufficient centralizers is because it would take 10 hours to install them—none of these documents makes a decision to ensure a safe environment on the rig or protect the environment from a catastrophic oil spill.

Would you say that that is true, that that doesn't indicate a decision being made based on ensuring a safe environment or protecting the environment?

Mr. HAYWARD. I don't think it is possible to say that, based on the documents, out of context.

Ms. SUTTON. And, see, that is why I think there is a real detachment here, a real disconnect, as we have heard that word used earlier today. It seems to me there was a disconnect prior to the explosion, and there remains a disconnect when viewing evidence that is very clear and being presented.

This was a tragic failure. You have talked about your commitment to safety and the environment, but when push came to shove on the Deepwater Horizon, the company's concern seemed to be the bottom line.

And I guess this is my question to you, Mr. Hayward: Who was responsible for the failures on the Deepwater Horizon and the terrible set of decisions that led to the tragedy in the gulf?

Mr. HAYWARD. That is what our investigation will determine, and that is what it is going to do. And if there is, at any point, evidence to suggest that people put costs ahead of safety, then I will take action.

Ms. SUTTON. So, evidence like those documents?

Mr. HAYWARD. The evidence from the totality of the investigation.

Ms. SUTTON. OK.

Mr. Hayward, as the leader of the company, don't you have to accept the responsibility?

You talked about the importance of safety and the environment, but you presided over a corporate culture where safety and risks and risks to the environment were ignored in order to save a few days and a few dollars in drilling costs.

If you are the leader of the company, don't you have to take responsibility?

Mr. HAYWARD. I am absolutely responsible for the safety and reliable operations in BP. That is what I have said all along.

Ms. SUTTON. Thank you, Mr. Chairman. I yield back.

Mr. STUPAK. Thank you, Ms. Sutton.

Mr. Welch for questions, please.

Mr. WELCH. Thank you, Mr. Chairman.

Mr. Hayward, is it true that, in 2005, the Texas City operation owned by BP blew up, resulting in the loss of lives of 15 workers?

Mr. HAYWARD. That is true.

Mr. WELCH. And is it true that, in 2006, a BP oil pipeline in Alaska ruptured and spilled 200,000 gallons of crude oil?

Mr. HAYWARD. That is true.

Mr. WELCH. And is it true that, in 2007, when you took over as CEO of BP, the corporation settled a series of criminal, not civil, criminal charges and agreed to pay $370 million in fines?

Mr. HAYWARD. That is correct.

Mr. WELCH. And is it also true that, in 1 year, the Occupational Safety and Health Administration, OSHA, found more than 700 violations at BP's Texas City refinery and fined BP what was then a record fine of $87.4 million? Is that true?

Mr. HAYWARD. That is correct.

Mr. WELCH. And is it true that, earlier this year, a BP refinery in Toledo, Ohio, was fined $3 million for willful—and I emphasize the term in the finding, "willful"—safety violations, including the use of valves similar to those that contributed to the Texas City blast?

Mr. HAYWARD. That is correct.

Mr. WELCH. And is it true, as well, that the U.S. Chemical Safety Board, which did investigation into the Texas City refinery, was headed, with the active participation of former Secretary of State James Baker—are you familiar with that report?

Mr. HAYWARD. I am very familiar with that report.

Mr. WELCH. And in that report—which you, I take it, regard as credible?

Mr. HAYWARD. I believe it is very credible, and it is the basis on which we moved forward in 2007.

Mr. WELCH. And that report, and I quote, found that "BP management allowed operators and supervisors to alter, to edit, to add, and to remove procedural steps at the Texas City refinery without assessing risk."

And the Baker panel examined all of BP's U.S. refineries and found "a toleration of serious deviations from safe operating practices."

Is that an accurate statement of the findings of Mr. Baker's report?

Mr. HAYWARD. It is an accurate finding. And based on the findings of that report and the instances of 2005 and 2006——

Mr. WELCH. And in the case——

Mr. HAYWARD. —we implemented a systematic change in how we manage safety and a systematic change in the culture of BP.

Mr. WELCH. Well, let me ask you——

Mr. HAYWARD. That is something we have done consistently over the last 3 years.

Mr. WELCH. Well, did that systematic change that you say you implemented as a result of the Baker report account for the reason that, at Deepwater Horizon, when faced with the choice of a cheaper and quicker casing design or a safer design, BP chose the cheaper and quicker casing design? Did you do that on the basis of the recommendations of the Baker report?

Mr. HAYWARD. As I have said, we need to wait for the results of the investigation to conclude. If there is any evidence whatsoever that people put costs ahead of safety in this incident, then we will take action.

Mr. WELCH. Well, I am not going to ask you what their reason was. What I am going to ask you—and, in fact, it is not in dispute, that the choice was made to use a cheaper and quicker casing design rather than a more expensive design.

And I will ask you again: There were fewer casing centralizers than some folks were recommending. Is that—I will leave out motivation, but there was a choice of more casing centralizers or fewer casing centralizers. More cost more; fewer cost less. Which choice did BP make at Deepwater Horizon?

Mr. HAYWARD. The decision taken by the engineering team at the time, which was a technical judgment, was to use fewer centralizers rather than more. It is not always true that more is better.

Mr. WELCH. And BP chose at Deepwater Horizon not to circulate drilling mud that would have cleaned out the well. It chose a lighter saltwater base for the cementing procedure. Is that correct?

Mr. HAYWARD. The procedure to displace the mud was a procedure that is not uncommon in the industry. It was a procedure that was approved by the MMS prior to implementing it.

Mr. WELCH. Are you saying you made the right choice in this case?

Mr. HAYWARD. I am not able to make a judgment as to whether the right choices were made.

Mr. WELCH. Well, you are the CEO.

Mr. HAYWARD. But I am not, with respect, Congressman, a drilling engineer or a technically qualified engineer in these matters.

Mr. WELCH. But you are in charge of them.

Mr. HAYWARD. That doesn't mean to say I am an expert.

Mr. WELCH. Well, I mean, you know, one of the frustrations that I think folks have is, who is in charge? And there was a Baker report that said there was a systematic choice being made consistently by BP that led to the loss of life, that led to pollution, that could be attributed to a decision based on saving money, increasing profits, at the expense of safety and, as it turns out, unfortunately, human lives.

You know, I am going to get back to what I asked you earlier. I think all of us live in a world where we would prefer to have fewer regulations rather than more. We would like to rely on trust and faith and our word, rather than regulations and checking over your shoulder and all those things that I think both sides find annoying.

But I am going to ask you the question: Does a CEO who has presided over a company that has incurred over $370 million in fines, whose company was subject to this report by Mr. Baker, indicating a choice at the expense of safety, does that person who has presided over almost $100 billion in loss of shareholder value, in the suspension of a $10 billion annual dividend, who has lost the confidence of shareholders and regulators and, most importantly, the families and citizens of the gulf, does that person enjoy the confidence necessary to continue acting as CEO? Or is it time for that CEO to resign?

Mr. HAYWARD. I am focused on the response. I am focused on trying to eliminate the leak, trying to contain the oil on the surface

and defend the beaches and to clean up the spill and to restore the lives of the people on the gulf coast. That is what I intend to do.

Mr. WELCH. OK. I yield back, Mr. Chairman.

Mr. STUPAK. That concludes questions by members of the subcommittee. As I indicated earlier, members of the full committee will have an opportunity to ask questions if they so choose. So we will alternate, and, as I indicated earlier, it will be based upon committee seniority.

So, Mr. Stearns, you would be next, first on the Republican side, for questions for 5 minutes, please.

Mr. STEARNS. Thank you, Mr. Stupak, and thank you for allowing me to ask these questions.

Mr. Hayward, I have watched this hearing, and time and time again you have indicated this—you have responded with this statement: "I can't give you a legitimate answer to that question." You have said it over and over again. They have asked you for details; you didn't know.

Did you bring anybody with you who has the detailed information that could help you answer a lot of these questions? Is there anybody else who can help?

Mr. HAYWARD. I have a technical expert with me.

Mr. STEARNS. Because I don't see you go back to that technical expert, and you just continue to say, "I just can't answer that question."

So my question for you today: Is today Thursday, yes or no?

Mr. HAYWARD. It is Thursday.

Mr. STEARNS. OK.

Next question. The people of Florida, when I talk to them and they say there is oil spilling on the coast, would it be appropriate to say that is because of BP's reckless behavior, yes or no?

Mr. HAYWARD. It is a consequence of a big accident.

Mr. STEARNS. No, yes or no? Reckless behavior or not?

Mr. HAYWARD. There is no evidence of reckless behavior.

Mr. STEARNS. So you are standing here, you are saying here today that BP had no reckless behavior. That is your position, yes?

Mr. HAYWARD. There is no evidence of reckless behavior.

Mr. STEARNS. No. Yes or no? You are saying BP has had no reckless behavior, is what you are saying to us.

Mr. HAYWARD. I have seen no evidence of reckless behavior.

Mr. STEARNS. OK. So you are on record saying there has been no reckless behavior.

We had a hearing. Mr. McKay was here. We had the CEOs of Exxon, Chevron, ConocoPhillips, and Shell. We asked them the question, knowing what we know today about the inconsistent well pressure test readings, would you have proceeded with withdrawing the drilling fluid from the well? Every one of them said no.

Then the next question was asked to them about safety measures. Are there safety measures that your company could have taken to prevent this incident? Every one of them said yes.

So you are here this morning saying your company had no reckless behavior, yet all your peers, the CEOs of Exxon, Chevron, ConocoPhillips, and Shell, all pointed out your reckless behavior.

Later on, Halliburton warned your company that the well could have a severe gas flow problem. Were you aware of Halliburton's warning, yes or no?

Mr. HAYWARD. I was not involved in any of the decisions around this time.

Mr. STEARNS. No, I don't want to hear that. I mean, this is the same thing you have been saying all day. What I want to know is, you, in your position—has anyone on your staff briefed you about Halliburton warning your company, we could have a severe gas flow problem? Were you ever notified or briefed on this? Yes or no?

Mr. HAYWARD. No, prior to the incident.

Mr. STEARNS. So you are up at this top echelon and you didn't hear—did you hear about the e-mails that occurred?

Later that day, a BP official involved in the decision, who recognized the risks of proceeding with insufficient centralizers, threw caution to the wind in an e-mail just 4 days—4 days—before the disaster, stating, "Who cares, it's done, end of story, will probably be fine." Did you know about that e-mail?

Mr. HAYWARD. I had no prior knowledge of this well prior to the incident whatsoever.

Mr. STEARNS. In light of what your four peers have said, dealing with safety, dealing with the precautions with the pressure test reading, and dealing with Halliburton, don't you think there is reckless behavior indication? If what I told you is true, do you think BP has reckless behavior?

Mr. HAYWARD. I believe all accidents are preventable. The investigation will determine how this accident has occurred——

Mr. STEARNS. OK. So you are saying, right now, based upon all the information I gave you, you do not think BP had any reckless behavior. That is your position this afternoon. Is that correct, yes or no?

Mr. HAYWARD. That is—I have seen no——

Mr. STEARNS. I want you to say that you don't think BP has reckless behavior.

Mr. HAYWARD. I have seen no evidence of reckless behavior.

Mr. STEARNS. OK. All right.

Now, let's say you were on a ship and you ran into New Orleans and you spewed all this oil and you killed 11 people. Do you think the captain of that ship should be fired?

Has anyone in BP been fired because of this incident? Anybody? Yes or no?

Mr. HAYWARD. No, so far.

Mr. STEARNS. No people have been fired.

So, you are captain of the ship, runs into New Orleans, spews all this oil. There is all this damage from Alabama to Mississippi, Florida, Louisiana. And no one has been fired?

Mr. HAYWARD. Our investigation is ongoing.

Mr. STEARNS. So let's say the investigation goes for 3 years. Does that mean you wouldn't fire anybody?

Mr. HAYWARD. As the investigation draws conclusions, we will take the necessary action.

Mr. STEARNS. OK. So, in light of all the environmental damage, the human damage, and just the information from your peers saying that you were indeed reckless, and these e-mails I have told

you, you still are going to stonewall us this morning, this afternoon. And you are saying basically, we did nothing wrong and we are going to wait until the evidence to prove whether we did wrong or right; is that correct?

Mr. HAYWARD. I believe we should await for the conclusions of the various investigations before we make decisions based on those conclusions.

Mr. STEARNS. Well, Mr. Chairman, he did answer that today is Thursday.

Mr. BRALEY [presiding]. The chair now recognizes the gentleman from New York, Mr. Engel, for 5 minutes.

Mr. ENGEL. Thank you very much, Mr. Chairman.

Mr. Hayward, I am going to attempt to ask some of the questions that my other colleagues have asked but really haven't been answered.

Now, on Tuesday, we had the leaders of ExxonMobil, Chevron, Shell, and ConocoPhillips. They all insisted at the hearing on Tuesday that they would not have made the mistakes that led to the well explosion.

Are they lying to us, or are you lying to us by telling us that you don't know who is responsible and don't know whether or not BP did something wrong? They are all saying BP did something wrong.

Mr. HAYWARD. I believe we need to await the results of the multiple investigations before we draw conclusions.

Mr. ENGEL. Well, it is——

Mr. HAYWARD. I want to get to the bottom of this more than anyone. I want to learn the lessons, and I want to ensure that we can learn the lessons and that the industry can learn the lessons.

Mr. ENGEL. Well, I don't understand. It is 61 days, it is 2 months. I mean, what kind of an investigation are you going to conduct? Why, in 2 months, with all this oil spilling into the gulf, do we not have at least a preliminary investigation?

Mr. HAYWARD. We are conducting a full and comprehensive investigation. It involves a team of more than 50 people. We have shared the results of that investigation, as they become available, with this committee. And we will continue to do that.

Mr. ENGEL. Well, Mr. Hayward, perhaps your lawyers have told you to be really cautious, but it is really an insult for you to come to this committee and keep repeating the same thing, evade questions, evade answers, and just repeat again and again that you were not responsible and that we have to wait for an investigation.

Why didn't you come testify to this committee after the investigation if you are not prepared to tell us anything of knowledge now?

Mr. HAYWARD. With respect, Congressman, I wasn't party to any of the decisionmaking around this well in the time it was being drilled. And, therefore, I am not in a position to make a judgment about whether the decisions taken were the right ones or the wrong ones.

Mr. ENGEL. Well, but we have all made a judgment because it is 60 days and oil is spilling into the gulf. So, obviously, decisions were made that were wrong.

Can't you just admit that? Can't you just say, "I am sorry"? Can't you just admit that decisions were made that were wrong, instead

of sitting there and telling us you don't know and you have to wait for an investigation?

Mr. HAYWARD. I am very, very sorry that this accident occurred, very sorry. I deeply regret it. I deeply regret it for very many reasons. And I do believe that it is right to investigate it fully and draw the right conclusions.

Mr. ENGEL. What needs to be investigated? What needs to be investigated that has not been investigated up till now? And how long will it take you?

Mr. HAYWARD. I can't answer how long it will take because we want to make certain it is complete. But there are clearly——

Mr. ENGEL. Well——

Mr. HAYWARD [continuing]. Many investigations—excuse me, sorry. There are many investigations ongoing. There is our investigation, there is a Marine Board investigation, and a Presidential commission. And they will undoubtedly draw important conclusions for all of them.

Mr. ENGEL. But you are the CEO. Shouldn't you not set the tone for the investigation? Shouldn't you not say, "I demand that within a month we are going to know what happened"?

I mean, you are really insulting our intelligence, with all due respect, by not giving us any answers and telling us that you have to wait for some investigation. I think the rest of the world isn't blind. We know what has happened, and we know that BP obviously didn't do what it was supposed to do. Only you don't know that.

Mr. HAYWARD. I believe I have set the right tone. We launched the investigation within 24 hours. We have made it open and transparent. And we are sharing with everyone the results as they come out.

Mr. ENGEL. Well, let me ask you this: How many other wells has BP in the gulf?

Mr. HAYWARD. I don't know the precise number, but it is a large number.

Mr. ENGEL. Give me a ballpark figure.

Mr. HAYWARD. In the area of hundreds.

Mr. ENGEL. OK. How can we be assured that the same thing won't happen with one of the other wells? How can you give us assurances that what happened with this well won't happen again to several hundred wells?

Mr. HAYWARD. The other wells that I am referring to have all been drilled and completed and are secure.

Mr. ENGEL. So you are saying, then, all the other wells that BP has, that something that happened to this well could never happen again in any of those other wells?

Mr. HAYWARD. All of the other wells that I am referring to are wells that have been completed and are secure.

Mr. ENGEL. So is that the same assurance that you had said that you were going to, with a laser, make safety a priority? Is this the same kind of assurance that you are giving us now?

Mr. HAYWARD. I have, throughout my tenure, been very explicit about the priority of safety in BP. It is the first word I utter every time I talk to any group of people in BP, the fact that safe and reliable operations is our number-one priority.

And we have made very significant changes to our processes, to our people, and invested very significantly into the integrity of our plants and equipment over the last 3 or 4 years.

Mr. ENGEL. Mr. Hayward, let me just say with all due respect, I, like everyone else here and everyone else in America, is thoroughly disgusted. I think you're stalling. I think you're insulting our intelligence. And I really resent it.

Mr. Chairman, I yield back.

Mr. STUPAK [presiding]. A member of the full committee Mr. Scalise for questions, please. Five minutes.

Mr. SCALISE. Thank you, Mr. Chairman. I appreciate you letting me participate in this.

Mr. Hayward, this is a picture of an oiled pelican. This is our State bird in Louisiana. I'm going to keep this on my desk as long as we are battling this as a constant reminder of what is at stake. But I want you to keep this in your mind as well to recognize that we are not just talking about the loss of life, which is tragic, we are not just talking about the oil that is still spewing out of that well. We are talking about our way of life not just in Louisiana, but all along the Gulf Coast that is at stake. I would hope you keep this image in your mind as a constant reminder of what is at stake and what we are battling on a daily basis.

Our two priorities right now are, number one, doing everything we can to make sure you all cap this well, but also to battle as strongly as we can to keep the oil out of our marsh and our ecosystem. We don't want to sit back and wait until the oil comes in and does possibly irreparable damage. We want to be proactive. But we are having problems on the ground being proactive because of the delays.

I still hear—I was on Grand Isle Friday. I hear the biggest complaints from our local officials that they are spending more of their time fighting BP and the Federal Government than they are fighting the oil. This is unacceptable. And I know you talk about all the things that you all are doing, but it is not enough. We need a more urgent sense of response to this disaster. And I want to ask you what you are going to do to help speed that up.

When our local officials tell us when they have basic questions they need answers to, it takes at least 5 days. They first go to the Coast Guard, then they are sent to BP to get approval, and then they go around in circles and they are told they are going to get answers, and they never get those answers. This is just not an acceptable way to run this operation. And so when we hear who is in charge—I want to ask you, who is in charge on the ground?

Mr. HAYWARD. The National Incident Commander is the person in charge of this operation.

Mr. SCALISE. So is the Federal Government telling you what to do? Are you telling the Incident Commander what to do? When our local officials say we need something approved, do they need to get the Incident Commander and your approval? Because they are getting runaround in circles right now.

Mr. HAYWARD. We are trying, sir. We are not being perfect, I acknowledge. We are trying very hard to do better. We are operating under the direction of the Federal Government.

Mr. SCALISE. Let me give you an example. When our Government came with an idea—and this was over a month ago now. He had an idea, Governor Jindal working with the local leaders, to have this sand barrier plan. They laid it out. They actually made some changes. They worked with scientists and with engineers. And then over 3 weeks went by before any approval.

Now, we contacted—our entire delegation signed a letter; we tried to get the President engaged in breaking this logjam. Still to this day, only 25 percent of that plan has been approved. Now, is that you that is not approving the other 75 percent? Is that the Federal Government that is not approving it? Who is not approving the other 75 percent? Because it is not approved to this day.

Mr. HAYWARD. The approval process flows through——

Mr. SCALISE. Is it you or the Federal Government?

Mr. HAYWARD. The ultimate approval——

Mr. SCALISE. Can you tell them no?

Mr. HAYWARD. The ultimate approval process is with the Government.

Mr. SCALISE. So the Federal Government is the one who hasn't approved the other 75 percent?

Mr. HAYWARD. I can't speak to the details of the other 75 percent.

Mr. SCALISE. You don't know about it? We brought this to them. I know they submitted it. Our Governor submitted this to you and the Incident Commander.

Mr. HAYWARD. As you know, we have committed $360 million to build a large part of the barrier island as——

Mr. SCALISE. It is not a large part. It is 25 percent of the plan. That may seem like a large part to you.

Let me go to another question that we get asked. They don't have any kind of approval of creation of a seafood safety plan. Now, is that something that was submitted to you all? Is that the Federal Government that is not approving it? Is it BP that is not approving it? Because again, our local leaders, they are getting run around in a circle, and nobody is held accountable when things don't happen.

What I'm going to present to you is that we don't have time for these games to continue to play. We can't have 5 days go by before an answer is given to anybody because the oil is coming every day.

And I will just give you an example about the sand barrier plan. Now, you say you all have approved a lot of it. There is no plan of protection along any part of Grand Isle, and there is an area call Barataria Bay. And I would suggest you go look it up. About a week and a half ago there was no oil in Barataria Bay. That section was scheduled to be covered by the barrier plan that still to this day hasn't been approved. Now, today there is oil, thick oil, coming into the Barataria Bay. So you're not showing the sense of urgency. And whether it is you or the Federal Government, we have got oil in Barataria Bay when we had a plan a month ago to keep the oil out of Barataria Bay.

So when people are hearing that everything is being done, I'm going to tell you, on the ground it is not getting done. And I don't know what you need to do differently, but you need to go do something differently. And if it is not you that is blocking it, you need

to tell somebody who is blocking it, because it is being blocked. And it is not getting done on the ground, and we don't have the luxury of time.

This shouldn't be happening. We put plans in place to stop this from happening, and our plans are not being approved. Now, I would love it if our plans were being rejected because there were better alternatives that were being offered by somebody, that were being approved, but there are no other alternatives. All we are being told is no without any other option being presented. And what we are saying is if you have got a better option, present it. Otherwise approve our plan. But we don't have time to waste. Do you understand that?

Mr. HAYWARD. I understand your concern and your anger.

Mr. SCALISE. And I hope you make the changes that are needed, because we don't have time.

This is something else. We continue to get—and my office gets flooded, I know a lot of others get flooded, with ideas of how to stop the oil from coming into the marsh, how to cap the well and other things. We have seen basic ideas like putting hay in the water, all the way up to the supertankers in Saudi Arabia. None of them are getting done on the ground.

I'm going to give you this database. This is a database of ideas with links, with schematics of a number of different ideas that should be done that can stop the oil from coming into our marsh. But it is not getting done.

We don't have time to waste. So I'm going to ask you to move swiftly on this, and I am going to give you a resolution passed by our Senate that asks that you engage our local people who have been affected by this. A lot of them aren't even being able to be employed in saving the marsh. They want that done. And also to speed up the efforts on some of these alternatives that are going nowhere. We have got a lot of ocean out there that has got oil.

Mr. STUPAK. Time——

Mr. SCALISE. We want you to use every opportunity to fix that. So I'm going to give this to you.

Thank you, Mr. Chairman. I yield back.

Mr. STUPAK. Mrs. Capps for questions, please.

Mrs. CAPPS. Thank you, Mr. Chairman.

Mr. Hayward, your $20 billion of compensation fund is a good first step, but it is just the beginning. You're going to have to fully compensate everyone who has been affected by this disaster. This week BP announced the first installment of a $25 million fund within a broader $500 million commitment to the Gulf of Mexico Research Initiative. Is BP still committed to putting the full 500 million, not just the 25- installment, but the full 500 million, towards this initiative?

Mr. HAYWARD. We are. It is an initiative that will take place, we believe, over 10 years.

Mrs. CAPPS. When will we see the details of this entire program?

Mr. HAYWARD. It's being worked by the experts currently. We think it is important to have a program that has firm scientific foundation.

Mrs. CAPPS. Are these your experts, sir?

Mr. HAYWARD. No, these are not our experts. These are independent scientists from across the United States from some of the——

Mrs. CAPPS. I would request that you would submit to the committee the list of experts that you have that are developing this program. I would appreciate that.

Mr. HAYWARD. We would be very happy to do that.

Mrs. CAPPS. Will there be further scientific investments you will make available to the research community, significant further investments of dollars?

Mr. HAYWARD. Well, we have set up a $500 million initial fund, and I think we need to see what the scientists determine.

Mrs. CAPPS. I just mention this because your commitment pales in comparison to the $1 billion Exxon spent on the Valdez spill 20 years ago, which was in quite a bit more remote location, and fewer people apparently were impacted by that one.

So you are going to make all the data from this research available to the public?

Mr. HAYWARD. It would be fully open and transparent. It won't be BP's data, it will be the data of the scientists involved.

Mrs. CAPPS. All right. With their names attached?

Mr. HAYWARD. Absolutely.

Mrs. CAPPS. I want to switch topics now. The Federal Government has developed training classes to provide the necessary training for workers and volunteers who are cleaning up the oil from your spill, but we continue to see reports that BP is not following the training guidelines, endangering further the health of these workers now and long into the future. Why are we still hearing these kinds of reports from the people who are out on the water and on the shoreline?

Mr. HAYWARD. We are doing everything we can to train everyone involved in this as well and as clearly and as properly as we can.

Mrs. CAPPS. Are you using the Federal-developed courses?

Mr. HAYWARD. We are using OSHA guidelines to establish what is the appropriate training.

Mrs. CAPPS. Finally, I want to ask you about BP's response plan, which was clearly inadequate. This committee learned this week that the other major oil companies rely on the same response plans that are practically identical to your own. The same contractors seem to have written your plan and their plans. They hired the same contractors, apparently, as you did. And you all appear to have the same technical experts and the very same response commitment.

Now, if this bill had happened to a different oil company, do you have any reason to think that they would have responded more effectively than BP has?

Mr. HAYWARD. I can't really comment on that. All I can say is that we have initiated the biggest spill response in the history not only of America, but of the world. It involves thousands of vessels, 35,000 people. It is the largest activity of its kind ever conducted.

Mrs. CAPPS. I appreciate that. The Federal Government has—this country has also initiated the largest response that we have ever initiated on behalf of any kind of a natural disaster or man-made disaster in the history of this country as well.

But finally, back to my original question on that topic. Rex Tillerson, the CEO of ExxonMobil, was asked the same question that I just asked you. He said that Exxon, his own company, is not prepared to deal with a large spill if it happens to them. He also said that the response capability to prevent the impacts of a spill doesn't exist. Now, bear in mind, this is the same response—training manual—response manual that your company has. With respect to his own, he says the impacts of a spill, the capability does not exist and probably never will.

My question to you, do you agree with Mr. Tillerson about this?

Mr. HAYWARD. I agree that there are many missings in our ability to respond to an incident of this type, and there will be many learnings to be had from this incident and how we can build better response capability in the future. And as I said, we are doing an extraordinary spill response, and I regret that it hasn't been more successful so far than any of us want.

Mrs. CAPPS. I yield back, Mr. Chairman.

Mr. STUPAK. Thank you, Ms. Capps.

Mr. Gonzalez for questions, please.

Mr. GONZALEZ. Thank you very much, Mr. Chairman.

Mr. Hayward, let me ask you, there is a 6-month moratorium on deepwater drilling. Do you think that is reasonable under the circumstances?

Mr. HAYWARD. I think it is important that the lessons from this are learned, and that clearly that is a decision for the authorities to take, not for me. But it is clearly important.

Mr. GONZALEZ. I'm not asking you to make the decision. I'm just asking your opinion. Based on your expertise and your position, I would assume you would have an opinion on whether that is a prudent thing to be doing.

Mr. HAYWARD. I believe it is prudent for the industry to take stock of what has happened here before it moves forward.

Mr. GONZALEZ. Well, you know, there are calls to move expeditiously to lift that ban after accomplishing whatever is supposed to be accomplished in order to give people peace of mind that as we drill, we are not going to have recurrence.

When do you think would be appropriate to consider lifting the moratorium?

Mr. HAYWARD. I don't think I can make a judgment on that today. I think that is something——

Mr. GONZALEZ. What would common sense tell you?

Mr. HAYWARD. I think it is understood clearly what happened and understood clearly what better response is required in the event that something like this ever happened again.

Mr. GONZALEZ. I'm hoping everybody is going to be on that same page. It is fundamentally sound.

Now, we have had other Members that made reference to the hearing we had a couple of days ago, and I'm sure you have already spoken to Mr. McKay and such. But Shell, Exxon, Chevron, ConocoPhillips, they all said—I will tell you this, though. When I asked them if they could give me 100 percent assurance that nothing like this would happen when they are drilling in deep water, they wouldn't give me—what they would say is, we do it safely, we do it safely. Human experience is that there are no 100 percent as-

surances about any activity. And all I was trying to get is that let us be honest with the American people that there is risk, there is risk, there is risk. And it is a calculated risk. And if we can provide enough assurances that it is a risk worth taking, then we will be out there, won't we?

Well, they wouldn't do that, believe it or not. And I'm hoping you won't play that same game. What they did say was it never would have happened, because their manner and fashion of drilling is different than what you were doing. And I don't want to start a big war on you guys, but do you really believe that the way they explore and drill in deep water is substantially different than what you were doing out there?

Mr. HAYWARD. Not to my knowledge.

Mr. GONZALEZ. I tend to agree with you.

So let's talk about planning. And I think Ms. Capps pointed out something that is really important as far as Exxon. What he actually said was, we couldn't deal with it if something like that happened, which is an incredible statement to make, isn't it, the fact that you're willing to expose that kind of risk? And if the worst-case scenario did develop, you wouldn't know what to do.

So let's go back to 2003. The Society of Petroleum Engineers and the International Association of Drilling Contractors reported, quote, "no blowout has yet occurred in ultra deep water, water depths of 5,000 feet or greater. But statistics show it is likely to happen. Are we ready to handle it?" Well, we know the answer is no. But at that time they said it was likely to happen.

Have you ever read anything like that in all these years, that it was likely to happen?

Mr. HAYWARD. I haven't read that answer, I'm afraid.

Mr. GONZALEZ. Did you believe that it was likely to happen?

Mr. HAYWARD. I did not believe it was likely to happen. It was a risk that was identified as the highest risk by BP across the corporation. It was a risk that was identified as the highest risk by our exploration and production unit. And we believed that the risk mitigant was the so-called failsafe mechanism of the blowout preventer.

Mr. GONZALEZ. This blowout preventer, it is the ultimate failsafe. And I know that you keep using that term, and it comes back somewhat to haunt you. But I'm curious about blowout preventers and the difference—and I was noticing my staff, as they were getting some information, if you have a surface well, you have a 10,000-pound-per-square-inch blowout preventer. Shallow water, 10,000 pounds per square inch; deep water, 15,000 pounds per square inch. Now, I'm not an expert. Why? What is the difference as you go into depth? Why a greater capacity?

Mr. HAYWARD. Because of the pressure of the reservoirs that we are drilling.

Mr. GONZALEZ. Which then leads me to—what do you think you're dealing with at that depth as far as pounds per square inch?

Mr. HAYWARD. We know that we are dealing with a reservoir with a pressure of around 11—between 11 and 12,000 pounds per square inch. And we have a blowout preventer rated to 15,000 pounds per square inch. I believe that's correct.

Mr. GONZALEZ. I don't know this. Cameron—I don't know that it is Cameron that builds these blowout preventers. That is a company that someone told me that is—and they are working on a 20,000-pound-per-square-inch preventer. I mean, you're aware of that?

Mr. HAYWARD. I am, yes.

Mr. GONZALEZ. And they actually said this: While there is much discussion and an ongoing effort to provide guidance for equipment greater than 15,000 pounds per square inch, in the interest of expediency, it was decided within Cameron to apply current design codes and practices. The 20,000-pound-per-square-inch EVO blowout preventer was design-tested and qualified to API—and I'm not sure what all that means—16A 3rd edition, meaning basically, but for the sake of expediency does concern me.

Why were you all looking at 20,000 pounds per square inch when you believe what you already have at 15,000 exceeds what really is required?

Mr. HAYWARD. I think that—I'm not certain, but I think that is referring to blowout preventers for reservoirs with even greater pressure.

I do believe that one of the most important things to come from this incident is the requirement for the industry to step back and redesign the failsafe mechanism it uses to prevent accidents of this sort. We need a fundamental redesign of the blowout preventer. It is something that BP is going to take a very active role in. We have already begun that process with a number of academic institutions and a number of contractors in the industry.

Mr. GONZALEZ. And I thank the chairman for his patience.

Mr. Hayward, we usually say better late than never, but not this time.

I yield back.

Mr. STUPAK. Mr. Gonzalez.

Before Mr. Inslee, we should for the record—recordkeeping, Mr. Scalise had submitted a CD and a resolution here from the State senate. He will provide copies for the record. So with unanimous consent they will be made part of his questioning and made part of the record within 10 days. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. STUPAK. Mr. Inslee, questions, please.

Mr. INSLEE. Thank you.

Mr. Hayward, something you said earlier was really quite astounding to me. You said that there was no evidence to date that there had been any decision made based on costs, that no decisions had been made in an effort to reduce costs. And I want to go through this because there is something that I think is quite pivotal in this investigation.

The facts are clear that you hired Halliburton to give you advice about this. Mr. Gagliano, an expert in the field, did an analysis and concluded you needed 21 centralizers to make sure that this rig was safe. And just to remove any doubt as to why that is important, the American Petroleum Institute recommended practice—65 says, quote, if casing is not centralized, it may lay near or against the bore hole wall. It is difficult, if not impossible, to displace mud effectively from the narrow side of the annulus if casing is poorly

centralized. This results in bypassed mud channels and inability to achieve zonal isolation, closed quote.

So the experts said you need 21. Then if we can put up the first slide, a BP employee essentially wrote to that expert and said, we have only got six, and we don't have time to deal with this problem. Time to British petroleum was money. This rig was 45 days late. It cost you $500,000 a day. And people's obvious attention were about time, which meant money.

So what happened then? Well, another British Petroleum person sent a memo saying, you really need to follow the model here. He kicked it up to Mr. Guide.

If we could have the second slide.

Mr. Guide came back and said, I don't like the fact this is going to take 10 hours to do, even though another British Petroleum person had said we are going to fly 15 things in, they can be here tomorrow morning. Mr. Guide said, I don't like the 10 hours. And it didn't happen. And then the next response from British Petroleum—next slide, please—was an e-mail from Mr. Cocales sort of reprimanding another BP person, saying, even if the hole is perfectly straight, a straight piece of pipe even in tension will not seek the perfect center of the hole unless it has something to centralize it, meaning you have got to have the right centralizers. But he went on to say this: But who cares? It is done, end of story, we will probably be fine, and we will get a good cement job.

What happened then—that is not quite the end of the story. Mr. Gagliano then ran further computer models, and he concluded—the last slide, please—he concluded—and this is hard to read, but I will read it. He concluded that this well is considered to have a severe—and severe is all capitalized in his memo—gas-flow problem.

Now, it is very clear to me, reading this clear evidence, that, in fact, decisions were made because of costs, because people didn't want to wait to get the centralizers that was needed to safely do this job. So your statement that there is no evidence that costs led to shortcuts just doesn't ring true with me.

Isn't it pretty clear that there were cost decisions made that had suboptimal at best number of centralizers in placement in this well?

Mr. HAYWARD. I don't want to be evasive, but I genuinely believe that until we have understood all of the things that contributed to this accident, it is not easy to say what I would say. If there is evidence that costs were put ahead of safety, I would be both deeply disturbed, and we would take action.

Mr. INSLEE. Sir, let me ask you about that action. We just read these e-mails. Everybody in this room knows what happened, reading these e-mails. You know what happened in reading these e-mails. Are you going to call the employees involved when you leave this meeting and say—because you're drilling in places all over the world right now; this is an ongoing operation—and tell them they have to change their attitude? Are you going to take action based on these e-mails today?

Mr. HAYWARD. We will take action based on our investigation which puts all of this together, and as—as it unveils clear conclusions, we will take action on them.

Mr. INSLEE. Let me suggest another action. We asked British Petroleum what it spent on research and development regarding safer offshore drilling technologies. You gave us the number. It was about $10 million a year. That represents 0.0033 percent, 0.0033 percent of British Petroleum revenues. That doesn't sound like an adequate prioritization. How does it compare to your compensation?

Mr. HAYWARD. In what respect?

Mr. INSLEE. British Petroleum is investing about $10 million a year in safer drilling technology. How does that $10 million a year compare to you compensation last year?

Mr. HAYWARD. My compensation last year was $6 million.

Mr. INSLEE. Forbes reports it at 33-. There must be some misunderstanding then. Is that appropriate? Stock options don't count?

Mr. HAYWARD. My compensation last year was—is—I think it was recorded at $6 million.

Mr. INSLEE. Do you think British Petroleum ought to make a larger investment of its significant gross revenues in developing safer drilling technology? And do you think you owe that to the American people at this point?

Mr. HAYWARD. The answer is yes, and we undoubtedly will do that on the back of this accident.

Mr. INSLEE. We hope that that will be expeditious and successful. Thank you.

Mr. STUPAK. Thank you, Mr. Inslee.

Mr. Melancon for questions, please.

Mr. MELANCON. Thank you, Mr. Chairman, I appreciate it.

Mr. Hayward, how many deepwater operations do you have at BP around the world that you're operating?

Mr. HAYWARD. I don't know the precise number, but it is probably in the order of 15 or so.

Mr. MELANCON. Is there—one of the things I have run into, and Mr. Scalise alluded to it, we have had in my office over 600 requests for submissions for products, ideas, concepts, ways to cap the wells, et cetera, et cetera. Basically—and, of course, because of ethics, we can't and won't go in and make anybody meet with anybody. So we just refer them into them. The best I can tell is that maybe 3 out of the 600-plus have received an e-mail back, thank you for your submission, or, no thank you, if anything else.

There seems to be a closed loop of vendors that you're dealing with, which my frustration is that the hole is still wide open. And when this accident first occurred, everyone said, we are going to take whatever ideas and suggestions, whatever—I mean, the cofferdam, the top hat, whatever. But I have seen some people that have called me, and we referred them in, and they have never heard once from your company. Is this just if you're not a vendor with us before this occurred, then we are not dealing with you, or are you going to only the vendors and allowing them to select who they are going to deal with? And my reason for this is because if there are good ideas out there, why isn't somebody looking at them?

Mr. HAYWARD. We are trying very hard to engage with everyone who has a good idea. We have been, quite frankly, inundated with hundreds of thousands.

Mr. MELANCON. I know there is a tremendous amount. I know that the first one I saw was wrapped—sheets around a cord hanging with milk cartons to catch oil. So I understand that. Those are easy to go through.

Let me shift to another gear. Do you believe that this administration's moratorium is a result of the tragedy that occurred on Deepwater Horizon, the fact that they put it in was strictly because of what went wrong in Deepwater?

Mr. HAYWARD. I don't know that, but I believe that is the case, and I think it is probably the right thing to do until such time as we have greater clarity.

Mr. MELANCON. And I agree with that. I don't agree with the moratorium because—and as I have expressed to my friends, it is really difficult for us in Louisiana to stand in oil and say we will take more oil, but it is because of the economy, it is because of the jobs we have supported—I have supported—the industry. I support the people.

But it makes sense that BP bear the responsibility of the economic hardship associated with this moratorium. I think you all put 100 million aside for lost jobs. I'm told that in a given month—and I don't know if this is just Louisiana, offshore Louisiana or offshore—but it is about 350 million a month in wages.

Are you and your company going to take responsibility and make sure that these companies that fold up or these companies that have financial hardships, and particularly their employees that they are going to start laying off, are going to be compensated in some way?

Mr. HAYWARD. We made a contribution, having been asked to by the government, up to a fund which will be part of the funding for that issue.

Mr. MELANCON. Do you think 100 million is adequate? And you have been in the oil business for quite a while. Those are good-paying jobs; that is why we want to keep them. But do you think that contribution is adequate for——

Mr. HAYWARD. We made a contribution. We set aside $20 billion for claims.

Mr. MELANCON. Twenty billion is for everybody else, that is businesses and otherwise. I am concerned also with them. Ms. Roshto and Ms. Kemp were in Chalmette the other day. Very brave women, especially so soon after the deaths of their spouses. And at the hearing, Ms. Roshto and Ms. Kemp shared with us questions they had for your company. I would like to hear maybe your response.

Ms. Roshto's husband told her about the problems on the rig, that the well was losing a lot of mud. That is the sort of detail that may not have come to your attention, but it is well known among workers on rigs as a sign of a problem. She wants to know, and she asked this question at the hearing, why your company wasn't working harder to fix the problems on the rig in the weeks before the explosion? Why wasn't your company prepared for a blowout?

Mr. HAYWARD. I think, as I have said all along today, we want to understand exactly what happened such that we can take the right actions going forward. I'm not aware of what you just raised,

but the investigation will determine whether or not—the multiple investigations will determine——

Mr. MELANCON. Investigations are not going to bring back those 11 men to their kids. Not only were these women concerned about your company's preparedness, they were also concerned about your company's values. They wanted to ensure that rigs were kept safe and told us that BP should be held accountable for not protecting their husbands.

Mrs. Kemp asked why money is more important than someone's life. And so I guess on behalf of Ms. Kemp, how do you respond to that?

Mr. HAYWARD. It isn't. It absolutely it is not. As—since I have been in this role, it is something I believed in for a very long time. The priority of everyone involved in these operations is safety. That doesn't come before anything, not anything. It is something that I believe personally very passionately.

Mr. MELANCON. The women talked about in their testimony—I'm sorry, I have gone over my time.

Mr. STUPAK. Finish your question.

Mr. MELANCON. The women talked about in their testimony that their husbands worked for the drilling rig company, for Transocean, and that they pushed safety, they pushed safety, they pushed safety. But in discussions in weeks prior to the explosion, their husbands talked about BP waiving; saying, keep going, keep doing. And I have heard growing up in south Louisiana about the tool pusher or the drilling foreman and the company guys getting into fistfights.

Was there any incidents, to your knowledge, or have you discovered that there was a direct order given by BP that says, keep going, I don't care what is going on?

Mr. HAYWARD. I have not seen any evidence of that whatsoever, and I believe that the operation on the rig in the days leading up to the incident and in that day was carried out because everyone agreed on the rig to move forward.

Mr. MELANCON. Thank you, Mr. Chairman.

Mr. STUPAK. Thank you, Mr. Melancon.

Ms. Castor for questions, please.

Ms. CASTOR. Thank you, Mr. Chairman.

Mr. Hayward, I would like to start out by expressing the anger and frustration of the hardworking people of my home State of Florida at the catastrophe BP has rendered upon our State and all the small businesses, the fishermen, the mom-and-pop hotel owners. We were just coming out of the most severe recession of our lifetime that happened in 2007. Things were getting a lot better. So this is like a sucker punch to the gut to learn that this tragedy is a result of BP elevating profit considerations over safety.

For a decade many in Florida have opposed this drumbeat to bring the oil rigs closer to our beaches over time. We haven't industrialized our coastline like other States. We rely on tourism and clean beaches and clean water, and we really fought it off, even in the face of very well-paid lobbying campaigns and ad campaigns and with a lot of representations that this is safe, this is safe technology, whether it is in deep water or in shallow water.

So, Mr. Hayward, I'm trying to understand how BP was either so unprepared for the possibility of a blowout or ignored the risks, because according to the Minerals Management Service study conducted in 2007, 126 blowouts have occurred at offshore drilling facilities on the Outer Continental Shelf since 1971. In 1979, a blowout at the Ixtoc oil well in the Gulf of Mexico created a disaster that flowed continuously for 290 days. And, Mr. Hayward, you have said that the chances of a blowout and explosion like the one that sank the Deepwater Horizon rig were one in a million, but over the past 40 years, there have been 126 blowouts in the U.S. waters alone. That is roughly three blowouts per year. How could an average of three blowouts every single year for the past 40 years not have registered as more than a one-in-a-million chance risk for your company?

Mr. HAYWARD. With respect, Congresswoman, I think what I said was that the integrity rating of the blowout preventer was of the order of 10 to the minus 5, 10 to the minus 6. That is to say that it was designed to fail between 1 in 100,000 and 1 in a million times.

Ms. CASTOR. And that is an acceptable risk?

Mr. HAYWARD. It is the risk that BP and the industry more broadly use to assess the failsafe mechanism called the blowout preventer.

Ms. CASTOR. I know you rely on these blowout preventers, and you call them failsafes, but they are not failsafes at all in the face of what we have discovered through our committee's examination and the statistics here. This committee has reviewed BP's regional oil spill response plan for the Gulf of Mexico, and not one time in the 582-page plan does BP lay out a method for controlling a subsea gusher after a blowout has occurred. Your company conducted its planning as if an uncontrolled subsea blowout wasn't even a possibility.

In a recent interview with the Financial Times, you admitted, what is undoubtedly true is that we did not have the tools you would want in your tool kit. My question to you is very simple: Why not? Why weren't you prepared? Why did you elevate profits over safety?

Mr. HAYWARD. I don't believe we did elevate profits over safety. What I was referring to in that article was the very complicated engineering problem we were faced with after the rig sank attached to its riser. So we had a well, a riser and a rig on the floor, and we didn't have the pieces of equipment instantly available to cut the riser, to cut off the top of the riser and find a way to intervene on the wellhead. And that is indeed true.

Ms. CASTOR. Mr. Hayward, for years big oil companies and your allies have claimed that drilling is safe, and you want to come closer to Florida beaches, and you say it is safe, deep or shallow, that there are no problems. But on the other hand, we have heard over and over again over the last couple of months this is complex and this is dangerous, it is dangerous to drill miles below the ocean. And BP officials have said it is like operating in outer space, and given the difficulties and complexities in what we really knew, in what you knew about the risks, I can't understand why you all would assume that nothing could go wrong.

So I'm—the doublespeak is rather tiresome. I'm dismayed and disheartened by what has happened and the elevation of profit over safety. And I can only hope that this disaster will motivate us to reassess our priorities and implement a clean energy policy for this country.

Thank you, Mr. Chairman.

Mr. STUPAK. Well, that concludes questions of everybody on the committee. Now there is a few more questions. There are a couple of Members that have a couple of follow-up questions. So we are going to go a quick second round, if we may. So I will start with Chairman Waxman, if you would like to begin.

Mr. WAXMAN. Thank you very much, Mr. Chairman.

Mr. Hayward, you said your priority, your top focus, is on safety, and you feel very passionate about it. Except for your statement to that effect, I see, as you have said over and over again today, no evidence of that. You and other senior officials seemed oblivious to what was happening on the Deepwater Horizon rig. You weren't following the progress of the well. You weren't aware of the risks that were being taken. In answers to questions you said that your top officials under you, Mr. Ingles and Mr. Suttles, you would be surprised if they were following the happenings on the rig. You said you couldn't answer for them, but you would be surprised if they had been following the activities on the drilling rig.

So who was following the activities on the drilling rig? You said there were people there who were the experts in their field. I just find it shocking that when the potential consequences of a mistake on a deepwater rig are so enormous, and you have such a high, passionate commitment to safety, that you seem so removed. I think operating in a deepwater environment is like operating in outer space, and yet you seem to think that all is going to be taken care of in time.

Now, you said there is a team of the best minds in the world working on how to stop the oil spill. When were the best minds in your company paying attention before the spill? You were oblivious, and so were other senior officials. And I think this was a fundamental mistake in management. Let me ask you that: Do you think there was a fundamental mistake in management not to know?

Mr. HAYWARD. I think, as I have said, that we have made it very clear that the focus in the company is on safety. What management can do is ensure that the right people with the right skills are in place, and the right systems and processes are in place, and the right priorities are in place, and the right investment is available to ensure that the plant that we are operating has integrity.

Mr. WAXMAN. So you felt confident that the people who were making these decisions—and we went through five in our letter to you, and many Members asked you about some of these decisions—that the right people were making those decisions?

Mr. HAYWARD. I believe that the right people were making those decisions.

Mr. WAXMAN. And you have no evidence that they didn't make the right decision. That seems to be your position today; is that right?

Mr. HAYWARD. I think at this stage in the investigation, it is premature to draw conclusions as to what was and what was not the right decision.

Mr. WAXMAN. So it is premature.

What investigation or investigations are taking place to determine these facts?

Mr. HAYWARD. There is the BP investigation, there is the Marine Board investigation and the Presidential commission.

Mr. WAXMAN. And are you going to be cooperating with all of them?

Mr. HAYWARD. We are, as we have, Mr. Chairman, cooperated with your committee.

Mr. WAXMAN. Well, I question how cooperative you have been with our committee, because I have heard very little answers to the questions from you today to the questions raised by our colleagues. You were asked whether BP made a mistake in well design. You said you haven't reached a conclusion yet. Mr. Dingell asked whether costs were a factor in your decisions, and you said you didn't know because you weren't there. When Mr. Doyle asked you who made the well design decisions, you said you didn't know.

Our committee is doing an investigation. Now, the reason we are doing an investigation is we want to know how this happened so that we can make changes in the law and the procedures if we are going to allow further drilling. Don't you think you ought to be more forthcoming with us?

Mr. HAYWARD. We will be as forthcoming as we can be, Mr. Chairman.

Mr. WAXMAN. Give me the time horizon for your investigation. When will you have that completed? You have already had 60 days to do it. Is it going on now?

Mr. HAYWARD. It is ongoing. And we want to have access to all of the evidence before we make final determinations. But as we have made very clear——

Mr. WAXMAN. Give me your estimate of when that will be concluded.

Mr. HAYWARD. One of the most important elements in this is the blowout preventer. It remains on the seabed, and it needs to be examined.

Mr. WAXMAN. So we will put that aside. How about the other decisions before the explosion about the casing, about the centering of the well, about all of the other things that have been raised, have you reached any tentative conclusions that you can share with us?

Mr. HAYWARD. As we shared with you recently, we have identified 7 areas, areas of focus in our investigation. And we will continue to share our understanding and our thinking with you as that develops.

Mr. WAXMAN. Mr. Inslee asked you if there was any action that appeared—if there was any action to save money, and you said there is no evidence of that. I can't believe you said there is no evidence of that. There is evidence. You want to know more about it, but there is evidence to that effect, isn't there?

Mr. HAYWARD. There were decisions taken by the people at the time, and some of them, sitting here today, appear they may have been to deal with money. But it is not clear. The——

Mr. WAXMAN. The evidence is not conclusive, but there is evidence.

Mr. HAYWARD. The decision, for example, to run a long string versus a liner was, as it shows in the document that you highlighted to me, a decision to do with the long-term integrity of the well.

Mr. WAXMAN. There is evidence, and evidence may point in a certain direction. There may be evidence that points in another direction. So you take the evidence and reach a conclusion based on the preponderance of the evidence. That is not to say there is not evidence, when we have some of these clear examples.

Let me ask you this. You can't give us a time for when this investigation is going to be complete, so we are relying on you to do your own investigation. Why should we rely on you to do your own investigation? I don't think you have a terrific record of reliability that should give us comfort to have us step back and just wait to get answers from you until you have done your own investigation. Why should we rely on that?

Mr. HAYWARD. We are clearly not the only people doing an investigation. There are many people doing investigations. All I have committed is that as our investigation proceeds, we will share with you all of our findings and all of the data and all of the information.

Mr. WAXMAN. Let me just say in conclusion, we delayed this hearing today so you could be prepared to answer our questions. We sent you our questions in advance, yet you have consistently ducked and evaded our questions. There may be some reason you think this approach makes sense, but your evasion will make our job more difficult. It will impede our understanding of what went wrong and will make it harder for us to draft appropriate reforms.

I think that is regrettable and an unfortunate approach for you to take to the work of this committee of the United States Congress. And I will look forward to seeing what you come up with, but we are going to get evidence, and I would like you to submit for the record the names of the individuals who made those decisions in each of the areas that were under discussion in the letter we sent you. Would you be willing to do that.

Mr. HAYWARD. We will make that available to you——

Mr. WAXMAN. Thank you.

Mr. HAYWARD [continuing]. As we have made everything, to my knowledge, available to you.

Mr. WAXMAN. Maybe they will have some answers they can share with us. Thank you very much.

Thank you, Mr. Chairman.

Mr. STUPAK. Mr. Barton for questions.

Mr. BARTON. Thank you, Chairman Stupak.

We are about to finish up this hearing. We do appreciate your patience in listening to all the various members of the subcommittee.

What one or two recommendations are you prepared to give about what we could do to prevent a future accident of this type

now that you know what you know and you have listened to what the Congress knows here today? Are there one or two things that you would like to suggest for consideration to prevent an accident of this type from happening in the future?

Mr. HAYWARD. I believe the most important one is to take the failsafe mechanism called the blowout preventer and design is such that it is genuinely failsafe. The reality in all industrial accidents is that there are always a combination of equipment failure and human judgment. And the most important thing is to have in place a system that is genuinely failsafe. And it is clear, based on our experience of this accident, that the current design basis of the blowout preventer being used in the deep water, not just in this case, but across the world, is not as failsafe as we believed it to be. And I believe that is a very important lesson that the industry needs to grasp, along with the relevant regulatory agencies.

Mr. BARTON. Much has been made of the complexity and the risks associated with drilling these deep wells. Would you care to—I have asked some of your subordinates to give us some sort of an assessment of the potential size of this particular field of this particular well. I have asked the Texas Railroad Commission and the Texas Geological Survey what the largest onshore oil well in Texas in its history of over 100 years has been, and with the exception of the initial discovery at Spindletop in 1901, we can't find a record of any well on shore in Texas, which has been the number one oil-producing State in the country for over 100 years, with the exception of a few years where Alaska at Prudhoe Bay, at its peak that flowed at 50,000 barrels a day. And the latest estimates are that this well in this condition could be flowing as much as 50,000 barrels a day. If you extrapolate that on an annual basis, that is over 100 million barrels of oil a year.

So could you give us some assessment of why BP and other companies go to such extraordinary measures to drill in these areas? What is it that you think you found or are hoping to find beneath the Gulf of Mexico?

Mr. HAYWARD. In the instance of this well, we believe that the discovery was of the order of 50 million barrels.

Mr. BARTON. Fifty million?

Mr. HAYWARD. Fifty million barrels. That is our estimate of the discovery—the size of the discovery that this well made.

Mr. BARTON. So at the rate it is flowing, it ought to peter out pretty quickly; 50,000 barrels a day is 350,000 barrels a week, which is 3.5 million in 10 weeks, which is 35 million in 100 weeks. So I was told it was on the order of 500 million barrels.

Mr. HAYWARD. That is not correct, Congressman. This is a discovery based on the—clearly on the well and the seismic information we had available to us, which is——

Mr. BARTON. So it is just that the extreme pressure—I mean, it couldn't flow at this rate in full production?

Mr. HAYWARD. That's correct.

Mr. BARTON. Is that a fair statement?

Mr. HAYWARD. That's correct.

Mr. BARTON. Would you care to tell us what it would flow at, what you expected it to flow at per day?

Mr. HAYWARD. I think at a producing well, properly completed, we would expect it to be between perhaps 15- and 25,000 barrels a day.

Mr. BARTON. And lastly, with the moratorium that is currently in existence in the Gulf of Mexico for the deep areas, the 6-month moratorium, I know you have to do—we want you to stop this spill and clean it up, but there are other areas that could be explored. What other areas might BP go to instead of in the Gulf of Mexico?

Mr. HAYWARD. Well, we have deepwater drilling exploration and production operations in a large number of locations around the world; in West Africa, Brazil, Egypt, to name the three, as well as the U.K. in the North Sea.

Mr. BARTON. So you would focus on those areas if this moratorium continues?

Mr. HAYWARD. We are focused today on the relief well.

Mr. BARTON. I understand that, and you should be. You better be.

Mr. HAYWARD. I haven't thought, frankly, beyond the relief wells in terms of activity in the Gulf of Mexico.

Mr. BARTON. Thank you, Mr. Chairman.

Mr. STUPAK. Thank you, Mr. Barton.

Mr. Hayward, in the line of questioning throughout the day, you have referred to the blowout preventer. Mr. Gonzalez, when he asked you questions, and Mr. Barton just asked some questions on there. Back on June 4th, you wrote an editorial for the Wall Street Journal. In talking about the blowout preventer, you stated, we in the industry have long had great confidence in the blowout preventer as the ultimate failsafe piece of safety equipment, yet on this occasion it failed with disastrous consequences. Do you still believe the blowout preventer should be considered the ultimate failsafe?

Mr. HAYWARD. I believe so. Either a blowout preventer or some similar mechanism.

Mr. STUPAK. I'm a little surprised by your comments, because the committee received a document—you have the document binder right there. You may want to refer to it—that evaluated the blowout preventer used on the Deepwater Horizon rig. The document was prepared in 2001. It is tab No. 14 right there, and we have put it up on the screen.

In 2001, when Transocean bought the blowout preventer, I want to show the executive summary in which BP participated with it in this review. And it says, engineering and operations personnel identified 260 failure modes.

Do you see where it says that towards about top third of it? OK.

So BP engineers helped to identify these 260 failure modes. So how can you write or how can you testify—but how can you write in the Wall Street Journal 2 weeks ago that you thought the blowout preventer was the ultimate failsafe when your own engineers examined the blowout preventer 9 years ago and found 260 failure modes in it? How can you ever say it is the ultimate failsafe?

Mr. HAYWARD. I haven't seen this document previously. I apologize for that, but I haven't.

Mr. STUPAK. Well, now knowing there are 260 failsafe modes in this blowout preventer that was on Deepwater Horizon, it never was the ultimate failsafe, was it?

Mr. HAYWARD. The blowout preventer is designed to be the ultimate failsafe. That is the design basis. It is the basis for which the industry has operated for 30 years in deep water.

Mr. STUPAK. Let me ask you this: As the CEO, why, then, did your company change the blowout preventer failsafe method or mechanism? For instance, we found other things that showed that this blowout preventer was not failsafe. At our first hearing, May 12th, I asked in review of it that the blowout preventer had been modified in ways which would increase the risk that it would blow out, that it wouldn't work. OK? One modification, for instance, was to remove the important variable bore ram and replaced it with a test ram that made it ineffective in case of an emergency.

At our hearing I asked Mr. McKay, who is the president of BP America, about these modifications. He testified under oath, he took the oath, and he said he didn't know anything about modifications. We have since learned that BP approved modifications despite being warned that it would reduce the safety of the blowout preventer. I would like to display it again. It is tab No. 10 right in your book right there. Here is a letter from 2004 from Transocean sent to BP that BP signed and acknowledged. And it says, BP acknowledges that the conversion—the conversion you asked for—the conversion will reduce the built-in redundancy of the BOP, thereby potentially increasing the contractor's risk profile.

So what does that mean, BP, that you reduce the built-in redundancy, increase your risk? You asked for modifications which limit the redundancy and increase your risk, right? BP did.

Mr. HAYWARD. Again, I haven't seen this document previously. What I do know, there were modifications made to the blowout preventer. In particular a test bore ram was added. It was not a subtraction. It was an addition to the blowout preventer is my understanding.

Mr. STUPAK. But here is our problem. Your territory will say this is the ultimate failsafe. We find out it is modified. We ask your representative, Mr. McKay; he says no, no. We get down to the hearing, we get documents showing, in fact, BP asked for it. BP was warned that the ultimate failsafe system, the way BP wanted it modified will increase the risk of a problem. And that is the one we have here in Deepwater Horizon.

So how can we write an editorial—you can't have it both ways here. How can we write an editorial saying, "Oh, this is the ultimate system"—and even your own engineers said there are 260 different ways it can fail. Then you add some more to it.

Mr. HAYWARD. The——

Mr. STUPAK. Go ahead.

Mr. HAYWARD. The blowout preventer is designed to be the failsafe mechanism in the drilling industry.

Mr. STUPAK. Correct.

Mr. HAYWARD. That has been the case since blowout preventers were created.

Mr. STUPAK. But you are the CEO. You have been head of exploration, drilling, all this. Does it make sense to you that this is the ultimate failsafe system when there are 260 different ways it can go wrong? Plus, you, your company modifies it, which increased the risk of things going wrong?

Mr. HAYWARD. The fact is, it is the ultimate failsafe mechanism.

Mr. STUPAK. Let me ask you this. OK, this well, you started drilling it last fall, the Macondo well, last fall, using the different rig, the Marianas. It was harmed, it was damaged in the hurricane, so you replaced it with Deepwater Horizon.

In November of last year, Transocean pulled out the blowout preventer from the ocean floor because its shear rams weren't working. The lower annular would not close, and the upper annular had been stripped through during a well-control event.

We know that BP was aware of this because Transocean—and, again, it is Document No. 12 there in our binder—reflect conference calls with BP about the problems with this blowout preventer. In addition, Transocean records indicate the incidents state that the estimated down time forced by the malfunction is a conservative 10 days at $444,111 per day, or $4.4 million, as it shows.

So how can you say blowout preventers are failsafe devices when the blowout preventer you are using on the well in November had to be removed because of malfunctions?

Mr. HAYWARD. Well, of course, the answer is, they are the failsafe mechanism, and when problems are identified with them, they are rectified. And I believe that is what has taken place.

Mr. STUPAK. You know, you can't have it both ways here. This accident occurs. You have a blowout preventer you know had 260 different errors in it, ways it could go wrong. You modify it. You pull it in November of 2009. You see there are all kinds of problems. This accident happens. So you write this editorial in the Wall Street Journal saying, "Hey, it ain't our fault. It's mechanical." You said earlier, an accident is because of mechanical failure and human judgment—human error.

It seems like we have more human error than mechanical, because the mechanical safeguard, the ultimate failsafe, really wasn't an ultimate failsafe. They can fail in many ways, and that is exactly what went wrong here and that is what happened on the 20th.Correct?

Mr. HAYWARD. What is clear is that the ultimate failsafe failed to operate in this case. That is absolutely clear.

Mr. STUPAK. Why would a company like BP, when you are doing this deepwater drilling, modify the ultimate failsafe if it is supposed to protect the American people and our environment? Why would you modify it, increase the risk of problems? You knowing it, you sign a document. The contractor warns you not to do it, and you still do it. That is the problem we are having.

Mr. HAYWARD. As I said, the blowout preventer is the failsafe mechanism. It is designed to be exactly that.

Mr. STUPAK. Questions, Mr. Burgess?

Mr. BURGESS. Thank you, Mr. Chairman.

Mr. Hayward, it has been a long day.

You said earlier, if I recall correctly, that everyone in your organization, in the culture of safety, not only had the right to curtail

operations but the obligation if they saw something going on that was not safe. Is that correct?

Mr. HAYWARD. That is correct.

Mr. BURGESS. And in response to a question from the other side of the dais, and I don't remember who asked it, you also made the assertion that the right people were making the decisions on the rig. Did I hear that correctly?

Mr. HAYWARD. I believe that is the case.

Mr. BURGESS. Who is Donald Vidrine?

Mr. HAYWARD. He is the well site leader on—one of the well site leaders on the Deepwater Horizon.

Mr. BURGESS. So he was referred to in a Wall Street Journal article as the company man or the BP man on the Deepwater Horizon the day of the blowout. Is that correct?

Mr. HAYWARD. That is correct, yes.

Mr. BURGESS. I don't know if you are familiar with the article that was in the Wall Street Journal, and this has been several weeks ago, on May 27th, I believe. They talked about a skirmish between some of the Transocean folks, the chief engineer or chief mechanic on the Deepwater Horizon, and the rig's top manager, Jimmy Harrell.

Are you familiar with that discussion that apparently was quite a heated discussion? I think Mr. Gonzalez was actually the one that brought it up.

Mr. HAYWARD. It is my understanding, Congressman, that that account has been contradicted under oath in the Marine Board investigation and that there was no debate or skirmish or any other heated discussion.

That is what—I can't recall exactly who it was, but, under oath at the Marine Board investigation, I believe it was the Transocean tool pusher, testified that there was no either heated discussion or debate or anything else.

Mr. BURGESS. Would that would be the tool pusher Miles Ezell?

Mr. HAYWARD. I believe that is the case, sir.

Mr. BURGESS. It wasn't Dewey Revette, because he died in the accident. And he was one of the other witnesses to the altercation.

Well, you know, if this occurred, even if it only partially occurred, it just seems like there was enough discussion that someone should say, "Wait, let's not go forward with this because at least some of our number feel it is unsafe." And, again, you said that the men would have the obligation, not just the right, to say let's halt; he would have the obligation to say, well, let's get everyone on the same page with this.

Am I wrong to assume that?

Mr. HAYWARD. You are not wrong. And I think you can only conclude they all believed that it was right to proceed.

Mr. BURGESS. Are we ever going to get a chance to talk to Mr. Vidrine? Will BP make him available to our committee?

Mr. HAYWARD. If you call him, of course.

Mr. BURGESS. Let me ask you another question. You said in response to some information that came up that there was no evidence that BP was focusing on the cost of drilling. And, yet, March 2010 strategy presentation, you stated, "We have added exploration resources efficiently. Our discovery cost was $1.40 per barrel in

2009. This is consistent with our track record over the last 5 years of having the lowest discovery costs in the industry."

Now, certainly, that would be enviable, except, in a culture of safety, I mean, I might even spend $1.45 or $1.47, instead of just $1.40, if it meant that it was a safe procedure.

So was maintaining the lowest-cost discovery in the industry possibly a factor in the decision-making on this well?

Mr. HAYWARD. None whatsoever.

But that metric is created by dividing the volume of barrels discovered by the costs. And what it talks to is the success of our exploration program and the scale of the volume that we have discovered, not anything to do with costs.

Mr. BURGESS. Well, but it does have something to do with cost. Now, it has been reported that completion of the Macondo well was running behind schedule. Is this accurate?

Mr. HAYWARD. I believe it was running behind schedule, that is correct.

Mr. BURGESS. How far behind schedule?

Mr. HAYWARD. I don't know the precise number.

Mr. BURGESS. What does it cost today to run a rig like that?

Mr. HAYWARD. That sort of rig, fully built up, the cost is probably a million dollars a day or thereabouts.

Mr. BURGESS. So, even a couple of days over is a significant cost driver on that $1.40-a-barrel minimal discovery cost in the industry.

Mr. HAYWARD. Well, with respect, Congressman, the most important thing was that actually we had made a discovery, and we wanted to secure it in the proper way. And that was going to be a far bigger driver of any value that the company was going to create than the cost of the operation.

Mr. BURGESS. I don't disagree with that. But, oh, how I wish that that had been the case, as we are investing hearing after hearing after hearing on this thing case and the darned thing is still bubbling down at the bottom of the gulf. That doesn't seem to be accurate.

Is your own investigation looking at the issue of whether or not cost drivers were an issue in the problems that were created?

Mr. HAYWARD. Our investigation is covering everything.

Mr. BURGESS. So it wasn't on your list, but, nevertheless, it will be included in your——

Mr. HAYWARD. Well, my list is the early findings of the investigation in terms of the key areas to focus on—areas around cement, casing, the integrity test——

Mr. BURGESS. Got it.

Mr. HAYWARD. —well control procedures.

Mr. BURGESS. I got it. We are running out of time here.

But when you said your investigation was proceeding without privilege early on in the hearing today—so it would also cover the issues of whether or not cost drivers were an issue in creating the problems?

Mr. HAYWARD. It will cover everything.

Mr. BURGESS. Thank you, Mr. Chairman.

You know, I would just echo what Mr. Scalise said earlier. We get calls all day or night, faxes come in, people have got ideas on

how to fix our problem in the gulf. I really wish you guys would open up an 800 number and take these things and vet them and listen to what people are saying. Americans are terribly—we have a lot of ingenuity in America. And people are watching that thing that Mr. Markey made everyone's computer screen show 24 hours a day. It is driving people crazy to watch that thing bubbling in the gulf. People are coming to us with solutions. There needs to be a central location. I don't care whether it is you, I don't care whether it is Dr. Chu, but somebody needs to be vetting these things and, if there is a reasonable idea out there, put it to work.

Thank you, Mr. Chairman.

Mr. STUPAK. Mr. Markey for questions.

Mr. MARKEY. Thank you, Mr. Chairman, very much.

Mr. Hayward, is the most optimistic date for the relief well to be completed still August?

Mr. HAYWARD. That is our current timetable.

Mr. MARKEY. Is August also the earliest date the leak can be stopped? Or will it take more time after the relief well is complete before the flow of oil is permanently halted?

Mr. HAYWARD. The relief well will halt permanently the flow of oil.

Mr. MARKEY. Mr. Hayward, in 2009, an independent firm that BP hired to serve as its ombudsman, headed by former Federal Judge Stanley Sporkin, substantiated that BP was violating its own policies by not having completed engineering documents onboard another BP rig operating in the Gulf of Mexico, the BP Atlantis, when it began operating in 2007. One BP official warned that the absence of these safety documents could lead to catastrophic operator error.

Let me read to you from an internal BP e-mail. And this goes from Barry Duff, BP employee, to other engineers at BP. Here is what he said. He said, "The P&IDs for subsea are not complete and have not been approved, are handed over to operations. The current procedures are out of date. The risk in turning over drawings to the people out on the rig running the Atlantis that are not complete are: number one, the operator, the BP operator, will assume the drawings are accurate and up to date. This could lead to catastrophic operator errors due to their assuming the drawing is correct. Turning over incomplete drawings to the operator, the BP operator, for their use is a fundamental violation of basic document control. Having the project document control person turn over drawings that are not complete places the onus on her that they are the most current version. Currently, there are hundreds, if not thousands, of subsea documents that have never been finalized yet the facilities have been turned over."

Mr. Hayward, BP's managing attorney stated to the Associated Press on May 15th of this year that BP has reviewed the allegations and found them to be unsubstantiated.

Mr. Hayward, were all of the engineering documents and drawings necessary to operate the Atlantis rig safely and fully completed before the Atlantis rig began operating in the Gulf of Mexico?

Mr. HAYWARD. When this issue emerged, we conducted a full investigation and determined that all of the drawings that were nec-

essary to start up the operation were available to the people starting up the operation at the time the operation started up.

Mr. MARKEY. Mr. Hayward, Mr. Duff was relieved of his duties in the middle of August of 2008. A new person was put in charge as a result. His name is Ken Abbott. Ken Abbott has been testifying all day in Washington across the street in the Natural Resources Committee.

He is a whistleblower. He got fired 6 months after he replaced Mr. Duff because he raised the very same concerns, that there was not proper documentation on the BP Atlantis. He was fired even though he raised issues that obviously have a lot of resemblance to the kind of attention to the safety protocols that were part of the BP–Horizon rig.

Is it part of your policy, Mr. Hayward, to fire employees who raise questions about the safety of your rigs?

Mr. HAYWARD. No, it is not.

Mr. MARKEY. Well, Mr. Hayward, I am afraid that that is what happened to Mr. Abbott. Because not only was he fired, but 2 weeks later they put out—and was told that he was just part of a force reduction, but your company then put out an advertisement to hire someone to replace him on that job.

Earlier, you said all of the other BP wells in the Gulf of Mexico that had been completed are secure and are safe to operate. Do you still stand by that?

Mr. HAYWARD. I do.

Mr. MARKEY. Now, do you know that Judge Sporkin said that it is not true that the documents were completed when he substantiated Mr. Abbott's allegations? So how do you account for that, that you hire an ombudsman, he is a former Federal district court judge, he comes in, he does the evaluation, and he substantiates the whistleblower's allegations? How do you in any way justify then firing the person who actually brought these issues to your attention?

Mr. HAYWARD. As I said, the investigation concluded that the drawings necessary for start-up were on the Atlantis facility. Judge Sporkin, our ombudsman, is investigating the issue of unfair dismissal, which is quite appropriate.

Mr. MARKEY. Well, I ask for you to provide a copy of the investigation which you are conducting, Mr. Hayward, for the record.

Mr. HAYWARD. We can do that.

Mr. MARKEY. OK. We will put that in the record.

I think, Mr. Hayward, that the only thing worse than one BP rig at the bottom of the ocean in the Gulf of Mexico would be two BP rigs at the bottom of the ocean.

I think this is just another example of you running through all of the red lights, all of the warnings. Judge Sporkin is one of the most respected people in this city. He has corroborated the charges that were being made by this now-fired employee who was raising safety concerns.

I am afraid, once again, it is a blistering, scalding indictment of the lack of a culture of safety that you had at BP. And I just think that it is something that has to end before we see another disaster.

Thank you, Mr. Chairman.

Mr. STUPAK. Thank you.

Before I go to Mr. Latta, let me ask unanimous consent that we have the document binder be entered in the record, provided that the committee staff may redact any information that is business propriety, relates to privacy concerns, or is law-enforcement sensitive.

Mr. MARKEY. Mr. Chairman, may I just ask for 30 seconds, one additional question?

Mr. STUPAK. Let me finish what I am doing here.

Mr. MARKEY. OK.

Mr. STUPAK. Without objection, the documents will be entered into the record.

[The information appears at the conclusion of the hearing.]

Mr. MARKEY. May I just ask——

Mr. STUPAK. It has to be really quick, Ed. You never ask a 30-second question.

Mr. MARKEY. Mr. Hayward, will you shut down the BP Atlantis until these safety questions have been answered?

Mr. HAYWARD. I believe they have been fully resolved, Congressman.

Mr. MARKEY. I do not think that that is the case.

Thank you, Mr. Chairman.

Mr. STUPAK. We will take time for Mr. Latta. Mr. Latta for questions, please?

Mr. LATTA. Thank you, Mr. Chairman.

If I could just follow up with some questioning that Ranking Member Burgess was on, talking about the schedule.

My first question is, what is the process that BP executives have developed when it comes to schedules, especially for the offshore wells in the gulf? Is there a schedule? Who makes the schedules?

Mr. HAYWARD. The schedule, the drilling program for the—is that the——

Mr. LATTA. Right. Who is in charge of the scheduling for those?

Mr. HAYWARD. The drilling programs are created by the engineering team, overseen by the vice president for drilling and completions and the business unit leader and, in this case, the exploration manager in the Gulf of Mexico.

Mr. LATTA. Now, are you consulted in the development and maintenance of those schedules?

Mr. HAYWARD. I am sorry?

Mr. LATTA. Are you consulted at all in the development or maintenance of those schedules?

Mr. HAYWARD. I am not.

Mr. LATTA. Is there a committee higher up that is then consulted at BP about those schedules?

Mr. HAYWARD. About the schedules of drilling?

Mr. LATTA. Correct.

Mr. HAYWARD. There are several groups that would look at the schedules of drilling.

Mr. LATTA. Now, I guess in a corporate structure, how high up would those committees be or those groups that would be looked at that?

Mr. HAYWARD. It would be within the Gulf of Mexico business unit.

Mr. LATTA. Let me ask this: Would a well of this type, being as deep as it is, being as tough as it would be, it sounds like, to drill, would that elevate it to a higher standing that folks higher up at BP would be consulted on it? Or is it just still kept in the gulf with that region right there?

Mr. HAYWARD. The design and operating practices would be signed off at the level of the vice president of drilling and completions in the Gulf of Mexico.

Mr. LATTA. OK. So you would never be consulted on that then?

Mr. HAYWARD. No.

Mr. LATTA. Thank you very much, Mr. Chairman. I yield back.

Mr. STUPAK. Thank you, Mr. Latta.

Mr. Braley for questions, please.

Mr. BRALEY. Mr. Hayward, at the beginning of this hearing, I showed you a couple of short video clips from two of the women who testified last week at our field hearing in Chalmette, Natalie Roshto and Courtney Kemp. And one of the questions they posed during that hearing was what they would tell to their children about why their fathers died on this Deepwater Horizon rig.

You began your testimony a very long time ago today with these words: "The explosion and fire aboard the Deepwater Horizon and the resulting oil spill in the Gulf of Mexico never should have happened."

What do you think that those two young mothers should tell their children about why this happened, based on what you know?

Mr. HAYWARD. Based on what I know, that this was a tragic accident involving many failure mechanisms. That is the reality. That is why this happened.

Mr. BRALEY. Is there blame to go around among all of the companies that were working on that well site?

Mr. HAYWARD. I don't believe now is the time to try and apportion blame. I believe now is the time to try and understand what happened. And that is what the investigations are trying to do.

Mr. BRALEY. Well, the reason I am asking that is because, during other congressional hearings, there has been finger-pointing on. And I assume you have been following what has been going on in the hearings and are aware of that.

Mr. HAYWARD. As I said, I don't believe that this is the time to finger-point or apportion blame. I believe this is a time to understand fully what caused this accident such that the industry and BP can learn for the future.

Mr. BRALEY. Well, I am glad you brought that up, because one of the things that BP has been taking responsibility for is the cleanup costs and the payment of all legitimate claims. We have heard that phrase over and over again.

And we have also seen press accounts where BP spokespeople have said, as the responsible party, we are required to handle those claims, and then we will wait until some later date to deal with the apportionment of responsibility among the various parties.

Are you aware of that?

Mr. HAYWARD. I am.

Mr. BRALEY. Well, let's talk briefly about the claims process and some of the problems that are currently part of that process.

One of the things we know is that, under the oil pollution claims process, a claimant can't file suit until a presentment of claim is made. Are you familiar with that process?

Mr. HAYWARD. I am not familiar with the details.

But what I can say is we have set up an independent claims facility under Ken Feinberg. He will have the full authority to adjudicate on claims. Within that system, there will be an opportunity for anyone to appeal to three judges.

That system does nothing to deny anyone any rights with respect to any other claims process. It is simply a way of expediting the claims process such that it is fair, efficient, and fast.

Mr. BRALEY. I want to talk to you about that, because this is what I have been hearing from people involved in the preliminary claims process with BP. I have been informed that BP's position, under their current claims process, is that a submission of a claim is not a presentment for the purpose of beginning a claims process under the Oil Pollution Act. And the reason BP has taken that position is because they do not consider it to be for a sum certain if there are future losses that have not yet been determined or if there are ongoing economic losses with no date certain.

Are you aware of this process?

Mr. HAYWARD. I am aware in general terms of the process.

Mr. BRALEY. Well, do you understand the problem that creates for somebody with an ongoing economic loss, like Ronnie Duplessis, the shrimp boat officer who testified at our hearing last week, who is without work because the fishing beds that are part of what he does for a living are not available to him?

Mr. HAYWARD. We are endeavoring—I believe we have put in place a process whereby we pay money and it means nothing about future liabilities.

Mr. BRALEY. Yes, but my question——

Mr. HAYWARD. No one has given away the opportunity to claim future liabilities.

Mr. BRALEY. I am not implying that. I am talking about a process that actually puts money in the hands of people who desperately need it because their income source has been destroyed by this oil disaster at your rig.

Do you understand their frustration, when they have gotten a check, in the case of Mr. Duplessis, for $5,000, which represents a very small amount of the monthly gross income he gets from his business, to feed his family?

Mr. HAYWARD. I understand fully. I have spoken to many people on the gulf coast, to fishermen, to shrimpers, to small hotel owners, and I——

Mr. BRALEY. Can you understand, then, sir, why they are frustrated? If BP is taking the position in this claims presentment process that every time they cannot define their future economic loss they have to submit another claim as soon as that loss becomes defined for a fixed period of time and then another claim and another—do you understand how that could be frustrating?

Mr. HAYWARD. I do, Congressman. And——

Mr. BRALEY. So——

Mr. HAYWARD [continuing]. In terms of the last weekend—if you would just let me finish, please—we have put in place a process for

small businesses where they can project forward for the next month what it is they expect to lose by way of cash flow, and we will pay it now.

I am very conscious of the issue of small businesses who have ongoing cash-flow demands. So we are trying very hard to ensure that money is paid in advance for commitments for people have already taken, rather than in arrears. And that is what we will continue to do.

Mr. BRALEY. And will that be part of the fund that Judge Feinberg is administering?

Mr. HAYWARD. That process will be transferred into Ken Feinberg's process, and that is the basis on which we will move forward.

Mr. BRALEY. Thank you.

Mr. HAYWARD. And in the course of the last week, we have paid out over $15 million to small businesses on that basis.

Mr. STUPAK. Thank you, Mr. Braley.

Mr. Welch for questions.

Mr. WELCH. Thank you, Mr. Chairman.

Mr. Hayward, can you point to any single bad decision that was made in connection with Deepwater Horizon?

Mr. HAYWARD. As I have said often today, I am not prepared to point today, with a half-complete investigation, as to what was and was not a bad decision.

There are many components to this accident, to do with, as I have said, the casing, how it was run; the cement job, how it was conducted; integrity tests that may or may not have been well-interpreted. At all stages, everyone on the rig decided that the right thing to do was to continue. We need to understand how that came about.

Mr. WELCH. I understand that. But, with the benefit of hindsight and whatever investigatory work has been done, both by you and by others, at this moment, 57 days after this event, is there anything you can identify that was done wrong?

Mr. HAYWARD. I am not able to draw that conclusion at this time.

Mr. WELCH. OK.

Well, yesterday, Mr. Hayward, I think BP took a very constructive step in agreeing to deposit $20 billion in an independently administered fund to compensate victims and to pay for the cleanup. It was a first step in establishing confidence in BP, confidence that BP's words would be matched by their deeds.

But today, regrettably, your appearance here has done a good deal, at least for me, to erode that confidence. We know you are not an engineer, and we know that you were not on the Deepwater Horizon. But your answer 65 times that you don't know to questions that were reasonably posed to you on both sides of the aisle erodes confidence; it doesn't inspire confidence.

You know, the question that any company has to ask itself is whether it has strict procedures in place to make disciplined decisions that give it confidence that, at a critical moment, where the lives of its workers and the investment of its shareholders is at stake, critical judgment will be exercised. And that is the obligation of the CEO. However it is you accomplish that ability to hold your

workers accountable and support them, that is the job of the CEO, whether it is a small company or a large company.

And at that very critical moment when that well was going to be capped and decisions had to be made about the ceiling of the well, whether to use a cheaper and quicker casing design, whether to use more or fewer casing centralizers, whether to run a critical cementing test, whether or not to circulate drilling mud, it does not appear that anybody was in charge.

And that is the erosion of confidence, because the lack of procedures, the lack of people being in charge, and resorting to the least-cost alternative clearly played a major role in this catastrophe.

I yield back.

Mr. STUPAK. Thank you, Mr. Welch.

Mr. Scalise for questions, please.

Mr. SCALISE. Thank you again, Mr. Chairman.

Mr. Hayward, going back for a few more of the questions that we continue to have, why was a cement bond log not performed?

Mr. HAYWARD. I don't know why a cement bond log wasn't performed. I wasn't there. I didn't take the decision. What I understand——

Mr. SCALISE. I know you have to——

Mr. HAYWARD. What I understand from discussion with the investigation team is that the conclusion reached on the rig by BP, Transocean, was that they had a good cement job, that they had got returns at the surface, that the right volume had been pumped, and they had pressure integrity.

Mr. SCALISE. And they based that on readings of some other test that they performed, or——

Mr. HAYWARD. On the basis of those three things, they determined that they had a good cement job. And it was on that basis——

Mr. SCALISE. So there is no BP procedure to perform that test. You leave it up to the discretion of the company man on the rig or somebody else on the rig?

Mr. HAYWARD. There is no requirement to perform a cement bond log.

Mr. SCALISE. Are you going to change that policy and make it a requirement?

Mr. HAYWARD. It is one of the things we need to look at in the light of this accident.

Mr. SCALISE. When we talk about, you know, all these different ideas—and, like I said, I just gave you some. We get lots of them. I tried to filter some out. I don't know if you have seen the presentation of people putting hay in the water, and the oil comes on to the hay and the water doesn't, and then it rolls up and you can clear that away—all kinds of ideas like that.

What is your process for all of these people that are submitting ideas, many of which have tremendous merit and then none of which we see being used in the water?

Mr. HAYWARD. Well, I think, with respect, we have used many of the ideas that have been submitted, Congressman.

We do have a process, and there are thousands, hundreds of thousands, actually, of ideas that have been submitted. And we have a process to work through them and to utilize them. And we

have used very many that have been submitted from individuals across the United States.

Mr. SCALISE. Well, hopefully we will be able to get some more of those implemented. Because, as I said earlier, there is not enough that you can do. If you have more ideas, try them all, because there is a lot of oil in the gulf. And if something works, do more of it. If it doesn't work, you can go on to something else.

Is that structure just BP's structure? Is there some unified command——

Mr. HAYWARD. It is part of the unified command structure.

Mr. SCALISE. So are there any Federal agencies involved in that?

Mr. HAYWARD. There is a team of people. So as e-mails and suggestions come in, they are forwarded to a team of people, and they are evaluated and implemented based on that team of people that sits within the unified command structure.

Mr. SCALISE. Well, local people that are affected by this, we are still hearing from lots of local people—fishermen that can no longer fish; people that have oyster-processing companies and now some of those oyster beds are closed so they have no oysters to process; boat captains. These are all people that don't want to just get some unemployment check. They want to work, but they can't work.

Many of them are frustrated that they are not being engaged to work on the cleanup. And they are the ones most vested; they are the ones on the ground who want this cleaned up with the most urgency. And it seems like many of them are frustrated that they are being shut out, and then they are seeing people bused in from out of State that come in in the day and then they are bused out again at night that just don't have the same kind of passion. And it is kind of confusing. Why are they not being employed, if they want to work, if they are there on the ground?

Mr. HAYWARD. We made every effort to use everyone locally who wants to participate. We have almost 10,000 Vessels of Opportunity—the local fishermen employed in the Vessels of Opportunity program. And we have——

Mr. SCALISE. I was notoriously told—and this was reported in many media accounts, but I have actually spoken to the parish official on the ground who actually did this. Just a few weeks ago, there were 50 of those boats, Vessels of Opportunity, that were contracted by you that were supposed to be putting out boom. Those boats were sitting idle at the dock, not putting out boom, as oil was coming into our marsh. And this parish official actually went out and they commandeered a number of those boats and just went and put it out themselves.

There is no excuse for that. What kind of method do you all have in place? If you are just giving people a check and telling them to sit the boat at the dock—we don't need the boat at the dock. We need the boat out putting the boom so that the oil doesn't get into the marsh.

And, again, it gets into this sense of urgency. It is not just about writing checks. I mean, that is important, but it is even more important that the work gets done in a quick time frame. And that is not what is happening. There is no quick turnaround. And then things like that continue to happen.

Are you going to change something on the ground to emphasize that it is not just about running a PR campaign? We have things that have to happen quickly because there just isn't the time for days to go by with these kinds of delays.

Mr. HAYWARD. Our focus is to continue to improve the quality of the response and the engagement of the people in the initial area. It has been the biggest challenge, and we continue to work it very hard with the incident commander Thad Allen and the Coast Guard.

Mr. SCALISE. Let me ask you, is the casing cracked or damaged below the sea floor?

Mr. HAYWARD. We don't know that, of course, because we haven't been able to get into the well.

Mr. SCALISE. There is nothing that you have seen that would show that?

Mr. HAYWARD. We have no way of knowing that.

Mr. SCALISE. OK. And I know——

Mr. STUPAK. Time, Steve.

Mr. SCALISE. And I apologize.

Mr. STUPAK. Go ahead, one more. Go ahead.

Mr. SCALISE. Mr. McKay was here, testifying at the same table you are at, on Tuesday. He said, quote, "The spill response has been pretty effective." And I strongly disagreed with him in that hearing on Tuesday.

I would like to know if you agree or disagree with his statement that the still response has been pretty effective.

Mr. HAYWARD. I think if any oil gets to the shore to impact the environment, that it is not possible to declare a spill response effective.

In many dimensions, we have launched, implemented a very, very significant effort. It has been recognized, as I said, by the Coast Guard as beyond anything anyone has ever achieved in the past. But——

Mr. SCALISE. And this disaster is beyond anything ever achieved—I just hope to give you that sense of urgency. We need the sense of urgency. We can't have days——

Mr. STUPAK. Time has expired.

Mr. SCALISE. Thank you, Mr. Chairman. I yield back.

Mr. STUPAK. There is nothing to yield.

Ms. DeGette for questions, please.

Ms. DEGETTE. Thank you, Mr. Chairman.

Mr. Hayward, you told both Mr. Dingell and Mr. Scalise that the conclusion BP reached was that there was a good cement job, there was no requirement to perform the cement bond log test, and you would look at whether that needed to be changed in the future.

So my question to you is, are you aware that Halliburton's chief safety officer, Tim Probert, told a Senate committee last month that a cement bond log test is, quote, "the only test that can really determine the actual effectiveness of the bond between the cement sheets, the formation, and the casing itself"?

Do you agree with that statement?

Mr. HAYWARD. I am aware of his testimony, and I——

Ms. DEGETTE. And do you agree with that testimony?

Mr. HAYWARD. I am not qualified to agree or disagree with that statement.

Ms. DEGETTE. Well, is your technical expert, Mr. Zanghi, who is here with you today, qualified to answer that question?

Mr. HAYWARD. I can ask him.

Ms. DEGETTE. Please.

Yes?

Mr. HAYWARD. Mr. Zanghi is not a cement bond expert.

Ms. DEGETTE. I am sorry, I can't hear you. Can you move the——

Mr. HAYWARD. Mr. Zanghi is not a cementing expert, but he is a drilling engineer. And he——

Ms. DEGETTE. He is a drilling engineer. And has he had experience with cementing as a drilling engineer?

Mr. HAYWARD. I am sure he has.

Ms. DEGETTE. OK. But yet he doesn't know whether this test is the only test that can determine the actual effectiveness?

Mr. HAYWARD. The fact is that the team on the rig concluded that they had three other mechanisms to determine that they had——

Ms. DEGETTE. What were those mechanisms?

Mr. HAYWARD. It was the volume that had been pumped——

Ms. DEGETTE. I am sorry?

Mr. HAYWARD. The volume of cement that had been pumped, which told they essentially where in the world the cement had gone; the returns to the surface—that is to say, the cement had return to the surface; and a pressure test that confirmed that there was ceiling.

Ms. DEGETTE. But also, as I mentioned in my first round of questioning, Mr. Hayward, the internal document, tab 6, page 9, which I had you refer to, said that, because of the long string approach, that you didn't do the other type of approach, "Cementing simulations indicate that it's unlikely to be a successful cement job."

So was that taken into account, when it was determined that the cement was likely to succeed?

Mr. HAYWARD. I clearly can't know that because I wasn't there, but one would——

Ms. DEGETTE. Yes. OK. I——

Mr. HAYWARD [continuing]. Assume that the team on the rig——

Ms. DEGETTE. I am sorry?

Mr. HAYWARD. I would assume that the team on the rig looked at the data and determined that they had achieved a successful cement job.

Ms. DEGETTE. But, now, the team on the scene sent the test crew away before the pressure testing was done. So how would they have known that the cement was going to hold before they even did the pressure testing?

Mr. HAYWARD. I can't answer that question.

Ms. DEGETTE. Would you mind supplementing your testimony to let us now how they would have known that?

Mr. HAYWARD. I can't interpret what the people on the rig were thinking at the time the decision was made.

Ms. DEGETTE. But you could ask them and have them tell us. Would you do that, Mr. Hayward?

Mr. HAYWARD. We can, certainly, as part of the investigation, do that.

Ms. DEGETTE. Thank you very much.

Now, I want to ask you, because previously I asked you how many deepwater wells that BP had—or I asked you if you had knowledge of this well, and you said no. How many deepwater wells has BP drilled since you were CEO of the company, in the last 3 or so years?

Mr. HAYWARD. I don't know the precise number. It is probably on the order of 25 or 30 a year.

Ms. DEGETTE. You might be surprised to know, of the deepwater wells, that it is a far fewer number than that. But you don't know the exact number, correct?

Mr. HAYWARD. I don't know the exact number.

Ms. DEGETTE. OK.

I want to just ask you one last question. We have been hearing a lot from people, from health care workers and from public health folks, about the potential health consequences.

We have been talking a lot today about the economic losses and this fund to reimburse people for economic losses.

I want to ask you, will BP also commit to paying for the long-term health care costs incurred by workers and residents of the gulf as a result of this spill?

Mr. HAYWARD. We have created a fund of $20 billion to cover the claims resulting from——

Ms. DEGETTE. Let me ask you again. Let me just ask you again. I know there is the fund, and we commend you, and we are glad you did that.

But as part of the reimbursement, is BP committed to reimbursing the workers and the residents of the gulf for their long-term health care costs incurred as a result of this spill? Yes or no?

Mr. HAYWARD. If the independent adjudicator determines that those are valid claims, they will be paid.

Ms. DEGETTE. So the only way you intend to pay those claims is if it comes through this fund. Is that your testimony today?

Mr. HAYWARD. Twenty billion dollars is a very large sum of money to pay claims from.

Ms. DEGETTE. I am sorry?

Mr. HAYWARD. Twenty billion dollars is a very large fund to pay claims from.

Ms. DEGETTE. It is a large fund. And is it your view that part of what that fund will be used for is to pay people for their long-term health care costs incurred as a result of this spill?

Mr. HAYWARD. That will be a decision for the independent adjudicator.

Ms. DEGETTE. Well, if they asked you what you thought, would you say, yes, the health care costs should be paid for from this?

Mr. HAYWARD. I think that is something that I will leave him to decide. That is why we have appointed an independent adjudicator.

Ms. DEGETTE. So—see, this—if I may, Mr. Chairman?

Mr. STUPAK. Just another minute.

Ms. DEGETTE. Yes. If I may, Mr. Chairman, this is what is concerning members of this committee and others about BP's response here. Because you had executives who have sat here and said that

we will pay for all reasonable costs incurred. But then when we ask direct questions, for example, about health care costs, you evade the questions.

And all I want to know is, as part of the reimbursement of all reasonable costs, health care costs that are incurred by workers and residents of the gulf? It is not a difficult question, sir.

Mr. HAYWARD. I believe that if they are a direct consequence of the oil spill, then the independent adjudicator will find them to be claims that are legitimate under the fund.

Ms. DEGETTE. And would you support that, sir?

Mr. HAYWARD. I clearly would. But it is——

Ms. DEGETTE. Thank you very much. Thank you very much for your coming here.

Mr. HAYWARD [continuing]. It is for the independent adjudicator to make the decisions. That is what we are trying to create.

Ms. DEGETTE. Well, just——

Mr. STUPAK. OK, oK, oK. Members are going to have 10 minutes—excuse me—10 days to submit additional questions if they want, oK? Because, I mean, we could go here all night, and I am sure people would like to, but that concludes all of our——

Mr. BURGESS. Mr. Chairman, I do want to ask one last question on the letter that you and Mr. Waxman——

Mr. STUPAK. The June 14th letter, yes.

Mr. BURGESS [continuing]. The June 14th letter that, Mr. Hayward, you indicated that you were briefed on this letter from Mr. Waxman and Mr. Stupak; is that correct?

Mr. HAYWARD. That is correct.

Mr. BURGESS. Is there any part of this letter that you actually dispute? I know you wouldn't really answer Mr. Waxman's questions, but are there parts of this letter that you actually do not agree with?

Mr. HAYWARD. I think it is a statement of your conclusions at this time.

Mr. BURGESS. But do you dispute the facts as stated in the letter?

Mr. HAYWARD. I don't dispute any of the facts, not any of the facts. And as I have said all along, I would like to await drawing conclusions——

Mr. BURGESS. Yes, I understand.

Mr. HAYWARD [continuing]. Until all of the investigations are complete.

Mr. BURGESS. If there are facts that you dispute, you would provide those to us within this——

Mr. HAYWARD. I certainly will.

Mr. STUPAK. I am sorry, but I have to call this to an end, because then down on this side they are going to want more questions and I will want more questions, and we will be here until at least midnight, and we are not going to do that.

Mr. BURGESS. That is why we are the most important committee in Congress.

Mr. STUPAK. I agree we are the most important committee in Congress, but even important things must come to an end. And right now it is coming to an end.

Mr. Hayward, I want to thank you for being here today. You did come voluntarily, and we appreciate that.

However, I think it is fair to say that Members are frustrated because the answers we have heard time and time again are phrases like "I wasn't involved in that decision," "I don't know," "I can't recall," "we need to wait for the results of the investigation." And we had really hoped, by giving you information and the June 14th letter, you would be better prepared to answer our questions.

I think the evasiveness of your answers only serve to increase the frustration, not decrease the frustration, not just of Members of Congress but of that of the American people.

So, I will thank you for being here.

This is going to conclude our hearing. I want to thank all Members for participating.

The document binder is made part of the record.

And that concludes our hearing. This meeting of the subcommittee is adjourned.

[Whereupon, at 5:30 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

HENRY A. WAXMAN, CALIFORNIA
CHAIRMAN

JOHN D. DINGELL, MICHIGAN
CHAIRMAN EMERITUS
EDWARD J. MARKEY, MASSACHUSETTS
RICK BOUCHER, VIRGINIA
FRANK PALLONE, JR., NEW JERSEY
BART GORDON, TENNESSEE
BOBBY L. RUSH, ILLINOIS
ANNA G. ESHOO, CALIFORNIA
BART STUPAK, MICHIGAN
ELIOT L. ENGEL, NEW YORK
GENE GREEN, TEXAS
DIANA DEGETTE, COLORADO
VICE CHAIRMAN
LOIS CAPPS, CALIFORNIA
MIKE DOYLE, PENNSYLVANIA
JANE HARMAN, CALIFORNIA
JAN SCHAKOWSKY, ILLINOIS
CHARLES A. GONZALEZ, TEXAS
JAY INSLEE, WASHINGTON
TAMMY BALDWIN, WISCONSIN
MIKE ROSS, ARKANSAS
ANTHONY D. WEINER, NEW YORK
JIM MATHESON, UTAH
G.K. BUTTERFIELD, NORTH CAROLINA
CHARLIE MELANCON, LOUISIANA
JOHN BARROW, GEORGIA
BARON P. HILL, INDIANA
DORIS O. MATSUI, CALIFORNIA
DONNA CHRISTENSEN, VIRGIN ISLANDS
KATHY CASTOR, FLORIDA
JOHN SARBANES, MARYLAND
CHRISTOPHER MURPHY, CONNECTICUT
ZACHARY T. SPACE, OHIO
JERRY MCNERNEY, CALIFORNIA
BETTY SUTTON, OHIO
BRUCE BRALEY, IOWA
PETER WELCH, VERMONT

ONE HUNDRED ELEVENTH CONGRESS

Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

2125 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515–6115

MAJORITY (202) 225-2927
FACSIMILE (202) 225-2525
MINORITY (202) 225-3641

energycommerce.house.gov

JOE BARTON, TEXAS
RANKING MEMBER

ROY BLUNT, MISSOURI
DEPUTY RANKING MEMBER
RALPH M. HALL, TEXAS
FRED UPTON, MICHIGAN
CLIFF STEARNS, FLORIDA
ED WHITFIELD, KENTUCKY
JOHN SHIMKUS, ILLINOIS
JOHN B. SHADEGG, ARIZONA
STEVE BUYER, INDIANA
GEORGE RADANOVICH, CALIFORNIA
JOSEPH R. PITTS, PENNSYLVANIA
MARY BONO MACK, CALIFORNIA
LEE TERRY, NEBRASKA
MIKE ROGERS, MICHIGAN
SUE WILKINS MYRICK, NORTH CAROLINA
JOHN SULLIVAN, OKLAHOMA
TIM MURPHY, PENNSYLVANIA
MICHAEL C. BURGESS, TEXAS
MARSHA BLACKBURN, TENNESSEE
PHIL GINGREY, GEORGIA
STEVE SCALISE, LOUISIANA
PARKER GRIFFITH, ALABAMA
ROBERT E. LATTA, OHIO

Dear Colleague:

I am pleased that the Energy and Commerce Committee minority has been allowed to sponsor Congressman Scalise's site visit to the Gulf of Mexico. As part of this visit my committee staff has prepared the following background information for your review, which I hope you will find useful. Please feel free to contact me or the Republican Energy and Commerce Committee staff should you have any questions.

Sincerely,

Joe Barton

Joe Barton
Ranking Member

House Energy and Commerce Committee
Republicans

U.S. Rep. Joe Barton, R-Texas
Ranking Member
http://republicans.energycommerce.house.gov

Information on the Deepwater Horizon Oil Spill in the Gulf of Mexico

OIL & GAS INDUSTRY OFFSHORE DRILLING RECORD

- Offshore oil and natural gas development has been safely conducted for more than 60 years. During that time, more than 42,000 wells have been drilled in the Gulf, including more than 2,000 deepwater wells, or wells drilled in water depths of 1,000 feet or more.

- According to the API, in the past 60 years, America's oil and natural gas industry has produced more than 16.3 billion barrels of oil in the Gulf of Mexico –with just 0.00123% spilled.

- Industry-wide, moreover, a 2009 API-commissioned report found that annual spillage from offshore operations decreased by 87% from the 1970s.

- According to data from the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE), formerly Minerals Management Service, safety has also significantly improved over the past decades; between 1996 and 2008 the safety record improved by 80%.

- For combined operations on the U.S. Outer Continental Shelf, lost-workday incident rates fell from a 3.39 annual rate in 1996 to a 0.64 annual rate in 2008.

- The strong environmental performance of offshore production facilities was demonstrated in 2005 during Hurricanes Katrina and Rita when the industry was able to shut down production of more than 3,000 offshore platforms throughout the Gulf – with no loss of life or significant offshore spills.

DEEPWATER HORIZON UNIFIED COMMAND

- The United States Coast Guard runs the incident command, and U.S. Rear Adm. James A Watson is in charge on the scene in Louisiana. He answers to Admiral Thad Allen, the National Incident Commander, who answers to the President.

- The federal government has the majority vote in the unified command overseeing procedures to stop the leak and to do the clean up.

DEEPWATER HORIZON OIL SPILL INVESTIGATIONS

- Our primary objectives at this stage are to stop the leak, contain and clean up the spill, and understand the cause of the blowout so we can ensure proper measures will be in place to prevent future incidents.

- There must be an objective, comprehensive investigation to find out the facts and enable Congress and the industry to take appropriate corrective measures and to determine whether new standards, procedures, or safeguards are necessary.

- We must understand whether there was proper oversight and appropriate advanced planning by the federal government, primarily the BOEMRE, the EPA, and the Coast Guard to prepare for oil spills.

- We need to act reasonably to ensure safe expansion of future production and responsibly and not react hastily. Over-reaction risks additional economic hardship for the Gulf Coast and threatens the healthy economic growth of a nation that requires a safe, secure energy supply.

- From the information learned in the investigation, the Majority and Minority staff of the Energy and Commerce Committee are in the process of negotiating a bill to be considered prior to the August recess to provide BOP standards and safety requirements for certain high risk wells.

O&I Deepwater Horizon Investigation:

Status Update

- April 2010: The Committee on Energy and Commerce and its Subcommittee on Oversight and Investigations initiated an investigation into the circumstances surrounding the Deepwater Horizon rig explosion and oil spill. The Committee requested documents from BP, Transocean, Halliburton, and Cameron.

- May 4, 2010: Ranking Member Barton and O&I Subcommittee Ranking Member Burgess requested Chairman Waxman and Subcommittee Chairman Stupak to invite the testimony of the Secretary of the Interior at the upcoming hearing and request to include review of federal actions as an integral part of the investigation. Interior Secretary Salazar will be appearing before the O&I Subcommittee later this month.

- May 7, 2010: The Committee participated in a Bipartisan Codel to the Gulf Coast to review the spill for which Ranking Member Barton, O&I Subcommittee Ranking Member Burgess, and Full Committee Member Scalise were in attendance.

- May 12, 2010: The O&I Subcommittee held a hearing entitled "Inquiry into the Deepwater Horizon Gulf Coast Oil Spill." The Subcommittee questioned the CEOs of BP America, Transocean, Halliburton, and Cameron.

- May 25, 2010: The Committee released details regarding BP's Internal Incident Investigation.

- May 30, 2010: The Committee released a memo and documents concerning issues raised in recent news media accounts related to the Deepwater Horizon Spill.

- June 7, 2010: The O&I Subcommittee held a field hearing in Chalmette, Louisiana entitled "Local Impact of the Deepwater Horizon Oil Spill." Subcommittee Ranking Member Burgess as well as full Committee Member Scalise were in attendance. The Subcommittee received testimony from Natalie Roshto and Courtney Kemp, widows of employees on the Deepwater Horizon at the time of the explosion. The Subcommittee also heard from the Vice President of the Louisiana Shrimp Association, the Vice President for the Dauphin Island Chamber of Commerce, a local commercial fisherman, the President of Subra Company, and the President of the Institute for Marine Mammal Studies.

- June 8, 2010: Committee Chairman Waxman and O&I Subcommittee Chairman Stupak requested the U.S. Chemical Safety Board to conduct an investigation into the causes of the explosion on the Deepwater Horizon rig.

- June 14, 2010: Committee Chairmen Waxman and O&I Subcommittee Chairman Stupak sent a letter to Tony Hayward, Chief Executive Officer of BP, prior to his testifying before the Committee, detailing the questions the investigation has raised about BP decisions leading up to the Deepwater Horizon explosion.

- June 17, 2010: Hearing with BP CEO Tony Hayward

- June 22, 2010: Proposed hearing with Oil Spill response companies postponed.

- June 25, 2010: MMS production of documents requested by the Committee and Subcommittee on O&I leadership.

- June 27, 2010: Hearing with Secretary Salazar postponed until after the July 4th recess.

- To Date:

    - The O&I Subcommittee has reviewed more than 110,000 pages of documents including productions from BP, Transocean, Halliburton, Cameron, Schlumberger, Anadarko, as well as a number of oil spill response companies involved in recovery efforts.

    - The O&I Subcommittee has and continues to conduct numerous informational briefings and interviews from various stakeholders and experts regarding the Deepwater Horizon explosion.

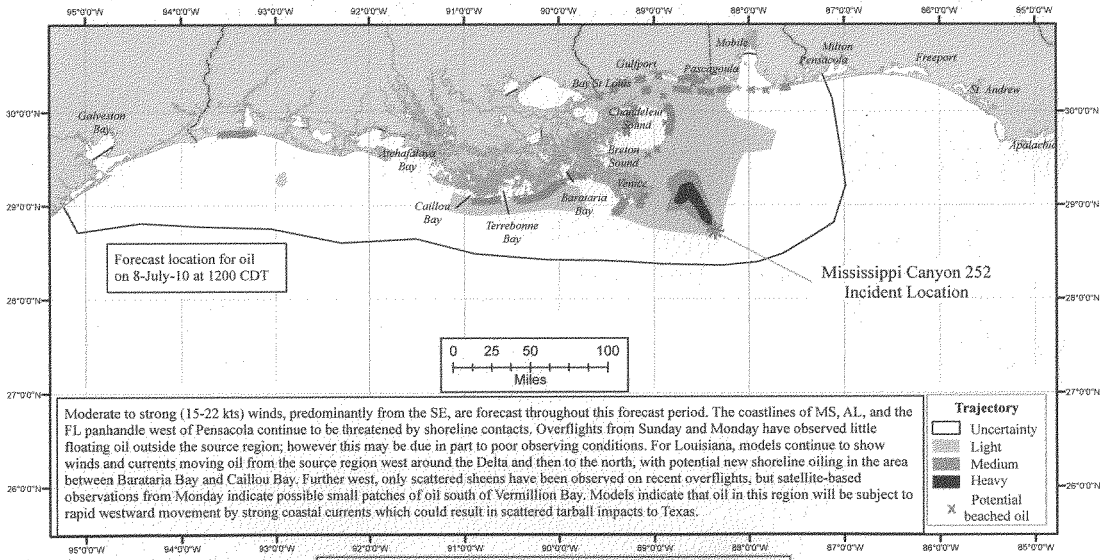
    - The O&I Subcommittee received documents from the Minerals Management Service. Staff is reviewing to determine the critical role this agency had overseeing Deepwater Horizon drilling operations.

Nearshore
Surface Oil Forecast
Deepwater Horizon MC252

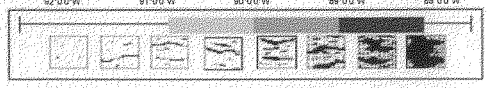
NOAA/NOS/OR&R **Nearshore**

Estimate for: 1200 CDT, Thursday, 7/08/10
Date Prepared: 2100 CDT, Monday, 7/05/10

This forecast is based on the NWS spot forecast from Monday, July 5 PM. Currents were obtained from several models (NOAA Gulf of Mexico, West Florida Shelf/USF, TGLO/TAMU, NAVO/NRL) and HFR measurements. The model was initialized from Monday satellite imagery analysis (NOAA/NESDIS) and Monday overflights. The leading edge may contain tarballs that are not readily observable from the imagery (hence not included in the model initialization). Oil near bay inlets could be brought into that bay by local tidal currents.



Moderate to strong (15-22 kts) winds, predominantly from the SE, are forecast throughout this forecast period. The coastlines of MS, AL, and the FL panhandle west of Pensacola continue to be threatened by shoreline contacts. Overflights from Sunday and Monday have observed little floating oil outside the source region; however this may be due in part to poor observing conditions. For Louisiana, models continue to show winds and currents moving oil from the source region west around the Delta and then to the north, with potential new shoreline oiling in the area between Barataria Bay and Caillou Bay. Further west, only scattered sheens have been observed on recent overflights, but satellite-based observations from Monday indicate possible small patches of oil south of Vermillion Bay. Models indicate that oil in this region will be subject to rapid westward movement by strong coastal currents which could result in scattered tarball impacts to Texas.



this scale bar shows the meaning of the distribution terms at the current time

Next Forecast:
July 6th PM

Deepwater Horizon BP Oil Spill: Modeling the Potential Long Term Movement of Oil

Objective

The National Oceanic and Atmospheric Administration (NOAA) has used computer models to estimate the potential threats to U.S. coastlines that might result if oil spilling from the Deepwater Horizon site continues until a relief well successfully stops the flow. Although it is impossible to predict precisely where surface oil will go in the coming months, it is possible to analyze where surface oil is most likely to go by (a) using historical wind and ocean current records; and (b) accounting for both natural processes of "weathering" and human intervention to recover and remove the oil. This report will be updated as more information becomes available.

Major Findings and Implications

The details of the study are outlined in the following pages, but the major findings are represented in the figures on the next page and include:

- The coastlines with the highest probability (81% – 100%) for impact -- from the Mississippi River Delta to the panhandle of Florida– are already receiving oil.
- Along U.S. Gulf of Mexico shorelines, the oil is more likely to move east than west, with the south coast of Texas showing a relatively low probability (less than 1%) for impact.
- Much of the west coast of Florida has a low probability (1% – 20%) for impact, but the Florida Keys, Miami and Fort Lauderdale areas have a greater probability (61% – 80%) due to the potential influence of the Loop Current.
- A projected threat to the shoreline does not necessarily mean that oil will come ashore. It means that oil or streamers or tar balls are likely to be in the general vicinity (within 20 miles of the coast). Winds and currents will have to move the oil or tar balls onto the shore. Booms and other countermeasures would be used to mitigate the potential coastal contact once oil is in the area.
- The longer it takes oil to travel, the more it will degrade, disperse, lose toxicity, and break into streamers and tar balls. For example, any oil that enters the Loop Current will take at least 8 to 12 days to reach the Florida Straits, but could take much longer. Over that time, the oil will degrade and disperse, and any shoreline impacts to Keys, southeast Florida or beyond would be in the form of scattered tar balls, not a large surface slick of oil.
- As the Gulf Stream moves northeast and angles away from the continental US, there is an increasingly lower probability of shoreline impacts from eastern central Florida up the eastern seaboard. If oil does reach these areas, it will be in the form of tar balls or highly weathered streamers after traveling a thousand miles or more through the ocean.
- Implications. The findings cover potential impacts based on a scenario that assumes a significant continuing spill. Some of these impacts may be weeks or months away or may not

materialize. In light of these uncertainties and extended timeframes, NOAA will continue to work with the U.S. Coast Guard and other members of the response team to track the movement of oil, including monitoring the Loop Current, producing 72-hour projections of oil movement and updating these longer-term models, to inform states, communities, businesses, consumers, and others. Updated information can be found at: http://response.restoration.noaa.gov/deepwaterhorizon/longterm_outlook

The two graphics below depict the composite results of 500 individual scenarios or runs of the model. The model assumes that oil is released at an average rate of 33,000 barrels per day for 90 days. The model predicts the location of oil after 120 days from the start. Figure 1 shows the probability of shoreline threats that resulted in enough oil to cause a dull sheen within 20 miles of shore. However, a projected threat to the shoreline does not necessarily mean that oil will come ashore. Figure 2 shows the percentage of spill model scenarios that resulted in enough oil to cause a dull sheen in a given 20 by 20 mile grid.

Figure 1: Probability of Shoreline Threat, as of Day 120, for a 33,000 barrels/day release for 90 days

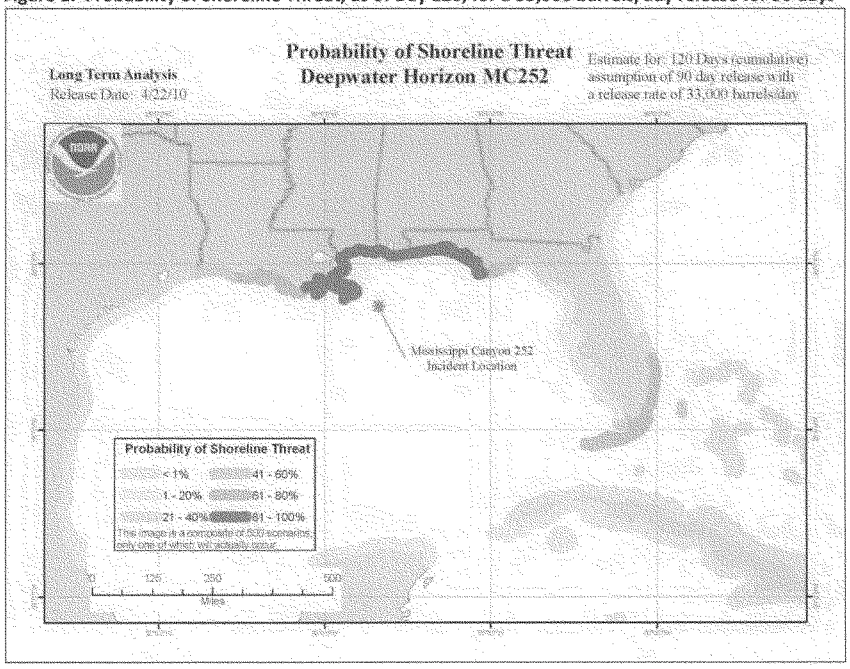
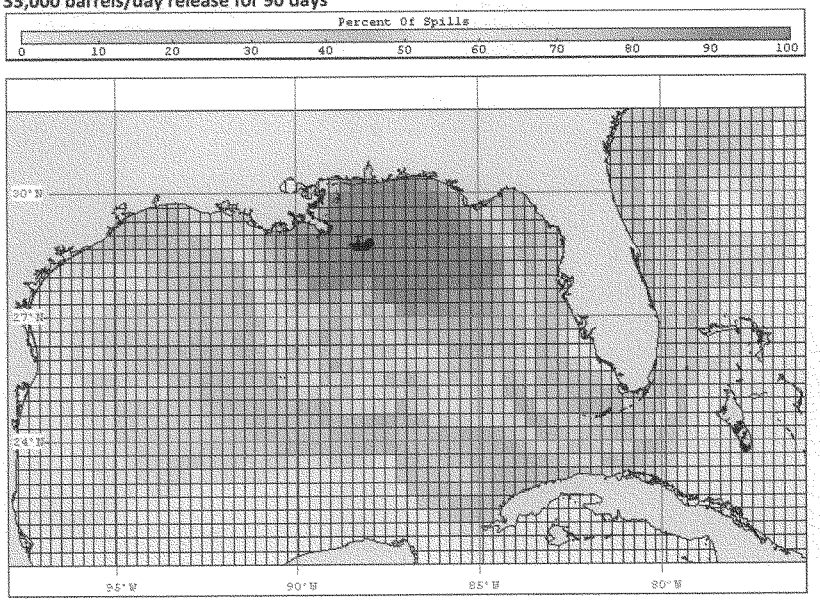


Figure 2: Percent of Spill Scenarios that would cause a dull sheen in a given grid as of Day 120 for a 33,000 barrels/day release for 90 days



Project Overview

The amount of oil being released by the Deepwater Horizon well has triggered widespread concern. Reports about the Loop Current, which could carry oil from the Gulf of Mexico around the tip of Florida, have expanded the geographic scope of interest. Responders across the Gulf and on the East Coast have been asking whether they should be preparing for the arrival of Deepwater Horizon oil. The public wants to understand the possible geographic scope of the environmental and economic impacts of the spill. Although there are limits to forecasting future impacts, this analysis provides some insights on the likelihood of various outcomes.

Beyond the continuing intensive efforts to contain, recover, and remove the oil, the Federal government will closely monitor the movement of the oil over time, particularly focusing on the relationship between the Loop Current and the oil slick to help sharpen the outlook for impact to South Florida and neighboring Caribbean nations. This information will give coastal states and communities warning about potential threats of shoreline impacts to ensure that adequate preparedness measures can be taken.

At present, the Loop Current does not appear to be a major source of transport of Deepwater Horizon oil to the Florida Straits or Gulf Stream. The top of the Loop Current has pinched off as an eddy that is spinning clockwise in the Gulf, recirculating within the Gulf any oil that it has entrained. NOAA will continue to follow the eddy and the Loop Current closely.

To perform the analysis of potential for long-term impact to shorelines, NOAA ran the computer model using 15 years of data on past winds and ocean currents in the Gulf of Mexico. NOAA ran this model five hundred times to reflect the uncertainty in forecasting future winds and ocean currents; each model run used a randomly selected subset of the 15-year data set. Each run of the computer model predicts oil movement over a 120-day period. It is important to note that although modeling is useful in characterizing what is more or less likely to happen, it cannot provide precise predictions about oil movement. The modeling is based on a 120 day projection starting from day one of the spill. It does not take the current footprint of the spill—which, approximately 70 days after the start of the spill, has not entered the Loop Current—as the starting point.

A peer review of the data and NOAA method was conducted by experts from the U.S. Navy, Minerals Management Service, Texas A&M, Texas General Land Office, Scripps Institution of Oceanography, and BP. The final modeling analysis reflects their technical input.

Assumptions and Caveats

In running this computer model, NOAA used the following parameters and assumptions:

- One key assumption in modeling the spill is the flow rate of oil into the Gulf of Mexico. The scenario assumes two different rates (one prior to the cutting of the riser pipe and a second one after the cutting of the riser pipe), then it subtracts out the oil removed from the environment, e.g., by skimming and burning. A gross flow rate of 40,000 barrels per day is used from the sinking of the Deepwater Horizon on April 22 until the cutting of the riser pipe on June 3. This number represents the upper bound of the estimate developed by the National Incident Command Flow Rate Technical Group (FRTG). After the cutting of the riser pipe, the model assumes that the gross flow rate increases to 60,000 barrels per day, again at the upper limit of the range provided by the FRTG (the lower bound is 35,000 barrels/day). These gross flow rates are then adjusted to account for the various mitigation efforts – skimming, oil burning, and subsurface oil collection – to calculate a *net* flow of 33,000 barrels per day for 90 days . The net flow rate reflects an average of 7,000 barrels per day for oil burning and skimming throughout the 90-day period, and an average of 20,000 barrels per day for subsurface containment through the top hat system after it was put in place on June 5. These adjustments are averaged over the 90 days of flow which reflects the approximate three-month window necessary for a relief well to be drilled. The model does not account for the use of dispersant in reducing the overall volume of surface oil.

- The estimated net flow of 33,000 barrels per day was used as a conservative but reasonable estimate that may overstate coastal risk somewhat. Other reasonable scenarios were examined that involved different gross flow rates and benefits from mitigation efforts, but the overall pattern of shoreline threat was not appreciably changed, so the 33,000 barrel per day scenario was selected for presentation. For example, sub-surface containment has exceeded 20,000 barrels per day for short time periods, and the sub-surface capacity to capture more than 50,000 barrels per day is expected to be operational by the beginning of July. The efficacy of skimming and burning operations varies with the weather, so calm weather may increase the daily removal rate through these mitigation measures, while rough weather may decrease the daily removal rate. The risk that a hurricane may require the relocation of surface vessels participating in the subsurface collection of oil, however, could result in a higher rate of flow from the well for some period of time. Finally, uncertainty about the

timing of completing the relief well obviously affects the duration of the spill. As better information becomes available, updated analyses will be posted at the web link cited at the end of this fact sheet.

- The model assumes that the "weathering" of the oil – the process by which oil naturally breaks down and changes in the environment – occurs in a way that is typical of oils similar to the Deepwater Horizon oil. The longer it takes oil to travel, the more it will degrade, disperse, lose toxicity, and break into streamers and tar balls. Again, the model does not account for the use of dispersants.

- The model considers oil a threat to the shoreline if there is enough oil to cause a dull sheen within 20 miles from the coast. A dull sheen was used as the threshold because that is enough oil to be toxic to some organisms in the water column and potentially require the closure of fisheries. Anything less than a dull sheen, the model does not consider to be a threat to the shoreline.

- A threat to the shoreline does not necessarily mean that oil will come ashore. Winds and currents will have to move the oil or tar balls onto the shore. Booms and other countermeasures would be used to mitigate the potential coastal contact. Therefore, the model may over-estimate the degree of potential shoreline threats from the spill.

Interpreting the Analysis

The probability map shown is a composite of the 500 individual scenarios for a net release of 33,000 barrels per day for 90 days. The colors indicate the percentage of the scenarios that resulted in enough oil to cause a dull sheen within 20 miles of shore or the 20 by 20 mile grid over a 120-day period. Main findings are summarized on page one.

There are several important factors to remember when interpreting the results:

1. The probability maps display the cumulative outcome of 500 individual scenarios. For example, if 250 of the 500 scenarios displayed a shoreline threat for a particular coastal area, the probability for shoreline threats at that area would be 50%. However, it is important to understand that only one scenario will actually occur. In other words, not all the areas with probabilities for shoreline threats will actually be affected. The winds, currents, flow rate, and mitigation efforts that actually occur during the release period will determine oil movement.

2. This model considers surface oil only. The longer it takes oil to travel, the more it will degrade, disperse, lose toxicity, and break into streamers and tar balls. For example, any oil that enters the Loop Current will take at least 8 – 12 days to reach the Florida Straits, but could take much longer. Over that time, the oil will degrade and disperse, and any shoreline impacts to southeast Florida or beyond would be in the form of scattered tar balls, not a large surface slick of oil.

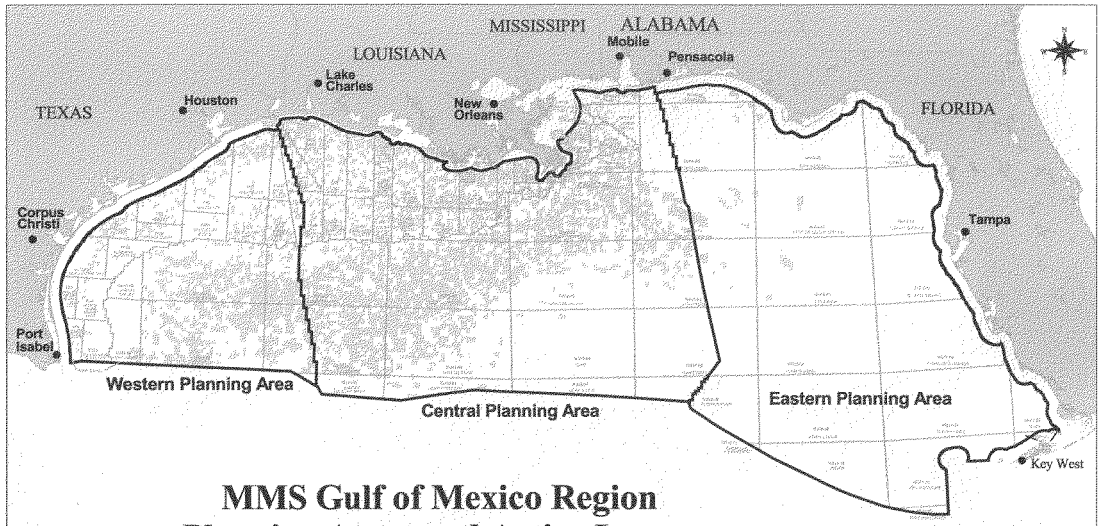
3. NOAA is closely monitoring the movement of oil from the Deepwater Horizon spill through aerial and satellite observations. NOAA is also providing daily forecasts to predict where the oil is going to go within the next 72 hours. Although the Loop Current is not presently a significant source of transport of oil to the Florida Straits, should a significant amount of surface oil enter the Loop Current and begin to move toward the Florida Straits and eastern

seaboard, NOAA will be able to see it, predict the movement, and help guide preparedness, response and cleanup efforts.

4. Oil movement could continue beyond the 120-day time frame used in the model runs.

5. Unlike the 72-hour projections reported daily by NOAA, the long-term model reported here does not initiate with the current footprint of the oil spill as the starting point – it initiates with a release from the source on Day 1. To date, about 70 days after the start of the spill, a significant amount of oil has not entered the Loop Current because of the specific location and configuration of the currents, though in some of the modeling runs, oil is projected to have done so. In that key respect, conditions thus far have been more favorable in reality than some of the 500 model runs generated would represent.

NOAA will continue to revise this model as new data are gathered. Updated scenarios and more information about the model can be found at:
http://response.restoration.noaa.gov/deepwaterhorizon/longterm_outlook



MMS Gulf of Mexico Region
Planning Areas and Active Leases
January 22, 2010

Planning Area	Total Blocks	Total Acres	Number of Leases	Acres Leased
Westen Planning Area	5,240	28,576,583	1,651	9,269,148
Central Planning Area	12,409	66,452,086	4,863	25,611,957
Eastern Planning Area	11,526	64,556,650	122	659,264
Totals	29,175	159,585,319	6,636	35,540,369
CPA, EPA Shared Blocks	(86)		(9)	
Totals	29,089	159,585,319	6,627	35,540,369

— Planning Area Boundary
Active Lease

Note:
CPA and EPA contain 86 shared blocks of which 9 are leased. These blocks are given both a CPA and EPA designation in the data which accounts for a higher block total.

MAU GOM PA 1/22/2010

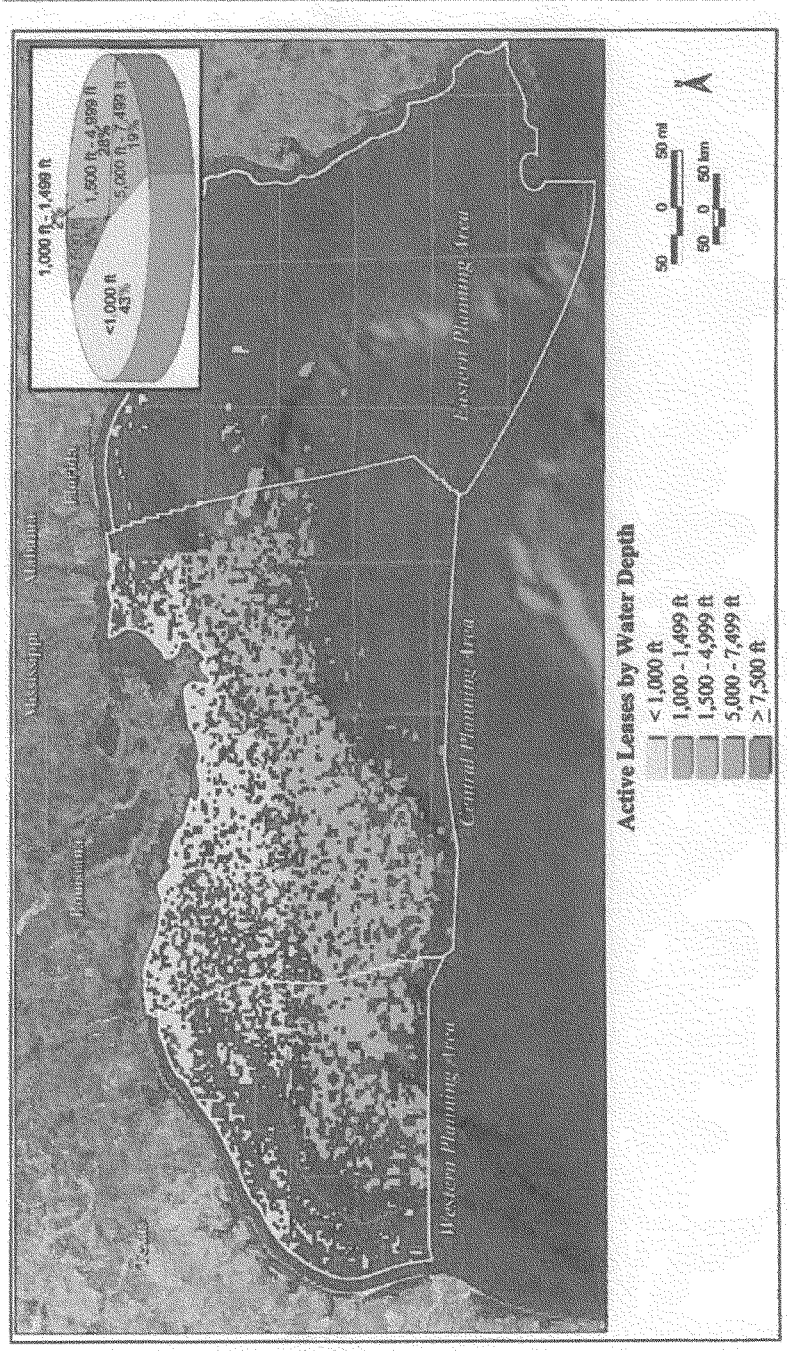


Figure 7. Active leases by water depth.

bp

Update on Gulf of Mexico Oil Spill - 05 July

Release date: 05 July 2010
BP today provided an update on developments in the response to the MC252 oil well incident in the Gulf of Mexico.

Subsea Source Control and Containment

Two containment systems continue to collect oil and gas flowing from the Deepwater Horizon's failed blow-out preventer (BOP) and transport them to vessels on the surface.

The lower marine riser package (LMRP) containment cap, installed on June 3, takes oil and gas to the Discoverer Enterprise where oil is collected and gas flared. The second system, which began operations on June 16, takes oil and gas to the Q4000 vessel on the surface where both oil and gas are flared.

On July 3, a total of approximately 25,198 barrels of oil were collected or flared by the two systems and 57.0 million cubic feet of gas were flared. Specifically, the LMRP containment system connected to the Discoverer Enterprise collected 17,022 barrels of oil, and the Q4000 flared an additional 8,176 barrels of oil. To date, the total volume of oil collected or flared by the containment systems is approximately 585,400 barrels. Information on the volumes of oil and gas that are collected or flared is updated twice daily on BP's website, www.bp.com.

Preparations continue for the next step in containment operations. Work on the first floating riser containment system planned to be connected to the Helix Producer was delayed by heightened sea states caused by Hurricane Alex as it passed through the Gulf of Mexico. The floating riser system is designed to allow more rapid disconnection and reconnection of the system, reducing the time that collection may be impacted in the case of, for example, inclement weather. It is currently anticipated that this first floating riser system will be available to begin first operations towards the end of the week.
Plans also are being developed for additional containment capacity and flexibility. These projects are currently anticipated to begin operations around mid- late July.

The LMRP containment cap system, the Q4000 system, and the planned additional containment systems have not been deployed at these depths or under these conditions, and their efficiency and ability to contain or flare the oil and gas cannot be assured.

Work on the first relief well, which started May 2, continues. The well reached a depth of 17,725 feet on July 4 and a sixth 'ranging' run was completed. The second relief well, which started May 16, has now reached a measured depth of 13,871 feet. Both wells are still estimated to take approximately three months to complete from commencement of drilling.

Surface Spill Response and Containment

Work continues to collect and disperse oil that has reached the surface of the sea, to protect the shoreline of the Gulf of Mexico, and to collect and clean up any oil that has reached shore.

Approximately 44,500 personnel, more than 6,563 vessels and some 113 aircraft are now engaged in the response effort.

Operations to skim oil from the surface of the water were temporarily placed on hold for approximately three days because of the effects of Hurricane Alex. To date, these operations have recovered, in total, approximately 673,497 barrels (23.5 million gallons) of oily liquid. In addition, a total of 275 controlled burns have been carried out to date, removing an estimated 238,000 barrels of oil from the sea's surface.

The total length of containment boom deployed as part of efforts to prevent oil from reaching the coast is now almost 2.9 million feet (550 miles).

Additional information

To date, almost 95,000 claims have been submitted and more than 47,000 payments have been made, totalling almost $147 million.

The cost of the response to date amounts to approximately $3.12 billion, including the cost of the spill response, containment, relief well drilling, grants to the Gulf states, claims paid, and federal costs. On June 16, BP announced an agreed package of measures, including the creation of a $20 billion escrow account to satisfy certain obligations arising from the oil and gas spill. It is too early to quantify other potential costs and liabilities associated with the incident.
BP Press Office London: +44 20 7496 4076
BP Press office, US: +1 281 366 0265
www.bp.com/gulfofmexicoresponse

THE SECRETARY OF THE INTERIOR
WASHINGTON

ORDER NO. 3299

Subject: Establishment of the Bureau of Ocean Energy Management, the Bureau of Safety and Environmental Enforcement, and the Office of Natural Resources Revenue.

Sec. 1 **Purpose**. The purpose of this Order is to separate and reassign the responsibilities that had been conducted by the Minerals Management Service into new management structures that will improve the management, oversight, and accountability of activities on the Outer Continental Shelf; ensure a fair return to the taxpayer from royalty and revenue collection and disbursement activities; and provide independent safety and environmental oversight and enforcement of offshore activities.

Sec. 2 **Authority**. This Order is issued in accordance with the authority provided by Section 2 of the Reorganization Plan No. 3 of 1950 (64 Stat. 1262).

Sec. 3 **Bureau of Ocean Energy Management**. Through this Order, and in accordance with the schedule set forth in Section 9, a Bureau of Ocean Energy Management will be established in the Department. The Bureau of Ocean Energy Management will be led by a Director, and it will be under the supervision of the Assistant Secretary – Land and Minerals Management. The Bureau of Ocean Energy Management will exercise the conventional (e.g., oil and gas) and renewable energy-related management functions of the Minerals Management Service not otherwise transferred pursuant to this Order including, but not limited to, activities involving resource evaluation, planning, and leasing.

Sec. 4 **Bureau of Safety and Environmental Enforcement**. Through this Order, and in accordance with the schedule set forth in Section 9, a Bureau of Safety and Environmental Enforcement will be established in the Department. The Bureau of Safety and Environmental Enforcement will be led by a Director, and it will be under the supervision of the Assistant Secretary – Land and Minerals Management. The safety and environmental enforcement functions of the Minerals Management Service including, but not limited to, the authority to inspect, investigate, summon witnesses and produce evidence, levy penalties, cancel or suspend activities, and oversee safety, response, and removal preparedness will be exercised by the Bureau of Safety and Environmental Enforcement.

Sec. 5 **Office of Natural Resources Revenue**. Through this Order, and in accordance with the schedule set forth in Section 9, the Office of Natural Resources Revenue will be established in the Department. The Office of Natural Resources Revenue will be led by a Director and it will be under the supervision of the Assistant Secretary – Policy, Management and Budget. The royalty and revenue management functions of the Minerals Management Service including, but not limited to, royalty and revenue collection, distribution, auditing and compliance,

investigation and enforcement, and asset management for both onshore and offshore activities, are hereby transferred to the Office of Natural Resources Revenue.

Sec. 6 **Compliance with Safety, Environmental, and Conservation Laws.** The Assistant Secretary – Land and Minerals Management and the Assistant Secretary – Policy, Management and Budget will take appropriate steps to ensure that this reorganization will provide that agency decisions are made in compliance with all applicable safety, environmental, and conservation laws and regulations, and that all reviews and consultations are conducted in an independent, comprehensive, and scientifically-sound manner.

Sec. 7 **Administrative Provisions.** The Assistant Secretary – Land and Minerals Management and the Assistant Secretary – Policy, Management and Budget will take appropriate steps to effect the transfer of administrative and other functions, personnel, funds, and property to implement the provisions of this Order.

Sec. 8 **Revocation.** Through this Order, and in accordance with the schedule set forth in Section 9, the responsibilities of the Minerals Management Service are hereby separated and reassigned. Applicable provisions of Secretarial Order No. 3071, including all amendments, and Secretarial Order No. 3087, including all amendments, are hereby revoked in accordance with the terms set forth herein.

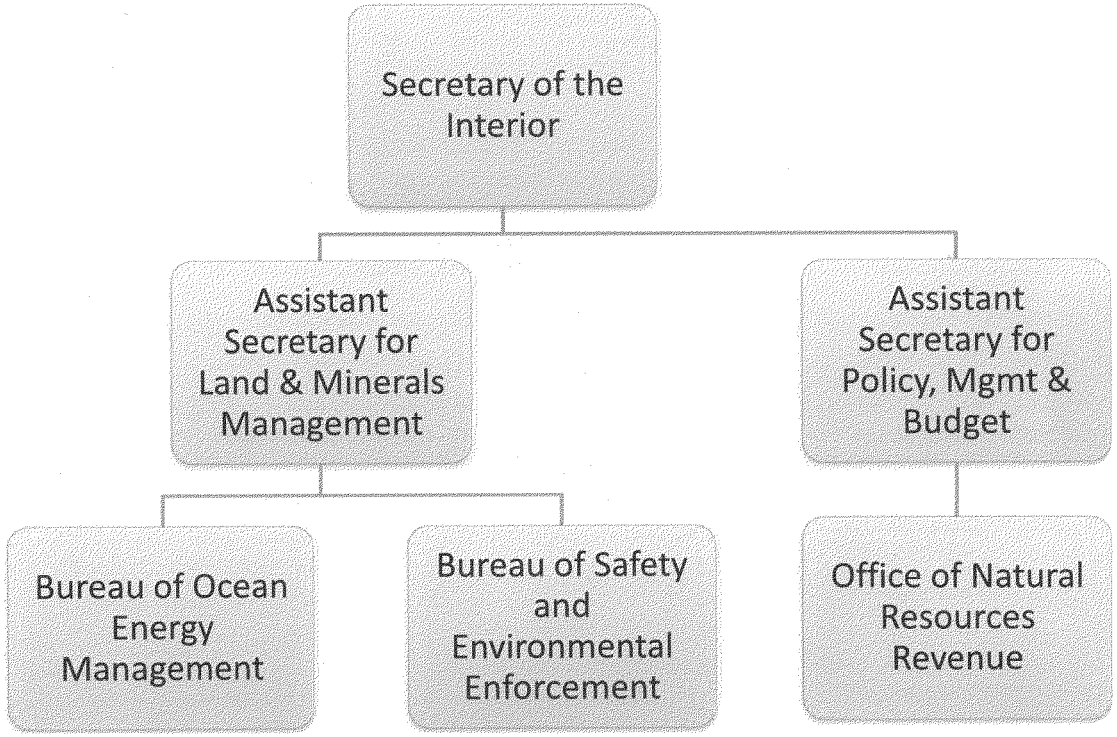
Sec. 9 **Effective Date.** The Assistant Secretary – Land and Minerals Management and the Assistant Secretary – Policy, Management and Budget will develop and report to the Secretary additional details regarding this reorganization. They will develop a schedule within thirty (30) days for the implementation of this Order in consultation with the White House Office of Management and Budget and applicable Congressional committees with responsibilities over these functions.

The provisions of this Order will remain in effect until publication of the Departmental Manual or until it is amended, superseded, or revoked, whichever occurs first.

Ken Salazar
Secretary of the Interior

Date: MAY 19 2010

Post-reorganization Structure



Bureau of Ocean Energy Management

Mission – Responsibly manage the sustainable development of the ocean's energy resources through renewable energy and offshore conventional energy

Office will perform the following functions:

- Conduct five year planning processes
- Process and approve leasing activities
- Develop new structure of expanding renewable energy opportunities

Bureau of Safety and Environmental Enforcement

Mission - Assure highest level of safety and environmental standards and performance in the production of all offshore energy activities

Office would incorporate the following functions:

- Creation of standards
- Inspections
- Enforcement

Office of Natural Resources Revenue

Mission: Assure full realization of value of public energy resources for the benefit of the American people

Existing revenue management function to be placed under the Assistant Secretary for Policy, Management and Budget (PMB)

- Eliminates conflicts associated with revenue collection being commonly managed with resource management and safety and environmental enforcement
- Greater operational alignment within PMB will support improved performance

Approach to Reform

- Objective is to remove potential conflicts and enhance Interior's ability to pursue each element of the MMS mission:
  - Operational safety ;
  - Environmental protection;
  - Full and efficient collection of all payments due; and
  - Responsible and sustainable management of offshore energy development
- Goal is to enhance Interior's performance and accountability through greater functional independence and oversight while maintaining an effective process

Gulf of Mexico OCS Oil & Gas Statistics

Current	State		Source
Oil Production	1.7	Millions Barrels / day	EIA (December 2009)
Gas Production	6.4	Bcf per day	EIA (December 2009)
Production Platforms	3,560	Installations	MMS (End 2009)
Drilling Rigs	51	Rigs	Baker Hughes (April 30, 2010)
Employment	35,000	Workers	Department of Interior News Release (April 30, 2010)
# Wells Drilled	235	wells (Total 2009)	API Quarterly Well Completion Report (Vol 25, #4, Jan 2010)

Historical Data

	Production Platforms				Annual Production		Average	# Wells Drilled			Spillage from	Spillage as Pct. of
				Active	Oil	Natural Gas	Active	Federal	State	1959-2009	Platforms 1969-2007	Oil Production
Year	Installations	Removals	Net change	Total	Million Bbl	Tcf	Rigs	Waters	Waters	Total	Bbls	%
Total 1947-2009	6,925	3,365	3,560	3,560	16,539	174.3				42,645	175,813	0.00123%
2009	26	206	(178)	3,560	561	2.4	44	201	34	235	-	-
2008	72	150	(78)	3,738	421	2.3	65	231	46	277	-	-
2007	82	157	(75)	3,816	458	2.8	72	451	69	520	109	0.00002%
2006	111	108	3	3,891	472	2.9	90	656	65	721	1,193	0.00025%
2005	100	124	(24)	3,888	467	3.2	94	717	70	787	7,963	0.00171%
2004	124	194	(70)	3,912	535	4.0	97	744	100	844	603	0.00011%
2003	121	169	(48)	3,982	561	4.4	108	477	88	565	761	0.00014%
2002	102	121	(19)	4,030	567	4.5	113	660	123	783	1,377	0.00024%
2001	161	109	52	4,049	558	5.1	153	1048	213	1,261	203	0.00004%
2000	146	142	4	3,997	523	5.0	140	717	143	860	262	0.00005%
1999	106	145	(39)	3,993	485	5.1	106	791	105	896	163	0.00003%
1998	148	76	72	4,032	444	5.0	123	870	165	1,035	105	0.00002%
1997	147	178	(31)	3,960	412	5.1	122	905	129	1,034	114	0.00003%
1996	153	120	33	3,991	369	5.1	108	602	126	728	226	0.00006%
1995	132	118	14	3,958	345	4.8	101	590	81	671	1,390	0.00040%
1994	176	125	51	3,944	314	4.8	102	709	110	819	729	0.00023%
1993	123	172	(49)	3,893	309	4.7	82	739	91	830	35	0.00001%
1992	89	105	(16)	3,942	305	4.6	52	457	66	523	13,006	0.00427%
1991	156	117	39	3,958	295	4.7	61	773	94	867	413	0.00014%
1990	174	108	66	3,919	275	4.9	108	1006	93	1,099	1,017	0.00037%
1989	197	94	103	3,853	281	4.6	105	843	87	930	406	0.00014%
1988	170	100	70	3,750	301	4.6	123	na	na	907	247	0.00008%
1987	116	23	93	3,680	328	4.5	95	na	na	644	123	0.00004%
1986	111	34	77	3,587	356	4.0	99	na	na	681	130	0.00004%
1985	215	55	160	3,510	350	4.1	206	na	na	986	871	0.00025%
1984	227	53	174	3,350	356	4.6	213	na	na	1,168	782	0.00022%
1983	173	38	135	3,176	320	4.1	199	na	na	1,018	3,225	0.00101%
1982	195	15	180	3,041	286	4.7	243	na	na	934	93	0.00003%
1981	169	24	145	2,861	263	4.9	256	na	na	910	245	0.00009%
1980	174	36	138	2,716	265	4.8	231	na	na	841	2,037	0.00077%
1979	175	35	140	2,578	283	4.7	207	na	na	915	5,168	0.00196%
1978	168	26	142	2,438	276	4.2	185	na	na	993	108	0.00004%
1977	112	17	95	2,296	284	3.8	167	na	na	1,149	165	0.00006%
1976	117	29	88	2,201	301	3.6	129	na	na	934	129	0.00004%
1975	102	36	66	2,113	310	3.4	106	na	na	859	116	0.00004%
1974	59	5	54	2,047	338	3.4	94	na	na	857	267	0.00008%
1973	96	1	95	1,993	366	3.3	84	na	na	986	10,289	0.00281%
1972	144	-	144	1,898	373	3.0	na	na	na	865	418	0.00011%
1971	103	-	103	1,754	376	2.7	na	na	na	867	736	0.00020%
1970	119	-	119	1,651	329	2.4	na	na	na	911	116,095	0.03568%
1969	113	-	113	1,532	282	2.0	na	na	na	949	2,500	0.00086%
1968	112	-	112	1,419	254	1.6	na	na	na	1,121	-	-
1967	134	-	134	1,307	210	1.3	na	na	na	989	-	-
1966	119	-	119	1,173	175	1.0	na	na	na	1,017	-	-
1965	130	-	130	1,054	135	0.7	na	na	na	997	-	-
1964	131	-	131	924	111	0.6	na	na	na	935	-	-
1963	91	-	91	793	96	0.6	na	na	na	739	-	-
1962	128	-	128	702	77	0.5	na	na	na	718	-	-
1961	109	-	109	574	56	0.3	na	na	na	546	-	-
1960	111	-	111	465	41	0.3	na	na	na	500	-	-
1959	85	-	85	354	30	0.2	na	na	na	444	-	-
1947-58	269	-	269	269	48	0.5	na	na	na	na	-	-

Sources: Platforms - MMS -Regional Quarterly Report.
Production - MMS and EIA.
Rigs - EIA and Baker Hughes
Wells - API Includes State and Federal - Total excludes wells drilled before 1959.828
Spillage - API, "Analysis of U.S. Oil Spillage," August 2009.
" - " = 0, na = " Data not available"

PRICEWATERHOUSECOOPERS

THE ECONOMIC IMPACTS OF THE OIL AND NATURAL GAS INDUSTRY ON THE U.S. ECONOMY: EMPLOYMENT, LABOR INCOME AND VALUE ADDED

Prepared for

American Petroleum Institute

September 8, 2009

National Economics & Statistics NES

THE ECONOMIC IMPACTS OF THE OIL AND NATURAL GAS INDUSTRY ON THE U.S. ECONOMY: EMPLOYMENT, LABOR INCOME AND VALUE ADDED

Executive Summary

The oil and natural gas industry, a vital link in the nation's energy supply, makes important contributions to the U.S. economy by providing an economical energy source for transportation and the production of other goods and services. The oil and natural gas industry currently supplies more than 60% of the nation's total energy demands and more than 99% of the fuel used by Americans in their cars and trucks[1], while 900 of the next 1000 U.S. power plants are projected to use natural gas.[2]

In addition to the important products made available by the oil and natural gas industry, the industry also makes significant economic contributions as an employer and purchaser of goods and services. The oil and natural gas industry is one of the largest employers in the country, employing millions of Americans in exploring, producing, processing, transporting, and marketing oil and natural gas. Millions of jobs in other industries are supported by the oil and natural gas industry's purchases of intermediate inputs and capital goods from other U.S. producers. These businesses include equipment suppliers, construction services, management services, food services, and many other types of support services. These supporting businesses, in turn, purchase goods and services, spurring additional economic activities. Further, employees and business owners make personal purchases out of the additional income that is generated by this process, sending more new demands rippling through the economy.

The purpose of this report is to quantify the contribution of the U.S. oil and natural gas industry to the U.S. national and state economies in terms of employment, labor income (including wages and salaries and benefits, as well as proprietors' income), and value added.[3] The *direct impact* is measured as the jobs, labor income, and value added within the oil and natural gas industry. The *indirect impact* is measured as the jobs, labor income, and value added occurring within other industries that provide goods and services to the oil and natural gas industry. The *induced impact* is measured as the jobs, labor income, and value added resulting from household spending of income earned either directly or indirectly from the oil and natural gas industry's spending. The combination of these three effects comprises the total contribution of the U.S. oil and natural gas industry. At the national level, this report quantifies both the industry's *operational impact* (due to purchases of intermediate inputs) and *capital investment impact* (due to purchases of new structures and equipment). The report does not address the economic effects of the use of oil and natural gas in the economy.

In 2007, the most recent year for which data are available, PricewaterhouseCoopers estimates that, combining the operational and capital investment impacts, the U.S. oil and natural gas industry's total employment contribution to the national economy amounted to 9.2 million full-time and part-time jobs, accounting for 5.2 percent of the total employment in the country (see **Table E-1**). The associated labor income,

---

[1] http://www.api.org/aboutoilgas/ and http://www.energy.gov/energysources/oil.htm
[2] http://www.energy.gov/energysources/naturalgas.htm
[3] Value added refers to the additional value created at a particular stage of production. It is a measure of the overall importance of an industry. Value added consists of: employee compensation, proprietors' income, income to capital owners from property, and indirect business taxes (i.e., those borne by consumers rather than producers).

including proprietors' income, was estimated to be $558 billion, or 6.3 percent of the national labor income total. The industry's total value-added contribution to the national economy was over $1 trillion, accounting for 7.5 percent of U.S. GDP in 2007.

Table E-1. Total Contribution of the Oil and Natural Gas Industry to the U.S. Economy, 2007

Item	Amount	Percent of U.S. Total
Operational Impact		
Employment*	7,818,437	4.4%
Labor Income ($ millions)**	477,249	5.4%
Value Added ($ millions)	915,370	6.6%
Capital Investment Impact		
Employment*	1,418,944	0.8%
Labor Income ($ millions)**	81,012	0.9%
Value Added ($ millions)	121,690	0.9%
Total Impacts		
Employment*	9,237,381	5.2%
Labor Income ($ millions)**	558,260	6.3%
Value Added ($ millions)	1,037,060	7.5%

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2007 database).

Numbers may not add to total due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The economic impact of the oil and natural gas industry reaches all 50 states and the District of Columbia. Due to data limitations, this study has only quantified the oil and natural gas industry's operational impact at the state level. The total number of jobs directly or indirectly attributable to the oil and natural gas industry's operations ranged from a low of 12,815 (in the District of Columbia) to more than 1.7 million (in Texas). The top 15 states, in terms of the total number of jobs directly or indirectly attributable to the oil and natural gas industry's operations in 2007 (**Table E-2a**) were Texas, California, Oklahoma, Louisiana, New York, Pennsylvania, Florida, Illinois, Ohio, Colorado, Michigan, Georgia, North Carolina, Virginia, and New Jersey. Combined these states account for nearly 70 percent of the total jobs attributable to the U.S. oil and natural gas industry's operations.

Table E-2a. Total Operational Impact of the Oil and Natural Gas Industry, 2007
Top 15 States, Ranked by Total Employment Contribution

State	Employment*		Labor Income**		Value Added	
	Amount	Percent of State Total	($ Million)	Percent of State Total	($ Million)	Percent of State Total
Texas	1,772,335	13.1%	140,941	19.5%	293,760	24.2%
California	752,614	3.7%	54,122	4.6%	100,958	5.5%
Oklahoma	348,627	16.3%	22,550	24.7%	47,839	31.3%
Louisiana	330,053	13.4%	18,449	16.6%	35,986	20.6%
New York	281,267	2.6%	21,452	3.0%	36,347	3.3%
Pennsylvania	271,250	3.8%	14,494	4.1%	25,772	4.8%
Florida	267,277	2.6%	11,441	2.6%	19,946	2.8%
Illinois	260,001	3.5%	16,953	4.2%	31,323	5.0%
Ohio	229,438	3.4%	11,121	3.7%	20,201	4.5%
Colorado	190,408	6.0%	12,438	7.7%	24,099	9.3%
Michigan	179,495	3.3%	9,820	3.8%	17,711	4.4%
Georgia	145,806	2.7%	6,841	2.7%	12,032	3.0%
North Carolina	145,779	2.7%	6,007	2.6%	10,623	2.9%
Virginia	143,479	3.0%	6,923	2.7%	11,968	3.1%
New Jersey	143,342	2.8%	9,461	3.1%	16,853	3.5%

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2007 database).
Numbers may not add to total due to rounding.
* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.
** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

The oil and natural gas industry directly and indirectly supported 4 percent or more of the total employment in 15 states in 2007 (see **Table E-2b**): Wyoming (18.8 percent) Oklahoma (16.3 percent), Louisiana (13.4 percent), Texas (13.1 percent), Alaska (9.8 percent), New Mexico (8.1 percent), West Virginia (6.7 percent), Kansas (6.5 percent), Colorado (6.0 percent), North Dakota (5.7 percent), Mississippi (5.5 percent), Montana (5.3 percent), Utah (4.7 percent), Arkansas (4.4 percent) and Nebraska (4.0 percent).

Table E-2b. Total Operational Impact of the Oil and Natural Gas Industry, 2007
Top 15 States, Ranked by Employment Share of State Total

State	Employment*		Labor Income**		Value Added	
	Amount	Percent of State Total	($ Million)	Percent of State Total	($ Million)	Percent of State Total
Wyoming	71,063	18.8%	4,060	24.3%	8,432	29.4%
Oklahoma	348,627	16.3%	22,550	24.7%	47,839	31.3%
Louisiana	330,053	13.4%	18,449	16.6%	35,986	20.6%
Texas	1,772,335	13.1%	140,941	19.5%	293,760	24.2%
Alaska	43,454	9.8%	3,143	13.5%	6,064	16.6%
New Mexico	88,814	8.1%	4,307	9.5%	8,292	12.2%
West Virginia	60,891	6.7%	2,740	7.4%	5,412	9.4%
Kansas	119,051	6.5%	6,738	8.8%	14,029	11.4%
Colorado	190,408	6.0%	12,438	7.7%	24,099	9.3%
North Dakota	27,914	5.7%	1,346	7.6%	2,773	9.6%
Mississippi	83,820	5.5%	3,609	6.5%	7,244	8.4%
Montana	34,210	5.3%	1,584	7.0%	3,324	8.9%
Utah	76,188	4.7%	3,960	5.9%	7,822	7.6%
Arkansas	69,640	4.4%	2,884	4.9%	5,589	6.0%
Nebraska	49,784	4.0%	2,743	5.6%	5,112	6.7%

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2007 database).
Numbers may not add to total due to rounding.
* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.
** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 6. The Direct, Indirect, and Induced Impacts of the Oil and Natural Gas Industry to the U.S Economy, 2007

Sector Description	Employment*	Labor Income** ($ million)	Value Added ($ million)
Direct Impact of the Oil and Natural Gas Industry	2,123,291	199,344	456,971
Indirect and Induced Impact on Other Industries***:	7,114,090	358,916	580,089
Operational Impact	*5,695,146*	*277,905*	*458,399*
Agriculture	104,549	1,850	4,412
Mining	9,268	873	1,755
Utilities	22,523	3,695	12,637
Construction	207,528	10,507	12,964
Manufacturing	397,299	27,821	42,778
Wholesale and retail trade	892,854	35,359	57,983
Transportation and warehousing	206,629	10,341	14,012
Information	124,081	10,896	21,481
Finance, insurance, real estate, rental and leasing	708,422	40,399	124,795
Services	2,834,634	123,227	151,073
Other	187,359	12,937	14,510
Capital Investment Impact	*1,418,944*	*81,012*	*121,690*
Agriculture	17,993	343	785
Mining	1,630	164	313
Utilities	3,749	614	2,015
Construction	13,395	678	758
Manufacturing	283,535	22,115	30,544
Wholesale and retail trade	281,908	14,352	22,932
Transportation and warehousing	69,863	3,551	4,734
Information	41,778	4,310	7,843
Finance, insurance, real estate, rental and leasing	120,482	7,088	19,507
Services	564,840	26,235	30,647
Other	19,771	1,562	1,612
Total Economic Impact	9,237,381	558,260	1,037,060

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2007 database).

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

*** Indirect and induced impacts on other industries exclude NAICS codes grouped under the oil and natural gas industry.

The remainder of this section provides more detail on the operational economic impacts of the oil and natural gas industry at the state level. Due to data limitations, these state-level impacts exclude economic impacts from capital investment in the oil and natural gas industry.

Table 7a shows the sum of the oil and natural gas industry's indirect and induced effects from its operations (i.e., not including its capital investment impact) in terms of employment, value added, and labor income in the 50 states and the District of Columbia, where the states are shown alphabetically. Table 7b is the same as Table 7a except that the states are ranked in order of the indirect and induced employment effect. In 2007, the five states with the largest combined indirect and induced employment effects generated by the oil and natural gas industry were, in order: Texas, California, Oklahoma, New York, and Louisiana. These top five states accounted for 46.2 percent

of the oil and natural gas industry's national combined indirect and induced employment, 47.4 percent of the oil and natural gas industry's national combined indirect and induced labor income, and 47.8 percent of the oil and natural gas industry's national combined indirect and induced value added in 2007.

Table 8a shows the direct, indirect, induced and total employment contribution of the oil and natural gas industry from its operations in the 50 states and the District of Columbia, where the states are shown alphabetically. Table 8b is the same as Table 8a except that the states are ranked in order of the industry's total employment contribution from its operations as a percent of each state's total employment. Using this metric, the top five states in 2007 were, in order: Wyoming (18.8 percent), Oklahoma (16.3 percent), Louisiana (13.4 percent), Texas (13.1 percent), and Alaska (9.8 percent).

Table 9a shows the direct, indirect, induced and total labor income contribution of the oil and natural gas industry from its operations in the 50 states and the District of Columbia, where the states are shown alphabetically. Table 9b is the same as Table 9a except the states are ranked in order of the industry's total contribution from its operations as a percent of each state's total labor income. The top five states by this metric in 2007 were, in order: Oklahoma (24.7 percent), Wyoming (24.3 percent), Texas (19.5 percent), Louisiana (16.6 percent), and Alaska (13.5 percent).

Table 10a shows the direct, indirect, induced and total value-added contribution of the oil and natural gas industry from its operations in the 50 states and the District of Columbia, where the states are shown alphabetically. Table 10b is the same as Table 10a except that the states are ranked in order of the industry's total contribution from its operations to each state's GDP. The top five states by this metric in 2007 were, in order: Oklahoma (31.3 percent), Wyoming (29.4 percent), Texas (24.2 percent), Louisiana (20.6 percent), and Alaska (16.6 percent).

More detailed state-by-state operational impact results are included in Appendix A.

The primary data source for the direct impact of the oil and natural gas industry is the IMPLAN 2007 database. The IMPLAN database represents a consistent set of economic data processed from various published sources (such as the Bureau of Economic Analysis's National Income and Product Accounts (NIPA) and Regional Economic Information System (REIS), the Census Bureau's County Business Patterns (CBP), and the Bureau of Labor Statistics' Covered Employee and Wages Program (CEW) in a variety of formats and under varying disclosure restrictions.

In cases where a NAICS code in our definition of the oil and natural gas industry does not have a one-to-one correspondence with an IMPLAN sector, employment data from the Department of Labor and Census Bureau for the NAICS code were used and PricewaterhouseCoopers estimated the corresponding value added and labor income using the IMPLAN database. Appendix B provides a more detailed discussion of the data sources and estimating methodology.

Table 7a. Indirect and Induced Impacts of the Oil and Natural Gas Industry's Operations by State (*Sorted Alphabetically*), 2007

State	Employment*		Labor Income**		Value Added	
	Amount	Percent of U.S. Total	($ Million)	Percent of U.S. Total	($ Million)	Percent of U.S. Total
Alabama	61,815	1.1%	2,584	0.9%	4,324	0.9%
Alaska	26,600	0.5%	1,190	0.4%	2,090	0.5%
Arizona	71,528	1.3%	3,393	1.2%	5,686	1.2%
Arkansas	43,106	0.8%	1,636	0.6%	2,739	0.6%
California	592,885	10.4%	34,164	12.3%	55,433	12.1%
Colorado	141,042	2.5%	7,080	2.5%	11,735	2.6%
Connecticut	47,359	0.8%	3,316	1.2%	5,186	1.1%
Delaware	10,889	0.2%	619	0.2%	970	0.2%
District of Columbia	11,102	0.2%	1,006	0.4%	1,417	0.3%
Florida	205,363	3.6%	9,150	3.3%	15,311	3.3%
Georgia	104,609	1.8%	5,210	1.9%	8,735	1.9%
Hawaii	14,521	0.3%	636	0.2%	1,056	0.2%
Idaho	16,235	0.3%	612	0.2%	1,027	0.2%
Illinois	204,420	3.6%	11,146	4.0%	17,957	3.9%
Indiana	89,458	1.6%	3,838	1.4%	6,341	1.4%
Iowa	40,496	0.7%	1,591	0.6%	2,696	0.6%
Kansas	80,260	1.4%	3,115	1.1%	5,291	1.2%
Kentucky	55,294	1.0%	2,248	0.8%	3,721	0.8%
Louisiana	221,050	3.9%	9,047	3.3%	15,015	3.3%
Maine	17,185	0.3%	668	0.2%	1,102	0.2%
Maryland	60,602	1.1%	3,190	1.1%	5,178	1.1%
Massachusetts	87,016	1.5%	5,552	2.0%	8,443	1.8%
Michigan	133,549	2.3%	6,394	2.3%	10,342	2.3%
Minnesota	80,278	1.4%	4,019	1.4%	6,449	1.4%
Mississippi	51,328	0.9%	1,838	0.7%	3,111	0.7%
Missouri	84,389	1.5%	3,754	1.4%	6,096	1.3%
Montana	21,357	0.4%	730	0.3%	1,296	0.3%
Nebraska	35,319	0.6%	1,379	0.5%	2,238	0.5%
Nevada	30,091	0.5%	1,494	0.5%	2,612	0.6%
New Hampshire	17,347	0.3%	847	0.3%	1,360	0.3%
New Jersey	110,908	1.9%	7,083	2.5%	11,420	2.5%
New Mexico	55,698	1.0%	2,124	0.8%	3,481	0.8%
New York	225,118	4.0%	16,685	6.0%	25,803	5.6%
North Carolina	101,739	1.8%	4,546	1.6%	7,697	1.7%
North Dakota	16,126	0.3%	569	0.2%	964	0.2%
Ohio	164,025	2.9%	7,326	2.6%	11,759	2.6%
Oklahoma	250,321	4.4%	8,742	3.1%	14,946	3.3%
Oregon	44,415	0.8%	1,955	0.7%	3,180	0.7%
Pennsylvania	197,457	3.5%	10,075	3.6%	16,111	3.5%
Rhode Island	11,895	0.2%	581	0.2%	923	0.2%
South Carolina	44,930	0.8%	1,828	0.7%	3,046	0.7%
South Dakota	11,719	0.2%	422	0.2%	744	0.2%
Tennessee	79,007	1.4%	3,676	1.3%	6,007	1.3%
Texas	1,340,188	23.5%	63,017	22.7%	108,000	23.6%
Utah	54,785	1.0%	2,218	0.8%	3,655	0.8%
Vermont	8,151	0.1%	314	0.1%	516	0.1%
Virginia	95,571	1.7%	5,098	1.8%	8,212	1.8%
Washington	81,254	1.4%	4,303	1.5%	7,032	1.5%
West Virginia	34,471	0.6%	1,302	0.5%	2,224	0.5%
Wisconsin	71,843	1.3%	3,122	1.1%	5,050	1.1%
Wyoming	39,034	0.7%	1,470	0.5%	2,670	0.6%
U.S. Total	5,695,146	100.0%	277,905	100.0%	458,399	100.0%

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2007 database).

Numbers may not add to total due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 7b. Indirect and Induced Impacts of the Oil and Natural Gas Industry's Operations by State (*Sorted by Employment Impact*), 2007

State	Employment*		Labor Income**		Value Added	
	Amount	Percent of U.S. Total	($ Million)	Percent of U.S. Total	($ Million)	Percent of U.S. Total
Texas	1,340,188	23.5%	63,017	22.7%	108,000	23.6%
California	592,885	10.4%	34,164	12.3%	55,433	12.1%
Oklahoma	250,321	4.4%	8,742	3.1%	14,946	3.3%
New York	225,118	4.0%	16,685	6.0%	25,803	5.6%
Louisiana	221,050	3.9%	9,047	3.3%	15,015	3.3%
Florida	205,363	3.6%	9,150	3.3%	15,311	3.3%
Illinois	204,420	3.6%	11,146	4.0%	17,957	3.9%
Pennsylvania	197,457	3.5%	10,075	3.6%	16,111	3.5%
Ohio	164,025	2.9%	7,326	2.6%	11,759	2.6%
Colorado	141,042	2.5%	7,080	2.5%	11,735	2.6%
Michigan	133,549	2.3%	6,394	2.3%	10,342	2.3%
New Jersey	110,908	1.9%	7,083	2.5%	11,420	2.5%
Georgia	104,609	1.8%	5,210	1.9%	8,735	1.9%
North Carolina	101,739	1.8%	4,546	1.6%	7,697	1.7%
Virginia	95,571	1.7%	5,098	1.8%	8,212	1.8%
Indiana	89,458	1.6%	3,838	1.4%	6,341	1.4%
Massachusetts	87,016	1.5%	5,552	2.0%	8,443	1.8%
Missouri	84,389	1.5%	3,754	1.4%	6,096	1.3%
Washington	81,254	1.4%	4,303	1.5%	7,032	1.5%
Minnesota	80,278	1.4%	4,019	1.4%	6,449	1.4%
Kansas	80,260	1.4%	3,115	1.1%	5,291	1.2%
Tennessee	79,007	1.4%	3,676	1.3%	6,007	1.3%
Wisconsin	71,843	1.3%	3,122	1.1%	5,050	1.1%
Arizona	71,528	1.3%	3,393	1.2%	5,686	1.2%
Alabama	61,815	1.1%	2,584	0.9%	4,324	0.9%
Maryland	60,602	1.1%	3,190	1.1%	5,178	1.1%
New Mexico	55,698	1.0%	2,124	0.8%	3,481	0.8%
Kentucky	55,294	1.0%	2,248	0.8%	3,721	0.8%
Utah	54,785	1.0%	2,218	0.8%	3,655	0.8%
Mississippi	51,328	0.9%	1,838	0.7%	3,111	0.7%
Connecticut	47,359	0.8%	3,316	1.2%	5,186	1.1%
South Carolina	44,930	0.8%	1,828	0.7%	3,046	0.7%
Oregon	44,415	0.8%	1,955	0.7%	3,180	0.7%
Arkansas	43,106	0.8%	1,636	0.6%	2,739	0.6%
Iowa	40,496	0.7%	1,591	0.6%	2,696	0.6%
Wyoming	39,034	0.7%	1,470	0.5%	2,670	0.6%
Nebraska	35,319	0.6%	1,379	0.5%	2,238	0.5%
West Virginia	34,471	0.6%	1,302	0.5%	2,224	0.5%
Nevada	30,091	0.5%	1,494	0.5%	2,612	0.6%
Alaska	26,600	0.5%	1,190	0.4%	2,090	0.5%
Montana	21,357	0.4%	730	0.3%	1,296	0.3%
New Hampshire	17,347	0.3%	847	0.3%	1,360	0.3%
Maine	17,185	0.3%	668	0.2%	1,102	0.2%
Idaho	16,235	0.3%	612	0.2%	1,027	0.2%
North Dakota	16,126	0.3%	569	0.2%	964	0.2%
Hawaii	14,521	0.3%	636	0.2%	1,056	0.2%
Rhode Island	11,895	0.2%	581	0.2%	923	0.2%
South Dakota	11,719	0.2%	422	0.2%	744	0.2%
District of Columbia	11,102	0.2%	1,006	0.4%	1,417	0.3%
Delaware	10,889	0.2%	619	0.2%	970	0.2%
Vermont	8,151	0.1%	314	0.1%	516	0.1%
U.S. Total	5,695,146	100.0%	277,905	100.0%	458,399	100.0%

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2007 database).

Numbers may not add to total due to rounding.

* Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

** Labor income is defined as wages and salaries and benefits as well as proprietors' income.

Table 8a. Employment Impact of the Oil and Natural Gas Industry's Operations by State (*Sorted Alphabetically*), 2007

State	Direct Employment	Indirect Employment	Induced Employment	Total Contribution	Total Contribution as a % of State Total Employment
Alabama	32,917	17,834	43,981	94,732	3.7%
Alaska	16,854	10,010	16,590	43,454	9.8%
Arizona	25,157	19,158	52,370	96,685	2.9%
Arkansas	26,533	14,493	28,613	69,640	4.4%
California	159,728	163,781	429,105	752,614	3.7%
Colorado	49,366	46,439	94,603	190,408	6.0%
Connecticut	15,327	11,841	35,518	62,686	2.9%
Delaware	4,548	3,096	7,793	15,437	2.9%
District of Columbia	1,713	2,614	8,488	12,815	1.5%
Florida	61,914	52,765	152,598	267,277	2.6%
Georgia	41,197	25,632	78,977	145,806	2.7%
Hawaii	4,019	3,406	11,114	18,539	2.1%
Idaho	7,765	4,192	12,043	24,000	2.6%
Illinois	55,581	51,421	152,999	260,001	3.5%
Indiana	37,898	26,315	63,142	127,355	3.5%
Iowa	22,758	10,834	29,662	63,254	3.1%
Kansas	38,790	21,713	58,548	119,051	6.5%
Kentucky	32,196	16,503	38,791	87,490	3.6%
Louisiana	109,003	84,767	136,283	330,053	13.4%
Maine	12,712	4,170	13,015	29,897	3.6%
Maryland	17,622	14,057	46,545	78,224	2.3%
Massachusetts	25,070	20,819	66,197	112,086	2.7%
Michigan	45,946	35,768	97,781	179,495	3.3%
Minnesota	33,430	22,734	57,544	113,708	3.2%
Mississippi	32,492	17,480	33,847	83,820	5.5%
Missouri	38,430	24,602	59,787	122,820	3.4%
Montana	12,852	7,974	13,383	34,210	5.3%
Nebraska	14,465	8,606	26,712	49,784	4.0%
Nevada	13,049	8,254	21,837	43,140	2.7%
New Hampshire	8,909	4,489	12,858	26,256	3.1%
New Jersey	32,434	29,900	81,008	143,342	2.8%
New Mexico	33,116	20,961	34,737	88,814	8.1%
New York	56,149	49,962	175,155	281,267	2.6%
North Carolina	44,040	25,416	76,323	145,779	2.7%
North Dakota	11,788	6,599	9,527	27,914	5.7%
Ohio	65,413	45,629	118,397	229,438	3.4%
Oklahoma	98,306	82,368	167,953	348,627	16.3%
Oregon	15,707	11,536	32,879	60,122	2.6%
Pennsylvania	73,792	55,084	142,374	271,250	3.8%
Rhode Island	4,265	2,714	9,181	16,160	2.7%
South Carolina	23,372	11,368	33,562	68,303	2.8%
South Dakota	8,223	3,224	8,495	19,942	3.6%
Tennessee	35,187	22,045	56,962	114,194	3.1%
Texas	432,147	421,747	918,441	1,772,335	13.1%
Utah	21,404	17,713	37,072	76,188	4.7%
Vermont	6,008	2,120	6,031	14,159	3.3%
Virginia	47,908	25,182	70,388	143,479	3.0%
Washington	25,362	21,724	59,531	106,616	2.7%
West Virginia	26,420	14,085	20,386	60,891	6.7%
Wisconsin	31,978	19,065	52,778	103,821	2.9%
Wyoming	32,029	16,929	22,105	71,063	18.8%
U.S. Total	2,123,291	1,661,138	4,034,007	7,818,437	4.4%

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2007 database).

Numbers may not add to total due to rounding.

Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

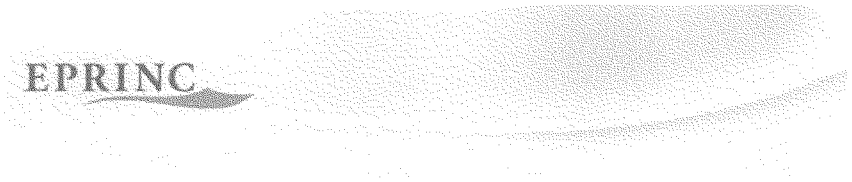
Table 8b. Employment Impact of the Oil and Natural Gas Industry's Operations by State (*Sorted by Employment Share of State Total*), 2007

State	Direct Employment	Indirect Employment	Induced Employment	Total Contribution	Total Contribution as a % of State Total Employment
Wyoming	32,029	16,929	22,105	71,063	18.8%
Oklahoma	98,306	82,368	167,953	348,627	16.3%
Louisiana	109,003	84,767	136,283	330,053	13.4%
Texas	432,147	421,747	918,441	1,772,335	13.1%
Alaska	16,854	10,010	16,590	43,454	9.8%
New Mexico	33,116	20,961	34,737	88,814	8.1%
West Virginia	26,420	14,085	20,386	60,891	6.7%
Kansas	38,790	21,713	58,548	119,051	6.5%
Colorado	49,366	46,439	94,603	190,408	6.0%
North Dakota	11,788	6,599	9,527	27,914	5.7%
Mississippi	32,492	17,480	33,847	83,820	5.5%
Montana	12,852	7,974	13,383	34,210	5.3%
Utah	21,404	17,713	37,072	76,188	4.7%
Arkansas	26,533	14,493	28,613	69,640	4.4%
Nebraska	14,465	8,606	26,712	49,784	4.0%
Pennsylvania	73,792	55,084	142,374	271,250	3.8%
Alabama	32,917	17,834	43,981	94,732	3.7%
California	159,728	163,781	429,105	752,614	3.7%
Kentucky	32,196	16,503	38,791	87,490	3.6%
South Dakota	8,223	3,224	8,495	19,942	3.6%
Maine	12,712	4,170	13,015	29,897	3.6%
Illinois	55,581	51,421	152,999	260,001	3.5%
Indiana	37,898	26,315	63,142	127,355	3.5%
Ohio	65,413	45,629	118,397	229,438	3.4%
Missouri	38,430	24,602	59,787	122,820	3.4%
Michigan	45,946	35,768	97,781	179,495	3.3%
Vermont	6,008	2,120	6,031	14,159	3.3%
Minnesota	33,430	22,734	57,544	113,708	3.2%
Iowa	22,758	10,834	29,662	63,254	3.1%
Tennessee	35,187	22,045	56,962	114,194	3.1%
New Hampshire	8,909	4,489	12,858	26,256	3.1%
Virginia	47,908	25,182	70,388	143,479	3.0%
Wisconsin	31,978	19,065	52,778	103,821	2.9%
Arizona	25,157	19,158	52,370	96,685	2.9%
Delaware	4,548	3,096	7,793	15,437	2.9%
Connecticut	15,327	11,841	35,518	62,686	2.9%
New Jersey	32,434	29,900	81,008	143,342	2.8%
South Carolina	23,372	11,368	33,562	68,303	2.8%
Washington	25,362	21,724	59,531	106,616	2.7%
North Carolina	44,040	25,416	76,323	145,779	2.7%
Georgia	41,197	25,632	78,977	145,806	2.7%
Nevada	13,049	8,254	21,837	43,140	2.7%
Massachusetts	25,070	20,819	66,197	112,086	2.7%
Rhode Island	4,265	2,714	9,181	16,160	2.7%
Oregon	15,707	11,536	32,879	60,122	2.6%
Idaho	7,765	4,192	12,043	24,000	2.6%
Florida	61,914	52,765	152,598	267,277	2.6%
New York	56,149	49,962	175,155	281,267	2.6%
Maryland	17,622	14,057	46,545	78,224	2.3%
Hawaii	4,019	3,406	11,114	18,539	2.1%
District of Columbia	1,713	2,614	8,488	12,815	1.5%
U.S. Total	2,123,291	1,661,138	4,034,007	7,818,437	4.4%

Source: PricewaterhouseCoopers calculations using IMPLAN modeling system (2007 database).

Numbers may not add to total due to rounding.

Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.



The Blowout and the Deepwater Moratorium

...putting the spill in perspective

The Third Report in a Series of EPRINC Assessments of the BP Macondo Oil Spill

July 2, 2010

Energy Policy Research Foundation, Inc.
Washington, DC

EPRINC

This is the third EPRINC assessment of the blowout.[1] This report addresses the environmental, economic, and revenue consequences to the federal government from the recently imposed ban on deepwater drilling in the U.S. Gulf of Mexico and all offshore drilling in the federal waters of arctic Alaska. The assessment concludes that the recently imposed measures to curtail domestic exploration in the deepwater will not substantially reduce the risk of an oil spill, but will impose severe and potentially long-term economic costs, job losses, setbacks to U.S. energy security, and lost fiscal revenue.

EPRINC's Key Findings

- The environmental benefits of the moratorium are unclear. Offshore spills caused by blowouts are extremely rare. From 1979 to 2009, blowouts were responsible for the spillage of only 1,800 barrels in the OCS (Outer Continental Shelf). Reducing E&P (Exploration and Production) activity in the OCS, as the moratorium intends, will not necessarily reduce the risk of spillage. Because the U.S. will have to offset lost production with imports, tanker traffic will likely increase. Tanker accidents have historically released significantly more oil into U.S. waters than offshore E&P activity.
- The U.S. currently imports 9-10 million barrels of oil each day (MM bbl/d). A reduction in domestic production will need to be compensated by additional imports. The EIA (Energy Information Administration) and other agencies are already forecasting lost production due to the six month moratorium.
- The moratorium on deepwater activity puts thousands of existing jobs at risk in the Gulf and will reduce the potential for future job growth in the offshore oil and gas industry, currently supporting an estimated 435,000 jobs. Exploration rigs are contemplating abandoning the Gulf as a result of the uncertainty created by the moratorium. This has long-term negative implications for Gulf employment as well as oil and gas production.
- OCS oil and gas production generates financial benefits for the federal government and the broader economy. The federal government collects billions of dollars per year in royalties, bonuses, rents, and income taxes from OCS production.

[1] EPRINC has issued two previous reports on the blowout, entitled "Oil Spill in the Gulf: Who's in Charge?" and "A Proposed Agenda for the Presidential Commission," available at http://www.eprinc.org/publications

EPRINC

- Per the government's own estimates, the unexplored portions of the OCS contain vast, untapped hydrocarbon resources. EPRINC's calculations show that these resources could generate hundreds of billions of dollars in federal revenues over the next few decades if access is not constrained by a moratorium.

I. Introduction

On April 20, 2010, the Deepwater Horizon experienced a fire and explosion while conducting drilling operations on the Macondo well in the Gulf of Mexico.[2] Control of the well was lost, backup safety measures such as the blowout preventer (BOP) failed, and a large surge of methane reached the operating facilities of the rig from the well bore, causing an explosion and large fire. After fire boats failed to put out the fire, the Deepwater Horizon sank. Eleven platform workers were killed and 17 others were injured from the accident. Oil and gas began to spill into the Gulf of Mexico (GOM) from the well bore.

A precise estimate of the spill volume remains difficult to calculate and is a matter of continuing controversy. Nevertheless, the spill has imposed severe costs on the tourism and fishing industries in Gulf Coast communities and has caused damage to wildlife and the wider coastal environment. Crews have been working to protect hundreds of miles of beaches, wetlands, and estuaries along the Gulf Coast, using skimmer ships, floating containment booms, anchored barriers, and sand-filled barricades along shorelines. The U.S. Government has named BP as the responsible party in the incident, and officials have said the company will be held accountable for all cleanup costs resulting from the oil spill. Several different attempts, each using a different engineering approach, have been made to stop the flow of oil from the well into the marine environment, including most recently a system of containment domes connected to ships on the surface. BP is also in the process of drilling two relief wells, either of which offers the best prospect for a permanent end to the spill. These relief wells are unlikely to be effective until August 2010.

In response to the spill, the Obama administration has undertaken a full regulatory review of all federal offshore operations, made substantial changes to the regulatory structure of the former Mineral Management Service (MMS), created a new Bureau of Ocean Energy, imposed a six month ban on deepwater and offshore arctic drilling operations (i.e., drilling taking place in water depths greater than 500 feet or offshore Alaska at any depth), and established the bipartisan ***National Commission on the***

[2] Macondo is oil and gas producing prospect in the Gulf of Mexico located approximately 40 miles southeast of the Louisiana coast on Mississippi Canyon Block 252 in the Gulf of Mexico. At the time of the blowout, BP had completed an exploratory well to a depth of approximately 18,000 feet below the seabed. The Deepwater Horizon was operating in about 5000 feet above the seabed. BP serves as the operator, holding a 65% interest in the prospect; Anadarko holds 25%; and Mitsui holds the remaining 10%. For a discussion of the prospect see *SubsealQ* at http://www.subseaiq.com/data/Project.aspx?project_id=562

BP Deepwater Horizon Oil Spill and Offshore Drilling.[3] The Commission is tasked with providing recommendations on how the government can prevent and mitigate the impact of any future spills that result from offshore drilling.

In addition to the decision by the Obama administration to proceed with the investigative Commission and to implement a six month ban on deepwater and offshore arctic drilling, various interest groups and members of Congress have called for a more rapid transition to alternative fuels, immediate implementation of climate control legislation, and severe constraints on the development of domestic offshore oil and gas resources as effective strategies to reduce the risk of oil spills in the coastal regions of the United States. Several initiatives are also underway to increase the current liability cap ($75 million) of damages resulting from a spill.[4]

[3] A recent decision by the Louisiana Federal District Court overturned the ban, but the Administration has announced its plans to appeal the decision. Platts Oilgram News. June 23, 2010.

[4] The Oil Pollution Act of 1990 outlines the regulatory authority for identifying responsible parties and the government's role in responding to an oil spill. See EPRINC briefing memorandum *Oil Spill in the Gulf- Who is in Charge?* The report is available at http://www.eprinc.org/pdf/OPA-Briefing.pdf

II. Oil Spills

The History of Offshore Drilling in the Gulf of Mexico

In 2001 U.S. deepwater oil production surpassed shallow water production.[5] The federal waters of the Gulf of Mexico's Outer Continental Shelf (OCS) currently have over 7,000 active oil and gas leases with over 4,000 Exploration and Production (E&P) platforms in operation. These facilities produce roughly 1.7 million barrels per day (MM bbl/d), accounting for over 90 percent of all offshore U.S. oil production (federal and state waters combined) and one third of all U.S. crude oil production. Eighty percent of U.S. offshore oil production comes from wells operating at water depths of 1000 feet or more.[6] Approximately 2.5 trillion cubic feet (tcf) of natural gas are produced annually in the Gulf's OCS, accounting for 10% of U.S. natural gas production. An additional 125 MM bbls (barrels) per year of natural gas liquids are produced in the Gulf's OCS.

Since 1947 over 50,000 wells have been drilled in the Gulf's federal waters. Over 4,000 of these wells have been drilled in water depths of greater than 1,000 feet. Approximately 700 wells have been drilled in water depths of 5,000 feet or greater.[7]

Spills from E&P activities are rare in the Gulf of Mexico and in all American waters. The Macondo spill is the first offshore domestic E&P spill to release more than 100,000 bbls. The scale of the Macondo spill is unprecedented in the history of the Gulf's 50,000 wells – blowout induced spills in particular have been exceedingly rare in the Gulf. Reports from the Department of Interior (DOI) show that from 1979 to 2009, "a total of approximately 1,800 barrels was spilled on the Federal OCS as a result of blowout events."[8] From 1980 to 2009 there were 125 spills in the OCS over 50 bbls. The spills averaged 216 bbls each, totaling 27,000 bbls over a 30 year time period. Table 1 below provides a summary of spills in the OCS since 1960.

[5] MMS defines deepwater as 1000 feet and shallow water as 500 feet
[6] Department of Interior. "Increased Safety Measures for Energy Development on the Outer Continental Shelf." May 27, 2010. http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=33598
[7] Ibid
[8] Ibid

EPRINC

Table 1. OCS Production and Spills

Time Period	OCS Oil Production (Thousand Barrels)	Number of Spills	Barrels Spilled (Thousand Barrels)	Thousand Barrels Produced per Barrel Spilled
1960-1969	1,460,000	13	99	15
1970-1979	3,455,000	32	106	33
1980-1989	3,387,000	38	7	473
1990-1999	4,051,000	15	2	1,592
2000-2009	5,450,000	72	18	296

Source: Department of Interior Data

As Table 1 above illustrates, OCS oil spills have diminished since the 1960s and 1970s even as production has continued to grow.

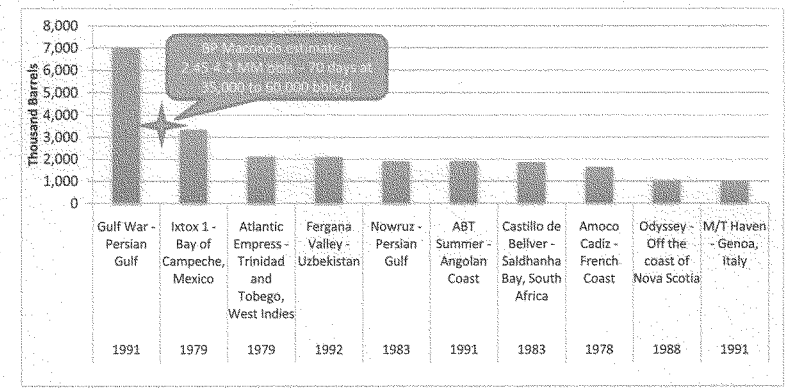
Following the Exxon Valdez spill in 1989, tanker spillage in U.S. waters declined significantly even as volumes of crude oil imported into the U.S. via tankers increased -- in part due to legislation requiring double hulls.

A Brief History of the World's Worst Oil Spills

Oil spills have been prevalent throughout the history of the petroleum era; however, spills caused by loss of well control are extremely rare, particularly in U.S. waters. The most common large anthropogenic spills usually come in the form of tanker accidents. Historically, tankers have been responsible for four times the amount of oil in U.S. waters than E&P activity. Figure 1 below shows the world's 10 largest oil spills in the modern petroleum era. (Also see EPRINC's map on page 12 of the 10 largest spills.) Tanker accidents represent the most frequent source of oil spills in Figure 1 and are comparable in total volume.

EPRINC

Figure 1. Ten Largest Oil Spills Worldwide (In modern history)[9]



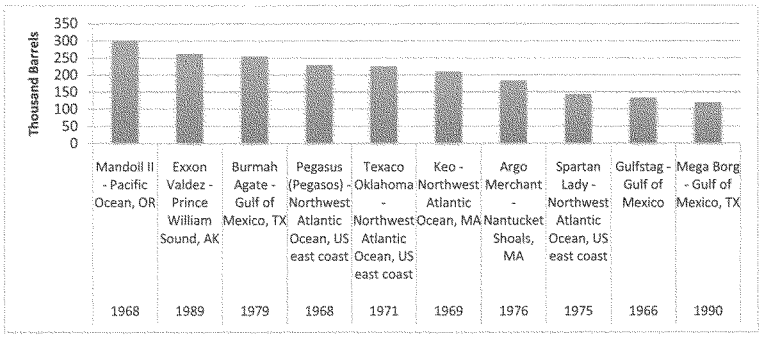
Source: Popular Mechanics Data, EPRINC Calculations

Of the spills listed in Figure 1, only two were caused by a blowout (excluding Macondo) and seven were caused by tanker accidents. The Gulf War spill was caused by Iraqi forces sabotaging Kuwaiti oil fields as they retreated from Kuwait during the Persian Gulf War. An estimated 5.7 – 8.7 MM bbls were leaked into the Persian Gulf. The Ixtoc I spill was caused by a blowout in the shallow waters of the Bay of Campeche, adjacent to the Gulf of Mexico. Petroleos Mexicanos (PEMEX) was drilling the two mile deep Ixtoc I well when a loss of drilling mud circulation caused a blowout and ignited the rig, causing it to sink on top of the well-head. Attempts to activate the blowout preventer (BOP) failed. Ten months later the well was plugged with a relief well. The Ixtoc I well was estimated to have spilled 10,000-30,000 barrels per day over the course of ten months and fouled approximately 200 miles of Texas beaches.[10] Pemex paid no liability claims for environmental damage. The Fergana Valley spill is the only other spill in Figure 1 not related to a tankering accident. The spill was caused by a blowout and an estimated 2 million barrels were leaked before the well ceased flowing on its own.

[9] Since 1950. Some sources consider the fourth largest spill to be a 2 MM bbl spill in 1994 from a leaking pipeline into the Kolva River in Russia near the Barents Sea.
[10] NOAA, *Oil Spill Case Histories*, 1992

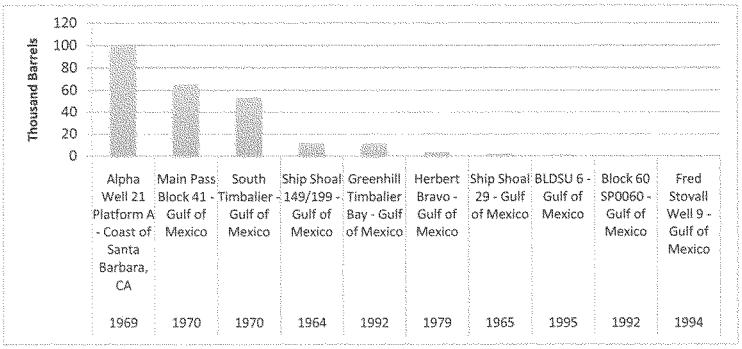
Figures 2 and 3 below show the ten largest tanker spills in and near U.S. waters and the largest marine spills in U.S. waters caused by blowouts. Prior to the Macondo spill, the ten largest U.S. marine blowouts combined were smaller than any one of the ten largest tanker spills in U.S. waters.

Figure 2. Largest Tanker Spills in and near U.S. Waters



Source: API Data

Figure 3. Largest U.S. Marine Oil Well Blowouts



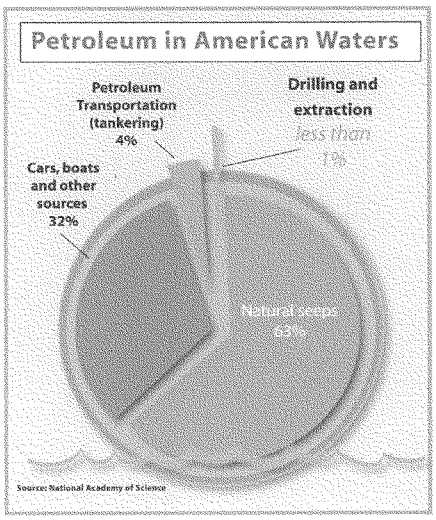
Source: API Data

EPRINC

Other Environmental Considerations

Petroleum enters the marine environment through a range of sources. The National Academy of Sciences released a study in 2003 examining the primary sources of petroleum in American waters.[11] "Drilling and Extraction" is the smallest source, accounting for less than 1% of all petroleum in American waters. The movement of petroleum by tanker accounts for approximately 4% of total petroleum in American waters. Natural seeps account for nearly two-thirds (63%) of oil in America waters. "Cars, boats and other sources" represent nearly a third of petroleum in American waters.

Figure 4.Petroleum in American Waters

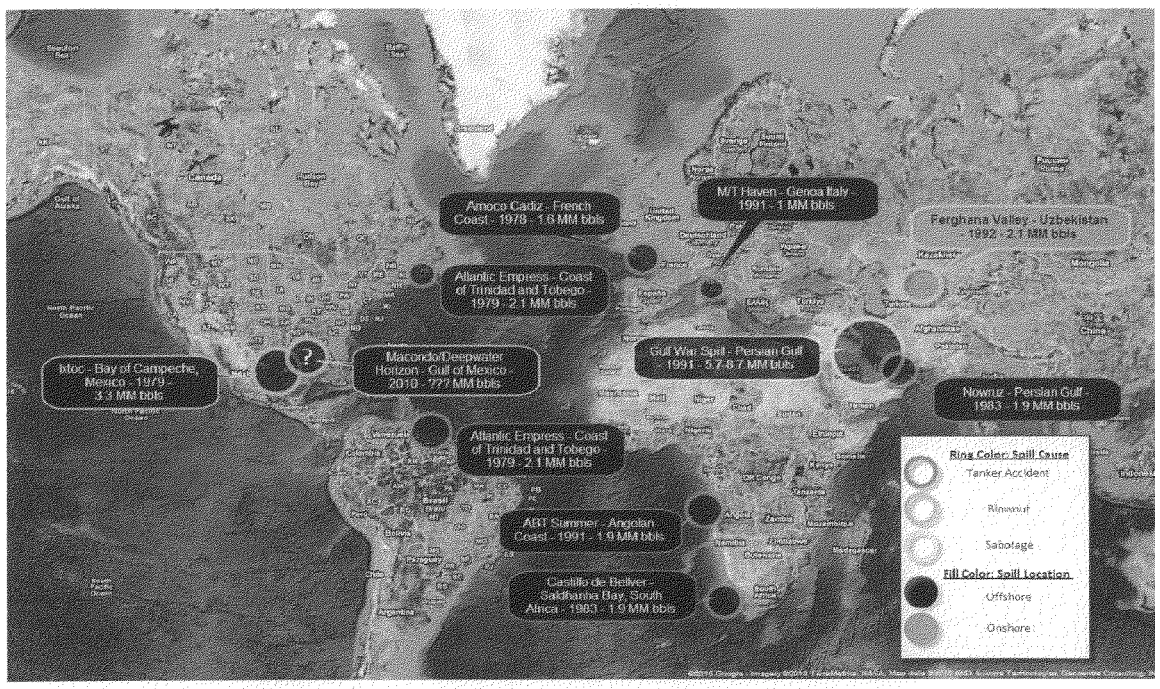


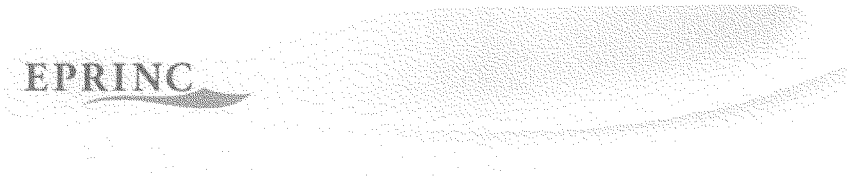
Tanker accidents have historically released significantly more oil into U.S. waters than offshore E&P activity. Thus, a reduction in drilling activity will shift the risk of spillage from local production to tankering because the U.S. will likely have to import additional volumes of oil to offset lost domestic

[11] Oil in the Sea III: Inputs, Fates, and Effects. 2003. The National Academies Press

offshore production. It will also shift environmental and safety risks to other parts of the world where environmental and social standards for oil production might not be as stringent as they are in the U.S.

Figure 5. Map of Ten Largest Oil Spills and Macondo





III. Economic Costs

Since the Macondo blowout and spill, over 35,000 Gulf Coast business owners and workers have filed claims for lost income.[12] All of the major industries in the Gulf: fishing, shipping, tourism, and oil and gas, have been severely impacted by this incident.

Thousands of square miles of the Gulf Coast are closed to fishing, a $2.8 billion dollar industry in Louisiana alone.[13] Many fishermen have already been put out of business in the past months and are likely to feel the negative effects of this spill long after the well is sealed. And while fishing is a relatively small contributor to the Gulf economy compared to tourism and oil, it plays an important role in terms of job creation as well as driving tourism.[14] Tourism, the second largest industry in the Gulf, has already begun to feel the impacts of the spill, although many beaches actually remain clean and open. Florida has reported cancellations up to three months in advance and Mississippi has seen cancelation rates as high as 50 percent.[15]

---

[12] Robbie Brown and Michael Cooper. "BP Pays Out Claims, but Satisfaction Is Not Included." June 6, 2010. http://www.nytimes.com/2010/06/07/us/07claims.html

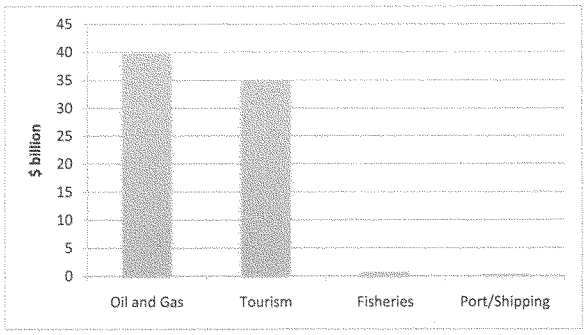
[13] The Louisiana seafood industry generates $1.8 billion in retail sales annually. Recreational fishing generates approximately $1 billion. See *BusinessWeek:* http://www.businessweek.com/news/2010-04-29/oil-spill-imperils-gulf-coast-fishing-industry-update1-.html. In comparison, oil sales from Gulf OCS production would generate about $40 billion annually at $70/bbl.

[14] The Gulf coast provides 0.3% of U.S. seafood. The U.S. imports 83% of its seafood and 90% of its shrimp. See *Wall Street Journal,* "Impact on Seafood Prices is Limited," June 21, 2010. http://online.wsj.com/article/SB10001424052748703438604575314563269981870.html

[15] Steve Hargreaves, "Oil Spill Damages Spread Through Gulf Economies", June 1, 2010, http://money.cnn.com/2010/05/30/news/economy/gulf_economy/index.htm

Figure 6 below shows the productive value of the top four U.S. Gulf Coast industries.[16]

Figure 6. Productive Value of the Largest U.S. Gulf Coast Industries



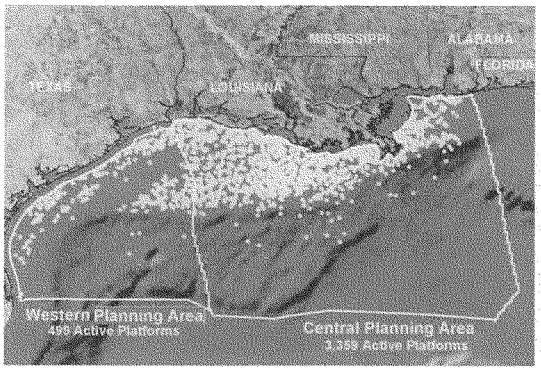
Source: Gulf of Mexico Origin, Waters, and Biota Volume 2, Ocean and Coastal Economy

The Gulf Coast petroleum industry, the region's largest industry, has suffered a severe setback from the Macondo blowout and subsequent moratorium on offshore drilling at depths beyond 500 feet. There are 4,000 active oil and gas platforms in the Gulf of Mexico. Existing Gulf production is dependent on new drilling to help stem decline rates – notoriously steep in the Gulf's deepwater oil wells. Figure 7 below, provided by the National Oceanic and Atmospheric Administration (NOAA), shows the active Gulf OCS production platforms as of June 2008.

[16] James C. Cato. Gulf of Mexico Origin, Waters, and Biota Volume 2, Ocean and Coastal Economy. Texas A&M University Press. 2009. Values in Figure 7 can vary widely depending on commodity prices (e.g., Figure 7 assumes and oil price of $28.50/bbl) and therefore should be considered a conservative estimate of the relative values of the included industries.

EPRINC

Figure 7. Active Gulf OCS Oil and Gas Platforms



Source: NOAA, Revised June 8, http://oceanexplorer.noaa.gov/explorations/06mexico/background/oil/oil.html

According to a recent estimate from the MMS, "offshore operations" in America provide 150,000 direct jobs.[17] The same operations support an additional 285,000 indirect jobs, bringing total offshore employment (direct and indirect) to roughly 435,000 jobs.[18] Considering the Gulf Coast contributes over 90 percent of U.S. offshore oil production (both state and federal), 80 percent of which comes from wells in depths over 1,000 feet, a reduction in offshore drilling activity nationwide will predominantly impact Gulf Coast employment.[19] More specifically, the majority of oil and gas in the Gulf of Mexico is produced in the Central Planning Area, the coastal regions off of Louisiana, Mississippi, and Alabama.[20] Recent estimates of potential job losses suggest that 10,000 deepwater rig jobs are at risk in addition to 25,000 indirect jobs in supporting industries such as food service, transportation, drilling equipment, cleaning, construction, and port staff.[21]

[17] Department of the Interior. "Increased Safety Measures for Energy Development on the Outer Continental Shelf." May 27, 2010
[18] Based on MMS direct employment data and indirect employment multiplier for the petroleum and natural gas sector of the U.S. economy from the Economic Policy Institute. "Updated Employment Multipliers for the U.S. Economy." Josh Bivens, August 2003
[19] Department of the Interior. "Increased Safety Measures for Energy Development on the Outer Continental Shelf." May 27, 2010
[20] James C. Cato. Gulf of Mexico Origin, Waters, and Biota Volume 2, Ocean and Coastal Economy. Texas A&M University Press. 2009.
[21] Steve Hargreaves. "Drilling Ban: The Jobs at Stake." June 24, 2010. http://money.cnn.com/2010/06/24/news/economy/drilling_jobs_at_stake/index.htm

EPRINC

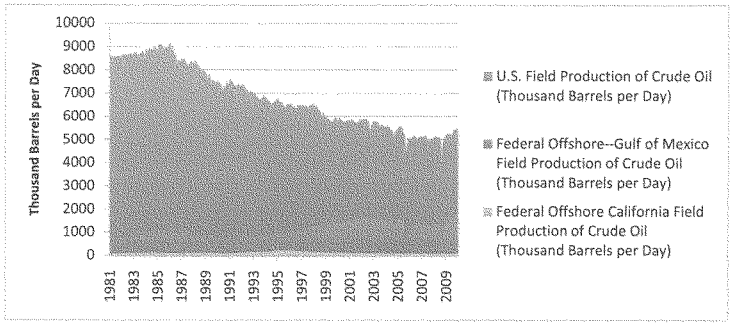
Thirty-three active deepwater drilling rigs were idled by the moratorium. The total economic impact to the Gulf region alone from shutting down these 33 rigs for a year could cost the region's economy over $10 billion.[22] Other estimates suggest each idled rig could risk as many as 1,400 jobs. Lost wages per rig per month could be as high as $10 million or $330 million (all 33 rigs).[23]

There is strong worldwide demand for these deepwater rigs. And many of the more modern rigs command daily rates between $500,000 and $650,000. The likelihood that these rigs will soon go abroad is increasing given the uncertainty of their work in US Federal waters.[24]

Lost Production Expected

As Figure 8 below demonstrates, federal Gulf of Mexico crude oil production represents a significant portion of the nation's petroleum supply. The Gulf is currently responsible for 30 percent of domestic oil production and as of January 2010 was producing at its highest rate ever, 1.7 MM bbl/d.

Figure 8. U.S. (Blue) and Federal OCS (Gulf Coast in Red, California in Green) Crude Production



Source: EIA Data

[22] Industry analyst data and EPRINC calculation
[23] National Ocean Industries Association, June 2, 2010, "Thousands of Jobs and Billions of Dollars in Government Revenue at Risk From Six-month Gulf Drilling Halt Says National Ocean Industries Association Chairman", http://www.noia.org/website/article.asp?id=38561
[24] Rhonda Brammer, "Safe Harbor in Deep Water," March 30, 2009, http://online.barrons.com/article/SB123820180286962525.html#articleTabs_panel_article%3D1

The six month moratorium on deepwater E&P activity will have an appreciable impact on production in both the short and long-term. The Energy Information Administration (EIA) projects that the moratorium will reduce production by 26,000 bbl/d in the fourth quarter of 2010 and 76,000 bbl/d in 2011.[25] A sampling of assessments by investment banks forecast lost production from the moratorium ranging from 100,000 bbl/d to 400,000 bbl/d should the ban remain in place for 6-12 months. The International Energy Agency (IEA) estimated possible lost production at 100,000-300,000 bbl/d by 2015 as a result of "tighter legislation" from the spill. Should other oil producing countries adopt similar restrictions, the world could lose 800,000-900,000 bbl/d of production, according to IEA's forecast. IEA said the spill could be a "supply-side game changer" for deepwater oil production--the source of half of all global upcoming developments--should other producers also tighten deepwater access.[26]

Lost Production.....More Imports

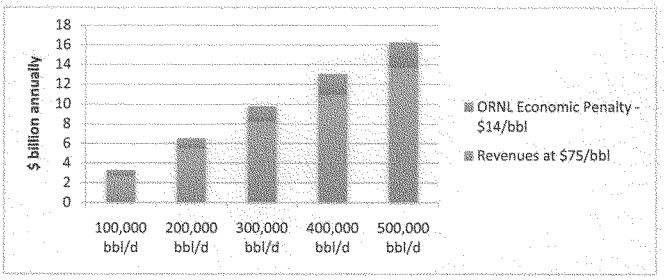
Oak Ridge National Laboratory (ORNL) released a study in 2006 that estimated the cost to the U.S. economy of every barrel of imported oil.[27] ORNL found that the cost of imported oil to the U.S. economy is $13.58/bbl (in 2004 US dollars) in addition to the market price. This cost includes both a monopsony component (the estimated effect the U.S has on world oil prices as the world's largest consumer of crude oil) and a cost for macroeconomic disruptions to the U.S. economy. ORNL's calculations do not include environmental or foreign policy costs. ORNL's study has been used by National Highway Transportation Safety Administration (NHTSA) to provide justification for increasing corporate average fuel economy (CAFE) standards[28] and by the Environmental Protection Agency (EPA) to promote the National Renewable Fuel Standards Program (RFS2).[29]

In 2009 dollars, the incremental benefit to the U.S. of reducing oil imports by 1 barrel is estimated to be $14.70.[30] With petroleum imports for 2010 likely to average approximately 9 MM bbl/d, imports will cost the U.S. economy an additional $48 billion (in addition to the cost of the oil itself). Lost *Gulf*

[25] EIA June 2010 Short-term Energy Outlook
[26] Platts Oilgram News. "IEA: 1 million b/d at risk from Gulf spill." June 21, 2010
[27] Oak Ridge National Laboratory. *Estimating the Energy Security Benefits of Reduced U.S. Oil Imports*.http://www.epa.gov/OMS/renewablefuels/ornl-tm-2007-028.pdf
[28] National Highway Transportation Safety Administration. http://www.nhtsa.dot.gov/portal/nhtsa_static_file_downloader.jsp?file=/staticfiles/DOT/NHTSA/Rulemaking/Rules/Associated%20Files/CAFE_Final_Rule_MY2011_FRIA.pdf
[29] For a discussion of EPA's calculations on the contribution and justification for subsidies for renewable fuels see www.epa.gov/otaq/renewablefuels/420f09023.htm
[30] According to the Federal Reserve's Price Adjusted Broad Dollar Index for July 2004 and July 2009

production, which will be supplanted by imports, will cost the US economy $1.3 billion per year if 250,000 bbl/d of production are lost. Figure 9 below shows annual lost gross revenues from oil sales and the ORNL's economic penalty for oil imports over a range of lost production amounts and an oil price of $75/bbl.

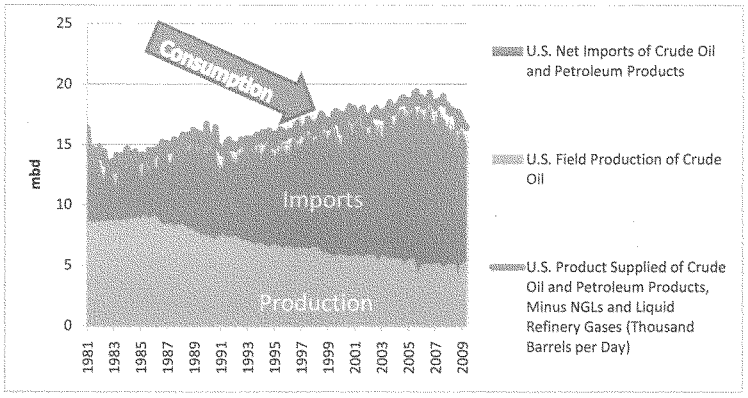
Figure 9. Annual Lost Revenues and Economic Costs of Lost Domestic Production



Source: EPRINC Calculations, ORNL Data

Some legislators and policy makers are recommending the U.S. scale back the offshore leasing program and replace the lost production with alternative fuels and conservation. However, such a strategy represents a false choice. As shown in Figure 10 below the U.S. imports approximately 9 MM bbl/d of crude oil. Imports represent the "marginal barrel" to the U.S. economy and until these imports fall to zero, any lost domestic production will be replaced by imports.

Figure 10. Historical U.S. Crude Oil Production, Imports, and Consumption

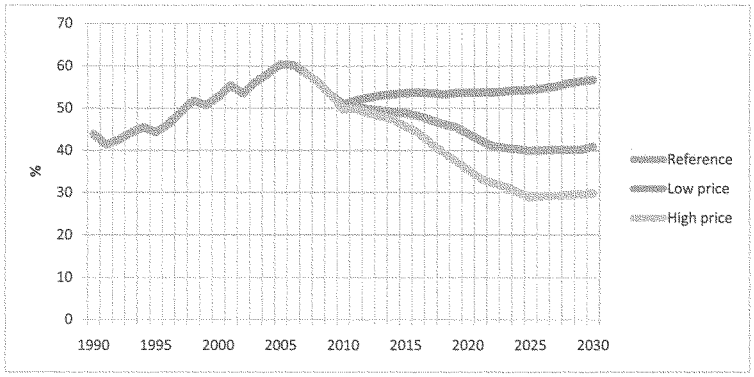


Source: EIA Data

Alternative fuels can help to reduce net imports of crude oil and petroleum products, but these alternatives (biofuels, electric vehicles, natural gas vehicles) offer only limited opportunity to substantially lower oil imports in the near to medium term. Over the next 10-20 years the likelihood of transitioning into an environment of significantly less oil imports is low. Even under the most optimistic scenario for using alternative fuels and technologies, the U.S. will import large volumes of petroleum. In its 2009 *Annual Energy Outlook*, the EIA projected U.S. liquid fuels consumption at 20.2 MM bbl/d in 2020 and 21.7 MM bbl/d in 2030. If the Energy Independence and Security Act of 2007 (EISA 2007) is met in 2022, it will contribute just 2.35 MM bbl/d of renewable transportation fuels. The remainder of projected U.S. liquid fuels consumption will presumably be supplied by domestic crude oil production (currently 5 MM bbl/d) and crude oil imports.

Figure 11 below shows the projected net import share of U.S. liquid fuels consumption from EIA's 2009 *Annual Energy Outlook*.

Figure 11. Net Import Share of U.S. Liquid Fuels Consumption in Three Cases (1990-2030)



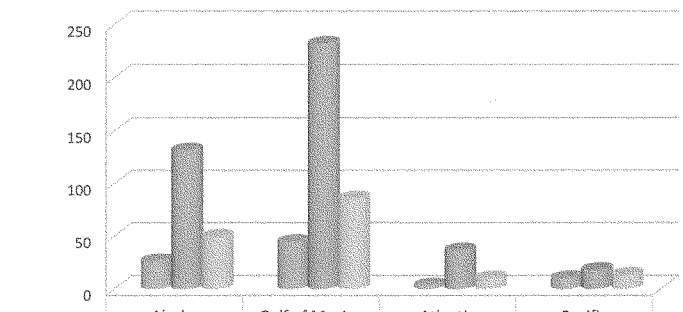
Source: EIA 2009 Annual Energy Outlook

In the high oil price scenario, the U.S. will be importing about one third of its liquid fuel needs from 2020 through 2030, equivalent to about 7 MM bbl/d. In the reference case, imports will account for 40-45% of liquid fuels consumption. In the low price scenario, imports will be relied upon to cover over half of the country's liquid fuels consumption.

Potential Resources and Federal Revenues

Should the federal government restrict further OCS exploration it will leave billions of barrels of oil and trillions of cubic feet of gas in the ground. Leaving these resources in the ground will not prevent equivalent quantities of oil and gas from being consumed; instead, unrealized production of oil and gas will largely be replaced by imports. It will also leave behind vast sums of potential revenues. The following figure shows MMS' estimates for undiscovered, economically and technically recoverable oil, gas, and NGL (natural gas liquid) reserves across the four segments of the OCS.

Figure 12. MMS Mean Estimate of OCS Resource Potential



	Alaska	Gulf of Mexico	Atlantic	Pacific
Oil (Bbls)	26.61	44.92	3.82	10.53
Gas (Tcf)	132.06	232.54	36.99	18.29
BOE (Bbls)	50.11	86.3	10.4	13.79

Source: MMS, Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf, 2006, http://www.mms.gov/revaldiv/PDFs/2006NationalAssessmentBrochure.pdf

It should be noted that MMS' estimates of undiscovered technically recoverable resources (UTRR) in the OCS for oil and gas have nearly doubled since 1996. MMS attributes the bulk of these gains to the

inclusion of deepwater resources, which have become increasingly accessible over the past decade due to technological advancements.[31]

The above figure contains MMS' mean estimates for potential reserves throughout the entire OCS (reserves are potentially higher or lower within a range of 124.68 billion BOE to 215.82 billion BOE).[32] MMS' estimates do not include several potential sources of oil and gas, namely resources requiring enhanced oil recovery techniques and unconventional resources such as "low permeability 'tight' reservoirs".

By the government's own estimates, the OCS contains an additional 160.5 billion BOE of *economically* and *technologically* recoverable resources, 55% of which are believed to be oil. There remains much upside to this estimate when one factors in the relatively high price of oil and the exclusion of unconventional "low permeability" resources which have seen rapid onshore growth since 2006 (e.g., shale gas). To put Figure 12 in perspective, the estimated oil reserves, if proven, would quintuple U.S. proven crude oil reserves, making the United States the world's fifth largest holder of proven reserves. The estimated oil reserves would enable the U.S. to produce an additional 4.4 MM bbl/d for 50 years – an 88% increase to current production.

What are Undiscovered OCS Resources Worth to the Federal Government?

Hydrocarbon production generates billions of dollars per year for the federal government.[33] The MMS (which is now being separated into three distinct agencies) has historically been responsible for collecting revenues from federal offshore production. These revenues typically come from three sources: royalty payments from energy production on federal OCS leases, bonus payments from lease auctions, and annual lease rental payments. The federal Government also collects revenues from oil and gas production in the form of corporate income taxes.

EPRINC has attempted to quantify the value of the revenue stream to the federal government (production royalties and federal corporate income taxes) which would be generated by the production of the resources in Figure 12, assuming production is spread evenly over 50 years. Such an estimate

[31] See appendix figure 2.
[32] BOE includes oil and natural gas with natural gas converted to a BTU equivalency with oil. It should be noted that any reserve estimate is inherently uncertain until a resource is discovered through the E&P process.
[33] See Appendix on past federal revenues.

contains many uncertainties and assumptions; however, it provides a reasonable and conservative estimate of the potential federal revenues in the OCS. This should help put the value of the country's OCS resources in perspective.

Table 2 below shows EPRINC's estimated federal take from royalties and federal income taxes generated by the production of the oil and gas resources delineated in Figure 12. Table 2 assumes production is spread equally over 50 years and is shown in both nominal undiscounted dollars and the present value of the federal take with a 5% and 10% annual discount rate. [34]

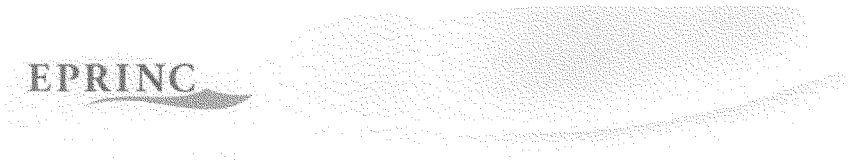
Table 2. Potential Federal OCS Revenues – Discounted and Undiscounted

Undiscounted (Nominal $):	Per Year ($ billion)	Total Revenues Generated Over 50 Years ($ billion)
Federal Income Taxes	*$23.31*	$1,163.63
Royalties	*$21.09*	$1,054.49
5% Discount Rate:		
Federal Income Taxes	-	$432.12
Royalties	-	$390.97
10% Discount Rate		
Federal Income Taxes	-	$232.02
Royalties	-	$209.92

Source: EPRINC Calculations

[34] EPRINC has used several assumptions to generate Table 2: A nominal price of $54.75 per BOE across the 50 year time period. (This figure assumes a constant oil price of $75/bbl and gas price of $5/mcf. It reflects a blend of 55% oil and 45% gas on a BTU basis.) Operator costs of $34/bbl, which includes operating expenses, exploration expenses, and DD&A (Depletion, Depreciation and Amortization). Pretax income of $20.75. An income tax rate of 35%, or $7.26/BOE. A royalty rate of 12%, or $6.57/BOE. (According to MMS data for 2001-2009, the effective royalty rate for oil was 12.26% and for gas it was 17.14%.)

The above table and previous figure illustrate the potential value of the OCS to the federal government (although such estimates come with a great deal of uncertainty). The unexplored portions of the OCS could increase federal revenues by hundreds of billions of dollars over the coming decades. Bonus bids and rental payments would generate tens of billions of dollars in additional revenues.



IV. Conclusion

In response to the BP spill, the Obama administration has placed a moratorium on deepwater drilling in the Gulf of Mexico and in all waters offshore Alaska. Although a recent court decision has struck down the moratorium, the administration likely can pursue alternative strategies to keep the moratorium in place through new regulatory programs. In addition, considerable evidence exists to suggest the moratorium is not likely to reduce net risk from offshore drilling and is likely increasing risk as losses in domestic production will be compensated through imports which will increase tanker activity. The reduction in exploration opportunities will also lead to the loss of well trained personnel and modern deepwater rigs as capital and labor begin to leave the Gulf to find work elsewhere. With regard to deepwater prospects, the world petroleum industry has more opportunities than can be addressed with existing crews and advanced drilling rigs. Opportunities denied in the Gulf of Mexico will see both capital and expertise move to other petroleum provinces.

Critics of efforts to continue U.S. deepwater production argue that the U.S. resource base is too small to make much difference in energy security. A recent analysis by Resources for the Future forecasts only modest increases in world oil prices as a result of delays in the development for deepwater oil and gas resources in U.S. waters.[35] Some environmental groups have argued that the BP spill demonstrates the need for a rapid transition to alternative fuels, despite the reality that any loss in U.S. domestic petroleum output will result in higher oil imports -- even under the most optimistic scenario of policy strategies that substitute alternative fuels for petroleum based liquid fuels.

The explicit or implicit conclusion from the critics of deepwater oil and gas development is that the risks are unacceptable given the rewards. These assessments miss the point. It is neither the size of the U.S. resource base, nor its modest consequences on world prices that is relevant, but rather the net value of the resource to the national economy. The critical issue for U.S. policy makers is how to preserve and capture the high value of the domestic oil and gas resource base for the American public and to do so at an acceptable risk.[36] As the administration moves forward to address the pace of deepwater development and regulatory programs which will regulate that development, careful attention must be

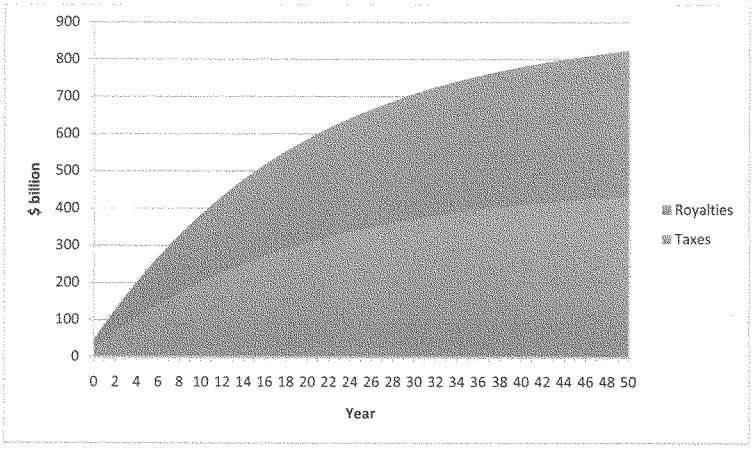
[35] See Stephen P.A. Brown, "Some Implications of Tightening Regulation of U.S. Deepwater Drilling," Resources for the Future, Backgrounder, June 2010. http://www.rff.org/Publications/Pages/PublicationDetails.aspx?PublicationID=21196
[36] An upcoming paper by EPRINC will address alternative regulatory approaches for managing the risks of offshore drilling operations.

given to not only those strategies that will minimize risk, but to approaches that will capture the high value of the resource for the American public.

EPRINC

V. Appendix

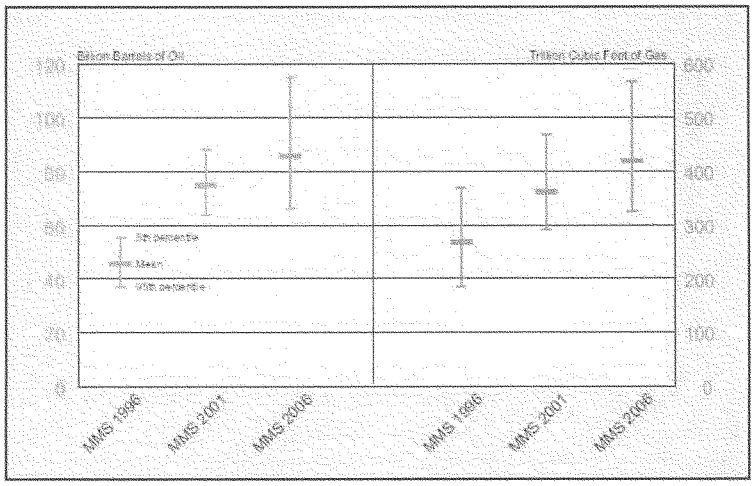
Appendix Figure 1. Net Present Value of Potential Federal OCS Revenues from Undiscovered Oil and Gas Reserves with a 5% Discount Rate.



Source: EPRINC Calculations and MMS Data. Assumes production is spread equally over 50 years.

EPRINC

Appendix Figure 2. MMS Estimates of OCS UTRR since 1996.



Source: MMS, http://www.mms.gov/revaldiv/PDFs/2006NationalAssessmentBrochure.pdf

Receipts and Distribution of Revenues from Offshore Oil and Gas Production

Revenues collected from offshore operations are distributed by MMS to various sectors of the Federal government, states, and several other groups and programs as directed by law. Fiscal Year (FY) 2008 disbursements set an MMS record at $23.5 billion, with the lion's share generated by oil and gas royalties and bonuses. Revenue distributions for 2009 was lower than 2008, but still substantial at over $10 billion. Table 1 below shows the disbursements for FY 2009 revenues.

EPRINC

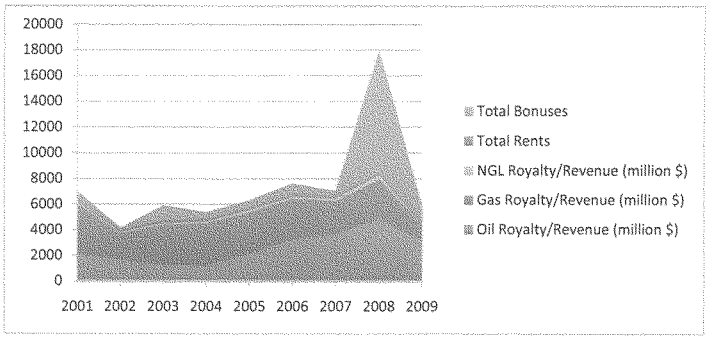
Appendix Table 1. 2009 MMS Disbursements

	Billion $
States, Counties and Parishes	$1.99
U.S. Treasury	$5.74
34 American Indian Tribes and Mineral Owners	$0.45
Reclamation Fund for Water Projects	$1.45
Land and Water Conservation Fund	$0.90
Historic Preservation Fund	$0.15
Total:	**$10.68**

Source: MMS: Oil, gas, and NGL royalties accounted for 71% of total FY 2009 disbursements.http://www.mrm.mms.gov/Intro/PDFDocs/20091116.pdf

Figure 3 below shows total revenues related to offshore oil and gas production. With the exception of 2008, (a year in which highly sought after leases in the Gulf of Mexico were auctioned, raising nearly $10 billion in bonuses alone) royalties, bonuses, and rents combined have generated revenues in a range of $4 to $8 billion annually since 2001.

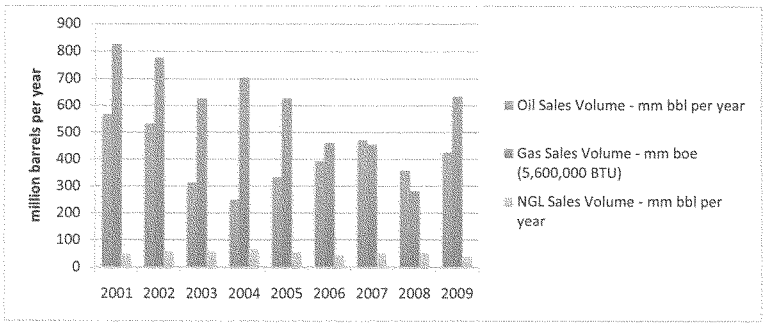
Appendix Figure 3. OCS Oil and Gas Revenues



Source: MMS Data

Figure 4 below shows annual OCS production of oil, gas, and NGLs (natural gas liquids). Gas has been converted to barrels of oil equivalent (boe) basis – 5.6 mm BTU (million British Thermal Units) of gas per barrel of oil.

Appendix Figure 4. Federal OCS Oil, Gas, and NGL Sales Volumes



Source: MMS Data, EPRINC Calculations

UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF LOUISIANA

HORNBECK OFFSHORE SERVICES, L.L.C ET AL.	CIVIL ACTION
VERSUS	NO. 10-1663
KENNETH LEE "KEN" SALAZAR ET AL.	SECTION "F"

ORDER

This Court having considered the Motion for Preliminary Injunction of Hornbeck Offshore Services, L.L.C., Bee Mar-Worker Bee LLC, North American Fabricators, L.L.C., Bee Mar LLC, Offshore Support Services, L.L.C., Martin Holdings, LLC, Bollinger Algiers, L.L.C., Sea Fluids, L.L.C., Bollinger Marine Fabricators, Inc., C-Port 2 LLC, Bee Mar-Bayou Bee LLC, Bollinger Amelia Repair, LLC, C-Port LLC, Fourchon Heavy Lift, L.L.C., C-Innovation, Bee Mar-Bee Hive LLC, Bee Mar-Queen Bee LLC, Bollinger Shipyards, Inc., Clean Tank, LLC, Bee-Mar-Honey Bee LLC, Tampa Ship, L.L.C., Bee Mar-Busy Bee LLC, Bee Mar Crews LLC, Bee Mar-Bumble Bee LLC, Bollinger Texas City, LP, Bollinger Calcasieu, LLC, Bollinger Shipyards Lockport, L.L.C., Bollinger Quick Repair, L.L.C., Bollinger Morgan City, L.L.C., Bollinger Gretna, L.L.C., Bee Mar-Bee Sting LLC, North American Shipbuilding, L.L.C., Bollinger Fourchon, L.L.C., Gulf Ship, L.L.C., Alpha Marine Services, L.L.C., Nautical Solutions LLC, Nautical Ventures, L.L.C., Reel Pipe LLC, as well as the verified Supplemental and Amended Complaint for Declaratory and

Injunctive Relief, Memorandum of Law in Support of Motion for Preliminary Injunction and after receiving evidence at a hearing on June 21, 2010, hereby finds: (1) that plaintiffs are substantially likely to prevail on the merits of their claim for the government defendants' violations of the Outer Continental Shelf Lands Act and its implementing regulations; (2) that, in the absence of the relief requested, plaintiffs will incur immediate and irreparable harm to business including the irretrievable loss of vessels' useful life, loss of crews that have long been associated with their particular vessels, loss of shore-side teams and disruption of longstanding contractual relationships with offshore service vendors and other satellite services for the operation of its fleet, all of which is not subject to calculation; (3) that the irreparable harm to plaintiffs should the Court decline to grant the application for the relief requested outweighs the harm which the granting of such relief may cause to any legitimate interests of defendants; and (4) that the entry of this Order will serve the interests of justice and the public interest. Accordingly,

IT IS ORDERED that Honorable Kenneth Lee "Ken" Salazar, in his official capacity as Secretary, United States Department of the Interior; United States Department of the Interior; Honorable Robert "Bob" Abbey, in his official capacity as Acting Director, Minerals Management Service; and the Minerals Management Service, their servants, agents, successor agencies, and employees, and all

persons in active concert or participation with them, who receive actual Notice of this Preliminary Injunction (collectively "defendants"), and until a full trial on the merits is had, are hereby immediately prohibited from enforcing the Moratorium, entitled "Suspension of Outer Continental Shelf (OCS) Drilling of New Deepwater Wells," dated May 28, 2010, and NTL No. 2010-N04 seeking implementation of the Moratorium, as applied to all drilling on the OCS in water at depths greater than 500 feet;

IT IS FURTHER ORDERED that defendants shall file with this Court and serve on plaintiffs within 21 days from the date of entry of this Preliminary Injunction a report in writing setting forth in detail the manner and form in which defendants have complied with the terms of this Preliminary Injunction.

New Orleans, Louisiana, June 22, 2010.

MARTIN L. C. FELDMAN
UNITED STATES DISTRICT JUDGE

Shallow Water
Energy Security Coalition

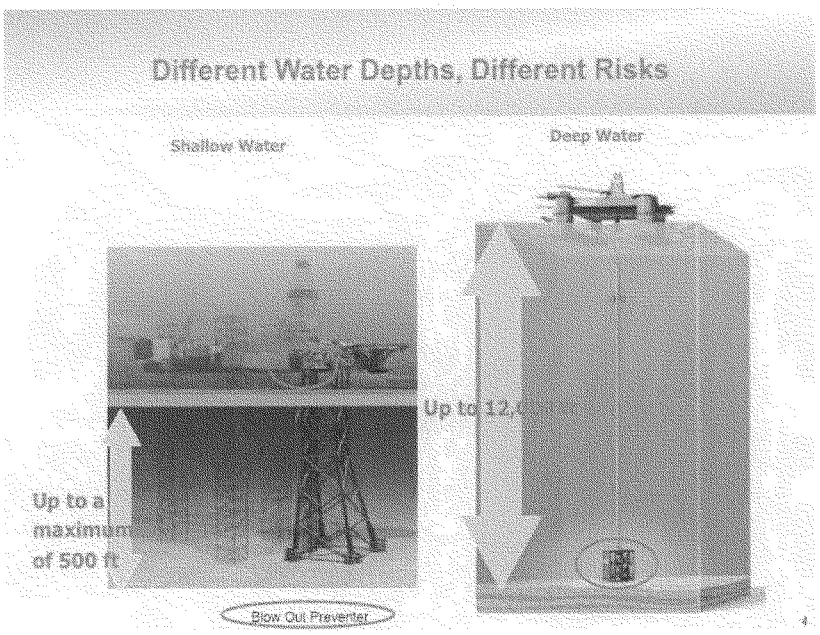
Deep Water Concerns Don't Justify Shallow Water Restrictions

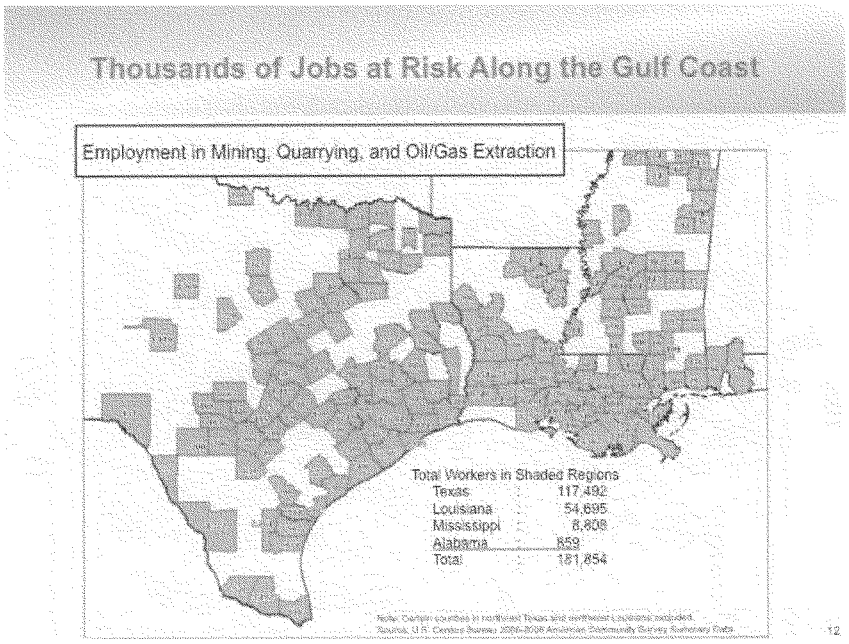
About the Coalition

The Shallow Water Energy Security Coalition comprises a group of companies - Hercules Offshore, Seahawk Drilling, the Rowan Companies, Ensco, Hornbeck Offshore and Delta Towing - that provide shallow-water offshore contract drilling and related services. The Coalition has been established to enhance the understanding of shallow-water drilling as policy makers develop legislative and regulatory responses to recent events.

Members

What is Shallow Water Drilling?





Safety Overview

For more than five decades, offshore shallow water drilling operations have been conducted safely and with minimal incident. The participants in these drilling activities have developed significant experience, expertise and oversight capabilities to conduct shallow water operations to manage risk, and such operations involve well-developed and simpler processes for the extraction of energy resources. Notably:

- **Surface BOPs**. Jackup and platform rigs in shallow water employ "blow-out preventers" (BOPs) above the surface of the water. These surface BOPs are accessible for constant inspection, maintenance and repair, and, in emergencies, can be controlled either remotely or by physical or manual manipulation.

- **Clean natural gas**. Shallow water drilling sites predominantly involve clean natural gas resources with less environmental risks.

- **Predictable and mature reservoirs.** Wells in the shallow water regions are drilled in predictable and mature reservoirs.

- **Lower pressures.** A large percentage of the wells drilled by shallow water rigs require positive external stimulation to produce the flow of oil or gas, significantly limiting risk of loss of control.

Physical and operational factors make shallow water drilling safe, reliable, and environmentally sound:

- Predominantly Natural Gas
- Known and Predictable Formations
- Mature Reservoirs
- Traditional and Proven Well Control Methods
- BOPs on Surface: allows easy inspection, maintenance, and repair, and places all pressure below the device
- Manual or Remote Control of BOP
- Simple Controls
- No Marine Riser
- Ambient Temperatures at BOP; unaffected by subsea currents and conditions

Job Losses and Other Economic Impacts of the Drilling Moratorium

Over 180,000 people are directly employed in the oil and gas and mining industries along the Gulf Coast. Even a short-term, temporary moratorium on new drilling activities in the Gulf will have significant economic impacts on the Gulf Coast region. Over 7,000 jobs among the shallow water operators in this coalition would be directly impacted. Furthermore, in 2009, the Outer Continental Shelf off the coast of Louisiana generated $4.9 billion in federal revenue and $29 million in state revenue from oil and gas leases.

Domestic Energy Needs: The Nation's economy depends upon the steady and dependable development of domestic oil and gas resources to provide for energy infrastructure and security The need for energy security was affirmatively and publicly recognized by the President, when he stated that the U.S. should "tap more of our substantial natural gas reserves" because of the need for "delivering clean natural gas and creating good jobs in the process."

Request: Our Nation requires the safe, effective and steady development of its offshore oil and gas resources. Shallow water drilling operations meet those conditions. It is respectfully requested that the Congress urge the Administration to process and issue new shallow water drilling permits (with the associated application of any new reasonable and appropriate safeguards).

Website: http://www.shallowwaterenergy.org/

The White House

Office of the Press Secretary

For Immediate Release
May 22, 2010

Executive Order-- National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. Establishment. There is established the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (the "Commission").

Sec. 2. Membership. (a) The Commission shall be composed of not more than 7 members who shall be appointed by the President. The members shall be drawn from among distinguished individuals, and may include those with experience in or representing the scientific, engineering, and environmental communities, the oil and gas industry, or any other area determined by the President to be of value to the Commission in carrying out its duties.

(b) The President shall designate from among the Commission members two members to serve as Co Chairs.

Sec. 3. Mission. The Commission shall:

(a) examine the relevant facts and circumstances concerning the root causes of the Deepwater Horizon oil disaster;

(b) develop options for guarding against, and mitigating the impact of, oil spills associated with offshore drilling, taking into consideration the environmental, public health, and economic effects of such options, including options involving:

(1) improvements to Federal laws, regulations, and industry practices applicable to offshore drilling that would ensure effective oversight, monitoring, and response capabilities; protect public health and safety, occupational health and safety, and the environment and natural resources; and address affected communities; and

(2) organizational or other reforms of Federal agencies or processes necessary to ensure such improvements are implemented and maintained.

(c) submit a final public report to the President with its findings and options for consideration within 6 months of the date of the Commission's first meeting.

Sec. 4. Administration. (a) The Commission shall hold public hearings and shall request information including relevant documents from Federal, State, and local officials, nongovernmental organizations, private entities, scientific institutions, industry and workforce representatives, communities, and others affected by the Deepwater Horizon oil disaster, as necessary to carry out its mission.

(b) The heads of executive departments and agencies, to the extent permitted by law and consistent with their ongoing activities in response to the oil spill, shall provide the Commission such information and cooperation as it may require for purposes of carrying out its mission.

(c) In carrying out its mission, the Commission shall be informed by, and shall strive to avoid duplicating, the analyses and investigations undertaken by other governmental, nongovernmental, and independent entities.

(d) The Commission shall ensure that it does not interfere with or disrupt any ongoing or anticipated civil or criminal investigation or law enforcement activities or any effort to recover response costs or damages arising out of the Deepwater Horizon explosion, fire, and oil spill. The Commission shall consult with the Department of Justice concerning the Commission's activities to avoid any risk of such interference or disruption.

(e) The Commission shall have a staff, headed by an Executive Director.

(f) The Commission shall terminate 60 days after submitting its final report.

Sec. 5. General Provisions. (a) To the extent permitted by law, and subject to the availability of appropriations, the Secretary of Energy shall provide the Commission with such administrative services, funds, facilities, staff, and other support services as may be necessary to carry out its mission.

(b) Insofar as the Federal Advisory Committee Act, as amended (5 U.S.C. App.) (the "Act"), may apply to the Commission, any functions of the President under that Act, except for those in section 6 of the Act, shall be performed by the Secretary of Energy in accordance with guidelines issued by the Administrator of General Services.

(c) Members of the Commission shall serve without any additional compensation for their work on the Commission, but shall be allowed travel expenses, including per diem in lieu of subsistence, to the extent permitted by law for persons serving intermittently in the Government service (5 U.S.C. 5701-5707).

(d) Nothing in this order shall be construed to impair or otherwise affect:

(1) authority granted by law to a department, agency, or the head thereof; or

(2) functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(e) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

BARACK OBAMA

THE WHITE HOUSE,
May 21, 2010.

Membership

Co-Chairs:

- Former two-term Florida governor and former U.S. Sen. Bob Graham
- Former Administrator of the Environmental Protection Agency William K. Reilly

Additional Members:

- Frances G. Beinecke: President of the Natural Resources Defense Council (NRDC), a non-profit corporation that works to advance environmental policy in the United States and across the world.
- Donald Boesch: President of the University of Maryland Center for Environmental Science, where he is also a professor of Marine Science and vice chancellor for Environmental Sustainability for the University System of Maryland.
- Terry D. Garcia: Executive vice president for mission programs for the National Geographic Society.
- Cherry A. Murray: Appointed dean of the Harvard School of Engineering and Applied Sciences (SEAS) and the John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences in July 2009, and the past president of the American Physical Society.
- Frances Ulmer: Chancellor of the University of Alaska Anchorage (UAA), Alaska's largest public university.

The Washington Post

For now, government and BP working together to assess oil spill damage

By Juliet Eilperin
Washington Post Staff Writer
Sunday, July 4, 2010; A12

In recent weeks, the Obama administration has sought to distance itself from BP in handling the Gulf of Mexico oil spill -- with one notable exception: When it comes to assessing how badly the spill has harmed the gulf, the two sides are working hand in hand.

Their shared goal? To calculate the incalculable: how much it will cost to restore the gulf to its pre-spill state.

But this close collaboration between federal and state authorities and BP -- which is routine procedure under a legal process known as the Natural Resource Damage Assessment (NRDA) -- has begun to spark concerns among lawmakers and some environmentalists.

"I want this to be independent, for the credibility of the information," said Sen. Ben Cardin (D-Md.), who as chair of the Environment and Public Works Subcommittee on Water and Wildlife will hold hearings this month on the issue.

The collaborative approach, established under the 1990 Oil Pollution Act, marks a sharp departure from the 1989 Exxon Valdez spill, where the federal government kept the oil company at arm's length. Exxon hired its own boats and experts, who followed state and federal officials at a distance, replicating the tests they believed were being done so they could provide a rival analysis.

Stan Senner, who served as Alaska's restoration program manager after the Valdez spill and now directs conservation science for the Ocean Conservancy, said the current collaboration will likely stop as soon as federal and state officials push for a comprehensive overview of how the accident transformed the gulf.

"I would predict in the end that the relationship will break down, and the government and BP will go their separate ways," Senner said, adding that oil companies tend to focus on a spill's short-term impact.

For the moment, though, BP's representatives weigh in on decision-making in every key aspect, from shoreline surveys to designing scientific studies.

BP spokeswoman Anne Kolton wrote in an e-mail that the company is working with state and federal officials "conducting joint sampling to gather information about the condition of the environment before the spill and to establish the environmental impacts of the spill and extent of restoration that is required."

In most cases, BP is represented by employees of Entrix, an environmental consulting firm it

contacted within hours of the Deepwater Horizon explosion. Entrix is one of two major U.S. consulting firms that specialize in assessing an oil spill's impact. BP provides the boats used to conduct surveys and even the snacks consumed on board; it funds the scientific studies that have been launched by government agencies; and eventually, the company will have to pay for the time of every government official and contractor involved. At the moment, roughly 100 Entrix employees are working alongside more than 250 officials and contractors from state and federal agencies.

To some extent, including BP in the process represents a pragmatic calculation: Federal officials say it helps ensure that the oil company will pay for both the evaluation and the massive task of restoring the region to health. NRDA's goal is to get the responsible party to pay for restoration, and that's more likely to happen if BP officials agree on the extent of the environmental harm the government says the company has wrought.

"If they pay the bills, they're welcome at the table," said Peter Tuttle, an environmental contaminant specialist with the U.S. Fish and Wildlife Service who is coordinating NRDA activities among Interior Department bureaus. "They do have a role, they do have a place."

Tony Penn, deputy chief of the National Oceanic and Atmospheric Administration's assessment and restoration division, emphasized that this collaboration does not mean the oil company is steering the investigation.

"That doesn't give BP or Entrix the right to shape the course of our assessment or the decisions that are ultimately the government's responsibility," Penn said in an interview.

The unprecedented assessment seeks to answer questions that will ultimately determine how much BP pays for restoration: How degraded were the region's marshes before the oil hit? Which species of birds and marine mammals were thriving before the accident, and which were struggling? How are they doing now, and how will they fare decades from now? The fact that oil has continued to spew from the well for 2 1/2 months only complicates the task. Only one answer is certain: The scientific investigation will take years to complete.

"I don't think we will fully understand the impact of the spill for decades," Tuttle said, adding that state and federal authorities will have to make their "best guess" about the extent of damage to reach a fair settlement with BP. "We're really motivated to get restoration going as soon as possible. There is an incentive to work toward settlement here -- certainly litigation isn't in anyone's best interest."

Dozens of teams are fanning out across the gulf, surveying beaches, sampling everything from water to sediment to tissues from mussels and fish. Each group includes at least one federal official, one state official and one representative from Entrix.

For the most part, the collaboration is working smoothly: In late May, Barry Stuedemann, an Entrix senior consultant and wetlands specialist, and one of his colleagues, Winston Rutherford, set out on an air boat off Grand Isle, La., with officials from NOAA, Fish and Wildlife and the Louisiana Department of Natural Resources to survey the marshes.

The team stopped at regular intervals to examine everything from what sort of oil was floating in the water to how many birds were flying overhead and whether small snails were thriving on vegetation.

At every stop, each team representative signed off on the data entered on the official assessment sheet so no one could contest it later.

"Eventually you're building up a line of evidence," explained Troy Baker, regional resource coordinator at NOAA's assessment and restoration division in Baton Rouge, adding that if they later revisit the area and find "you have a lot of dead birds and have a lot of stranded marine mammals, you're starting to build a picture of the overall threat."

Sherry Krest, a Fish and Wildlife environmental contaminant specialist based in Annapolis who joined in the Grand Isle expedition, said "there's an art and a science" to conducting an NDRA, and that "the negotiation is more of an art."

In the end, Cardin said, he will be watching to make sure the Obama administration doesn't make too many concessions for the sake of getting a speedy financial settlement.

"The challenge is whether the federal agencies are up to evaluating the environmental damage," he said, "and whether we will have to patience to see this through, and get the full results before we close the books on this."

Post a Comment

View all comments that have been posted about this article.

Comments that include profanity or personal attacks or other inappropriate comments or material will be removed from the site. Additionally, entries that are unsigned or contain "signatures" by someone other than the actual author will be removed. Finally, we will take steps to block users who violate any of our posting standards, terms of use or privacy policies or any other policies governing this site. Please review the full rules governing commentaries and discussions. You are fully responsible for the content that you post.

© 2010 The Washington Post Company

The Washington Post

Oil dispersant does not pose environmental threat, early EPA findings suggest

By Juliet Eilperin
Wednesday, June 30, 2010; 9:01 PM

The Environmental Protection Agency released its first round of testing results on the toxicity of oil dispersants Wednesday, saying initial findings suggest that the dispersant BP is using in the Gulf of Mexico is less harmful than oil and does not pose as significant an environmental threat as the spill does.

In a telephone news conference, EPA's assistant administrator for research and development, Paul Anastas, emphasized that it was "too early to draw conclusions" about the long-term impact of Corexit 9500, the dispersant BP has applied to break up oil spewing from the downed Deepwater Horizon rig. The agency has yet to analyze the impact of dispersants mixed with oil and instead just tested the application of eight types of dispersants to marine animals in a lab setting.

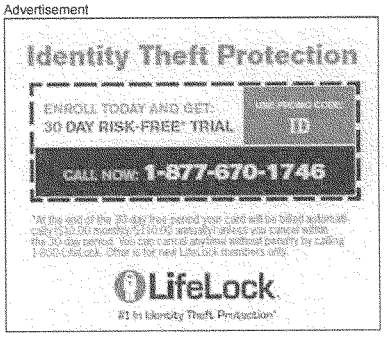
"We need more data to decide whether it's necessary to switch dispersants," Anastas said, adding: "All of the dispersants are roughly equal in toxicity, and all of them are less toxic than oil. . . . It's important to remember that oil is enemy number one in this crisis."

But environmentalists questioned the kind of testing EPA conducted, noting that its scientists applied the chemical compounds to mature marine life and then examined the impact either 48 or 96 hours later, instead of observing what would happen after repeated applications.

Alaska-based activist Riki Ott noted that "fresh oil and fresh dispersant are being released constantly" in the gulf, so the lab results could not capture that sort of repeated exposure. "Right off the bat it's more toxic than a standard, static test," Ott said, adding that EPA officials did not test the impacts on "young life forms" such as juveniles and larvae, which are more vulnerable to toxic chemicals.

Richard Denison, a senior scientist at the Environmental Defense Fund, wrote in a blog post that the lab results did not shed new light on dispersants' impact, in part because they were tested in isolation.

Advertisement



The Washington Post

Oil dispersant does not pose environmental threat, early EPA findings suggest

"So, what did we learn today? Not too much new," he wrote, adding, "What is most remarkable about the data EPA released today is how similar they are to the industry-supplied data on the dispersants by themselves that were previously made available on EPA's Web site."

Researchers tested the dispersants on mysid shrimp and inland silverside fish. None of the dispersants appeared to disrupt the animals' endocrine activity, according to the results, and EPA issued a statement saying it found "JD-2000 and Corexit 9500 were generally less toxic to small fish and JD-2000 and SAF-RON GOLD were least toxic to mysid shrimp."

In late May, EPA directed BP to find another, less toxic dispersant than Corexit 9500, but the company refused to do so, arguing that it could not find an adequate substitute in sufficient quantities. Both EPA and the Coast Guard instructed BP to reduce its use of dispersants by 75 percent, and the company has cut its application of Corexit 9500 by 68 percent from its peak over the past month.

EPA will embark on a second round of testing to evaluate the toxicity of different concentrations of Louisiana Sweet Crude Oil alone and combinations of the oil with each of the eight dispersants.

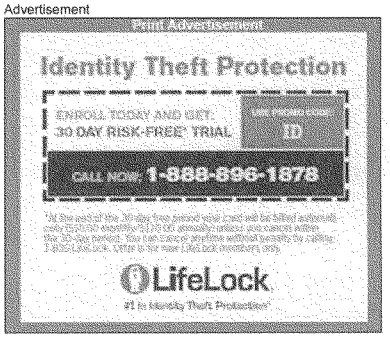
"It's crucial that we get this other data on the dispersant with the oil," Anastas said, adding that the agency also needs to examine issues such as why it has no maximum toxicity threshold for products that make it onto the federal government's list of accepted dispersants. "This tragedy, this event, at the scope and the scale of this event, has raised important questions about how these previously existing regulations need to be reexamined."

He added that while questions have been raised about whether the dispersants are settling on the sea floor or remaining suspended in the water, testing suggested that they break down "within weeks" when used on the surface and "within weeks or months" when applied to the colder waters below.

"We are seeing no data that there are dispersants that are persisting in the water column," he said.

Still, Ott questioned why the federal government was allowing such widespread

Advertisement



The Washington Post

Oil dispersant does not pose environmental threat, early EPA findings suggest

use of chemicals in the ocean.

"What we need to do in an oil spill situation is do no more harm," she said. "Putting toxic solvents on top of an already toxic substance is doing more harm."

An EPA spokesman, Brendan Gilfillan, said, "The tests conducted by EPA -- which involved two species which are native to the gulf -- were based on standard scientific acute toxicity test protocols."

View all comments that have been posted about this article.

Advertisement

Boost your bottom line. Start today with The Wall Street Journal Online Small Business Channel.

Dow Jones Reprints: This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers, use the Order Reprints tool at the bottom of any article or visit www.djreprints.com

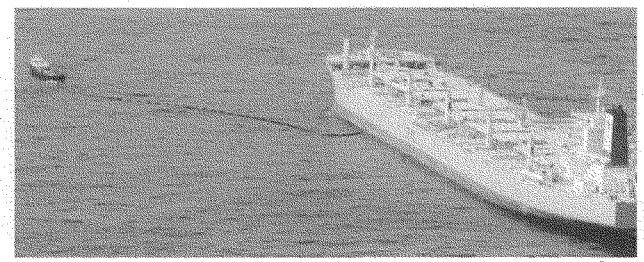
See a sample reprint in PDF format. Order a reprint of this article now

THE WALL STREET JOURNAL.
WSJ.com

BUSINESS | JULY 5, 2010

Obama Decried, Then Used, Some Bush Drilling Policies

By NEIL KING JR. And KEITH JOHNSON



Reuters

Choppy seas have limited the ability of 'skimmers' to collect oil in the Deepwater Horizon spill. Above, TMT Group's converted super tanker 'A Whale' in the Gulf on Sunday.

Less than four months after President Barack Obama took office, his new administration received a forceful warning about the dangers of offshore oil drilling.

The alarm was rung by a federal appeals court in Washington, D.C., which found that the government was unprepared for a major spill at sea, relying on an "irrational" environmental analysis of the risks of offshore drilling.

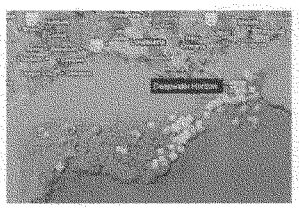
The April 2009 ruling stunned both the administration and the oil industry, and threatened to delay or cancel dozens of offshore projects in Alaska and the Gulf of Mexico.

Despite its pro-environment pledges, the Obama administration urged the court to revisit the decision. Politically, it needed to push ahead with conventional oil production while it expanded support for renewable energy.

Risky Design

Another reason: money. In its arguments to the court, the government said that the loss of royalties on the oil, estimated at almost $10 billion, "may have significant financial consequences for the federal government."

The U.S. Court of Appeals reversed its decision and allowed drilling in the Gulf to proceed--including on BP PLC's now-infamous Macondo well, 50 miles off the Louisiana coast.



See details on the designs of deepwater Gulf wells.

BP's daily spend on the Gulf of Mexico oil spill continues to grow through the crisis. Here is the daily spending in millions of dollars.

More photos and interactive graphics

More

- BP Won't Issue New Equity
- Big Skimmer Hindered by Weather; Oil Hits Texas
- Libya Oil Chief Calls BP a Bargain
- Oil Spill Loan Rises to $9 Billion

The Obama administration's actions in the court case exemplify the dilemma the White House faced in developing its energy policy. In his presidential campaign, President Obama criticized the Bush administration for being too soft on the oil industry and vowed to support greener energy forms.

But, once in office, President Obama ended up backing offshore drilling, bowing to political and fiscal realties, even as his administration's own scientists and Democratic lawmakers warned about its risks.

After the Macondo well blew out, sinking the Deepwater Horizon rig and causing a catastrophic spill, Mr. Obama said his administration should have been more vigilant in handling the oil industry. "More needed to be done, and more needs to be done" to tighten oversight, he told reporters recently.

Still, the administration defends its intervention in the court case, and says the ruling made it look more cautiously at whether to open new areas to offshore drilling. It pins blame on the Bush administration for pursuing a policy for deep-offshore drilling "that was driven by one principle: open everything," said White House spokesman Ben LaBolt.

"Over the course of the year," he said, "the Interior Department conducted a review process to produce an offshore strategy that closed a number of environmentally sensitive areas from exploration and put in place a process to explore where additional production could take place." Since the Deepwater Horizon explosion, he added, "we are implementing top to bottom reforms to ensure that a disaster like this is never repeated."

Michel Olsen, a former official in the Bush Interior Department, defended the previous administration's offshore approach. "Our policy was founded on the requirements of the law," he said. "It wasn't just to give industry whatever it wanted."

Mr. Obama inherited a slew of energy challenges when he took office in early 2009. The agency within the Interior Department charged with overseeing the oil and gas industry, the Minerals Management Service, was reeling from scandals. An inspector general's report months earlier had described rigged contracts, drug use and sex between MMS employees and industry representatives.

Along with cleaning up the MMS, Interior had to wrestle with a five-year drilling plan the Bush administration had filed just days before leaving office. The plan sought to open the waters in most of the U.S. outer-continental shelf to oil and gas exploration between 2010 and 2015. The push into ever deeper waters in the Gulf, which began in earnest in the mid-1990s, reflected the reality that drilling in shallower waters was largely tapped out.

To buy time and work out its own policy preferences, the Obama administration reopened the Bush plan for public comment.

The tensions in the administration's own deliberations were clear from the start. Mr. Obama's Interior secretary, Ken Salazar, quickly picked a fight with the oil industry when he retroactively withdrew 77 oil-and-gas lease sales in Utah that the Bush administration had approved in its final weeks. The move drew

Associated Press

The West Atlas oil rig on fire last November off Australia's coast.

applause from environmentalists and criticism from oil companies.

In April 2009, Mr. Salazar went on a four-city tour to discuss the nation's offshore energy future. His first stop: A solar-powered convention center in Atlantic City, N.J., where he touted the potential of offshore wind power to supply clean electricity to the eastern seaboard. Boosting offshore renewable energy had become a "top priority" for Interior at the express wish of Mr. Salazar, who had issued a secretarial order to that effect just three weeks earlier.

But, before the packed house of politicians, activists and interested citizens, Mr. Salazar also defended the need for more offshore oil and gas. "The reality is that we have oil and gas potential in significant ways, especially in" the Gulf of Mexico, he said, according to a video of the event.

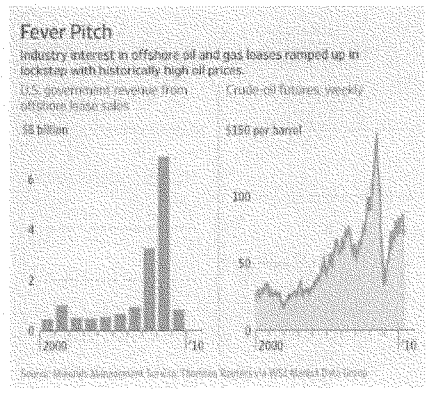
The administration was apprehensive about expanding offshore drilling. But it also hoped to get a legislative package on climate change through Congress. At the center of the bill was a controversial and potentially expensive provision requiring companies to acquire permits to release carbon dioxide.

To navigate Capitol Hill, the administration needed to strike a balance between the "green energy" projects favored by environmentalists and liberals, and the traditional oil and gas projects favored by Republicans, whose support would be crucial in the Senate. Continuing to promote offshore drilling was part of that bargain.

But the federal appeals court decision, which came just days after Mr. Salazar's tour, threatened to throw a wrench in that process. The case was brought two years earlier by indigenous Alaskans and a coalition of environmental groups. It challenged a Bush-era plan to lease large chunks of offshore Alaska to oil drilling.

The groups argued the strategy didn't adequately account for the whole range of environmental perils raised by oil drilling on the outer shelf.

The appeals court agreed, ruling that the federal program was based on "irrational" analysis. The government's own assessment, the court found, weighed only the impact of oil washing up on shorelines. In a foreshadowing of the post-spill debate, the court noted that the analysis didn't address the impact of a significant spill further out at sea.



At first, Mr. Salazar used the ruling as a way to draw a distinction between his approach and that of the Bush White House. Blasting what he called "the previous administration's failure to apply the law," Mr. Salazar said in a statement that he planned to "fix the problems" the court identified. He would do so not by firing managers or shaking up MMS, but by subjecting offshore drilling to heightened scrutiny. Those fixes, he said, would "put oil and gas leasing decisions back on a firm scientific footing."

Still, the ruling presented an immediate problem. It threw into uncertainty hundreds of millions of dollars in drilling projects already under way in the Gulf—the source of about a third of the country's domestic oil

supply and the lifeblood of the regional economy. In addition, the government had another big lease sale for Gulf offshore acreage coming up in August.

In its response, the government noted that the oil and gas from approved exploration and drilling projects had a combined value of $7.65 billion. Among the existing leases, the petition noted, was the March 2008 Lease Sale #206. That deal included BP's acquisition, for $34 million, of the acreage encompassing the Macondo well.

Voiding existing leases, the Justice Department argued on behalf of Interior, would cause "severe and unnecessary disruptions" to oil and gas activity in the Gulf of Mexico, and could push companies and drilling rigs toward other nations with less onerous regulations.

A day after the administration's petition, the industry's main lobbying group, the American Petroleum Institute, made its own case echoing the government's arguments. "The significance of [Gulf of Mexico] activities under the five-year program cannot be overstated," the API argued.

In late July, the D.C. appeals court responded to the government petition by clarifying its earlier ruling. Only drilling in Alaska, the case's main focus, would be stopped. Activity in the Gulf of Mexico could continue while the administration carried out a new environmental analysis to address the court's concerns about deep-water spills.

View

Associated Press

In February, Interior Secretary Ken Salazar, left, toured Nantucket Sound for a proposed offshore wind energy project.

Mr. Salazar began to express confidence that he had resolved the problems within the Minerals Management Service that had led to poor oversight of offshore drilling. In September, in testimony before the House Natural Resources Committee, he listed the steps he had taken to make sure ethical lapses "don't occur in the future."

Still, inside the administration there was debate about the right policy for offshore drilling.

On Sept. 21, Jane Lubchenco, Mr. Obama's handpicked head of the National Oceanic and Atmospheric Administration, filed a lengthy comment on the Bush-era drilling plan still under review. She cited several concerns, including the government's tendency to underestimate the likelihood of oil spills and to downplay their potential environmental impacts. She also noted the government's penchant for cribbing from older, often outdated, environmental analyses.

She cited a Congressional Research Service study from earlier in the year. "The threat of oil spills raises the question," the report said, "of whether U.S. officials have the necessary resources at hand to respond to a major spill."

The administration's struggle to find middle ground on its offshore policy came to a head in Senate hearings in mid-November, just weeks after a drilling rig off the coast of Australia had suffered a deepwater blowout, creating an oil leak that would go on for months.

Sen. Robert Menendez (D-NJ) pointed to an enlarged photo of the Australian rig in flames and asked rhetorically whether he was "just being old-fashioned" to worry that a similar blowout could occur in the U.S.

Heard on the Street

BP May Need Radical Rethink

MMS Deputy Director Walter Cruickshank assured the panel that such fears were misplaced. The Australian rig wouldn't have been licensed to operate in U.S. waters, he said. The U.S., he said, had "what we believe is the most aggressive oil spill contingency planning...in the world."

On March 31, Mr. Salazar joined President Obama in a hangar at Andrews Air Force Base in Maryland to announce their new offshore policy. Standing before an F-18 "Green Hornet" fighter jet designed to run partly on

bio-fuel, Mr. Obama told the audience that "we'll employ new technologies that reduce the impact of oil exploration...And we'll be guided not by political ideology, but by scientific evidence."

The plan was designed in part to allay the federal court's concerns. To satisfy the court's demand for better "balance," it included a broader environmental analysis, examining the impact of spilled oil on marine life and not just on shorelines.

It also ranked prospective drilling areas in terms of their environmental sensitivity. The Central Gulf of Mexico, where BP's Macondo well was based, topped the "most sensitive" column. It also scrapped a handful of planned lease sales in Alaska.

But the proposal kept much of the Bush plan intact, and even added for the first time new lease sales off the coast of Virginia.

It also relied extensively on environmental impact analyses carried out in April 2007 that the court had found wanting.

The 2007 document said "large oil spills associated with [outer continental shelf] activities are low-probability events." The "most likely size" of a serious spill, that report concluded, would total 4,600 barrels--a fraction of what the Deepwater Horizon continues to allow into the water every day.

Kieran Suckling, executive director of the Center for Biological Diversity, which brought the original lawsuit, said their court victory wound up changing little. "Salazar, and by extension Obama, have pursued the same offshore program as the Bush administration, even while playing a smoke-and-mirrors game," he said.

Two weeks before the Deepwater Horizon explosion, President Obama offered a plug for wider offshore exploration. "Oil rigs today generally don't cause spills," he told a gathering in Charlotte, N.C. "They are technologically very advanced."

On April 20, with the blowout on the Deepwater Horizon drilling rig, everything changed.

The Macondo spill has forced the administration to take many of the steps it dismissed as draconian last summer in the wake of the appeals court ruling. On May 27, Mr. Salazar canceled a lease sale in the Gulf set for August. He ordered that all lease sales set for 2011 had to face tougher environmental scrutiny.

And he ordered a six-month moratorium on all drilling activity in the Gulf of Mexico. That moratorium was struck down as arbitrary by a federal judge in New Orleans in June, but Mr. Salazar has fought back, insisting the moratorium remain in place. So far the judge's ruling stands.

Write to Neil King Jr. at neil.king@wsj.com and Keith Johnson at keith.johnson@wsj.com

Copyright 2009 Dow Jones & Company, Inc. All Rights Reserved
This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our Subscriber Agreement and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-0008 or visit www.djreprints.com

Dow Jones Reprints: This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers, use the Order Reprints tool at the bottom of any article or visit www.djreprints.com

• See a sample reprint in PDF format. • Order a reprint of this article now

THE WALL STREET JOURNAL.
WSJ.com

BUSINESS | JULY 6, 2010

Revived Push for Drilling Ban

Administration: Moratorium Would Lower Risk of Another Deepwater Disaster

By STEPHEN POWER And ANN ZIMMERMAN

Getty Images

Dund Pham rests Tuesday on his boat in Cocodrie, La. The boat was hired to help with oil-skimming operations but sidelined by bad weather.

The Obama administration asked a federal appeals court Tuesday to reinstate a moratorium on deepwater petroleum drilling, saying it is needed to reduce the chance of a second spill similar to the one now spewing crude into the Gulf of Mexico.

The fallout from that spill, the result of an April 20 explosion on a drilling rig leased by BP PLC, was evident in the Gulf region Tuesday, as tar balls lapped onto the Texas coast and oil was sighted in New Orleans's Lake Pontchartrain.

The developments show how the spill continues to invade new areas along the Gulf, harming coastal marshes and endangering fish and wildlife.

In a filing with the U.S. Court of Appeals for the Fifth Circuit, Justice Department officials said a six-month suspension of drilling in more than 500 feet of water is in the "long-term public interest of the nation," and is needed to give the Interior Department time to develop and implement new regulations to prevent another spill.

The filing was in response to a federal judge's decision in June to block the moratorium, saying the Interior Department had trivialized the economic impact of the temporary ban.

1:37

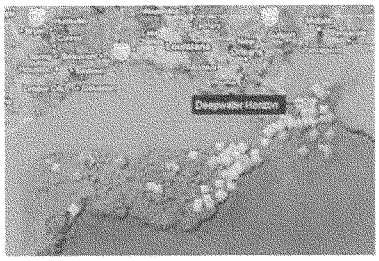
The state of Mississippi has ordered eight French skimmers with pumps, turbines and sweeping arms to help in the Gulf of Mexico cleanup. And a "super skimmer" could be a savior. Video courtesy of Reuters.

In the filing, the administration cited not only the "catastrophic impacts" of the accident on the Deepwater Horizon drilling rig but also the risk of a second spill, "which industry has shown limited ability to contain."

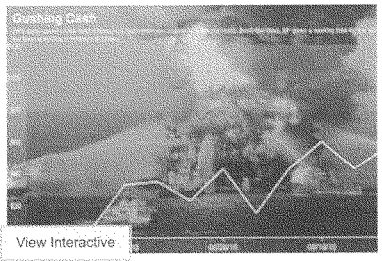
"Interior had to take immediate action to minimize the risk of another spill, especially while efforts to contain and clean up this one are ongoing," the motion says. "The stakes are even higher now that it is hurricane season."

Attorneys for the government and Hornbeck Offshore Services LLC—an offshore oil-services provider that challenged the moratorium—are scheduled to square off on Thursday before a panel of judges assigned to the Fifth Circuit.

Risky Design



See details on the designs of deepwater Gulf wells.



View Interactive

BP's daily spend on the Gulf of Mexico oil spill continues to grow through the crisis. Here is the daily spending in millions of dollars.

More photos and interactive graphics

EXPERIENCE WSJ PROFESSIONAL

Editors' Deep Dive: Drilling Ban Sparks Heated Debate

In its filing Tuesday, the Justice Department said federal law requires Interior to conclude that there is "a threat of serious or irreparable harm to the marine or coastal or human environment," and not to balance the risk of such harm against the economic harm from the moratorium.

In Louisiana, many politicians have said the ban is crippling an economy already walloped by curtailed fishing and a loss of tourism.

A new effect of the spill was discovered late Monday with tar balls and oil sheen sighted in the Rigolets, one of the waterways connecting the Gulf of Mexico to Lake Pontchartrain, which borders the northern edge of New Orleans. Some oil also had made it to the lake, according to the Deepwater Horizon Incident Joint Information Center in New Orleans.

After decades of neglect left it choked with pollution, the 630-square-mile lake was cleaned up in the 1990s and has since become a popular fishing and boating destination.

On Monday, crews tried to protect the lake by placing barges and protective piping called boom at a choke point in the Rigolets.

In Texas, the seven gallons of tar balls found over the weekend on beaches were confirmed as originating from the oil spill, but investigators

Drill Ban Could Bring Losses
THE ECONOMIST
Sue, Baby, Sue
ENERGY WASHINGTON WEEK
Ban Could Be Scaled Back

Access thousands of business sources not available on the free web. Learn More

were still not sure how they got to Texas, according to a Coast Guard spokesman. The tar balls were lightly weathered, and investigators speculated that the tar had come from the bottoms of boats bringing oil collected from the spill to Texas for processing.

Write to Stephen Power at stephen.power@wsj.com and Ann Zimmerman at ann.zimmerman@wsj.com

Copyright 2009 Dow Jones & Company, Inc. All Rights Reserved
This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our Subscriber Agreement and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-0008 or visit
www.djreprints.com

Boost your bottom line. Start today with The Wall Street Journal Online Small Business Channel.

Dow Jones Reprints: This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers, use the Order Reprints tool at the bottom of any article or visit www.djreprints.com

See a sample reprint in PDF format. Order a reprint of this article now

THE WALL STREET JOURNAL.
WSJ.com

BUSINESS | JULY 3, 2010

Smaller Oil Firms Might Exit Gulf, Browner Says

By SIOBHAN HUGHES

WASHINGTON—The White House's top energy adviser acknowledged that smaller oil firms might no longer be able to drill in the Gulf of Mexico as a result of legislation moving through Congress that would eliminate the cap on their liability for oil spills.

"Maybe this is a sector where you really need large companies who can bring to bear the expertise and who have the wherewithal to cover the expense if something goes wrong," Carol Browner, special adviser to President Barack Obama on energy and climate change, said in an interview. Eliminating the $75 million cap on liability for oil spills "will mean that you only have large companies in this sector," she said.

On other topics, Ms. Browner said the Obama administration would be happy with a scaled-back energy bill this year "just to get started." She said the administration is mindful of the effects of a deepwater-drilling moratorium and wants "to get people back to work," but wants first to understand what caused the BP PLC oil spill in the Gulf of Mexico.

The administration has imposed a now-challenged moratorium on deepwater drilling while a presidential commission conducts a six-month investigation of the BP disaster. Oil companies have been pushing the Interior Department to lift the moratorium, saying that new safety regulations could allow drilling to resume.

"The small companies did nothing wrong —and you're going to shut them down?" said Robert Dillon, a spokesman for Sen. Lisa Murkowski (R, Alaska.) "So the only thing you are going to have left are the big, national oil companies like China. Where are the free-market values in that?"

Ms. Browner said lifting the moratorium would depend on developing better spill-response plans and an understanding of the cause of the Deepwater Horizon explosion. "We're keenly aware of the impact of the moratorium," she said.

Discarding the liability cap is a potent issue on Capitol Hill as oil continues to leak into the Gulf. Small companies have warned that discarding limits would shut out all but the biggest companies from offshore drilling, partly because obtaining insurance would become impossible without liability limits.

BP has paid out more than $132 million in damage claims and has promised to honor all legitimate claims despite the statutory liability cap. Under pressure from the White House, the company also has promised to put $20 billion into a fund to compensate residents for economic losses.

Bloomberg News

White House energy and climatechange adviser Carol Browner.

"There are still other damages to come—for example, natural-resource damages that BP will ultimately have to pay," Ms. Browner said.

Oil is expected to continue leaking until at least mid-August, when the first of two relief wells is supposed to shut off the well.

Ms. Browner added that "we don't want to see BP go out of business, because we've got lots of claims that need to be paid."Senate Democratic leaders are planning to use a broader energy package as a vehicle to discard the liability cap. The package has stalled in the face of opposition from coal and manufacturing states to mandatory reductions in greenhouse-gas emissions.

Last year, the Obama administration called for economy-wide emissions reductions, but the White House has become willing to consider an approach that would limit emissions only from the utility sector, suggesting action on an energy bill may be possible this year.

"Something that gets us started is something we will take seriously," Ms. Browner said. She suggested Mr. Obama wasn't ready to give up on setting a cap on carbon-dioxide emissions. "He continues to believe that a cap on carbon is very, very important."

Copyright 2009 Dow Jones & Company, Inc. All Rights Reserved
This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our Subscriber Agreement and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-0008 or visit www.djreprints.com

Print

Tuesday, July 6, 2010 5:50 AM EDT

BP calls partners to share in oil spill clean-up costs

By Carl Bagh

In the wake of spiraling clean-up costs in the Gulf of Mexico which hit $3 billion, BP turns to its partners Anadarko Petroleum Corp. and Mitsui Oil Exploration Company to share in footing the bill.

BP sent bills amounting to $272 million and $111 million to Anadarko and Mitsui respectively. Texas-based Anadarko holds 25 percent of the Deepwater well and Japanese firm Mitsui owns 10 percent while BP is the majority holder with a 65 percent stake.

The bills sent to BP partners reflects that BP is charging on the liability ensued by the partners as part of the joint operating agreement whereby the liability is commensurate to the share of ownership.

Anadarko said in a statement that it is reviewing the $272.2 million bill sent last week and "assessing our contractual remedies." Anadarko CEO Jim Hackett said last month that his company should be exempted from being charged for the spill due to BP's "reckless decisions and actions" in its handling of the well. Anadarko booked revenues of $8.2 billion in 2009. Also it had earmarked 18 percent of its $5.6 billion capital expenditure for 2010 for Deepwater Gulf of Mexico.

Mitsui said that it lacks expertise to fully assess the root cause of the accident and thus will seek advise from external experts regarding the bill. The company had established MitEnergy Upsteam Energy LLC in US in 2006 after buying a 50 percent stake in the Gulf of Mexico from Pogo Producing Company. On Nov. 2009 MitEnergy announced its plans to divest all of its Gulf of Mexico oil and gas assets to Energy XXI, Inc.

The demand for the clean-up costs were sent on June 2. BP requires the partners to honor the commitments 30 days from the date of receipt or as early as friday.

BP announced on Monday that its expenditure had increased from $2.65 billion a week ago to $3.12 billion.

Additional Links and Information:

CRS Report RL33404, *Offshore Oil and Gas Development: Legal Framework*, April 6, 2010. http://www.crs.gov/Pages/Reports.aspx?Source=search&ProdCode=RL33404

CRS Report R41132, *Outer Continental Shelf Moratoria on Oil and Gas Development*, April 7, 2010. http://www.crs.gov/Pages/Reports.aspx?Source=search&ProdCode=R41132

CRS Report RL33705, *Oil Spills in U.S. Coastal Waters: Background, Governance, and Issues for Congress*, April 30, 2010.
http://www.crs.gov/Pages/Reports.aspx?Source=search&ProdCode=RL33705

The Economic Impacts of the Oil and Gad Industry on the U.S. Economy: Employment, Labor Income, and Value Added prepared for the American Petroleum Institute.
http://www.api.org/Newsroom/upload/Industry_Economic_Contributions_Report.pdf

Administration's response timeline (updated daily)
http://www.whitehouse.gov/blog/2010/05/05/ongoing-administration-wide-response-deepwater-bp-oil-spill

Deepwater Horizon Response Unified Command:
http://www.deepwaterhorizonresponse.com/go/site/2931/

HENRY A. WAXMAN, CALIFORNIA
CHAIRMAN

JOHN D. DINGELL, MICHIGAN
CHAIRMAN EMERITUS
EDWARD J. MARKEY, MASSACHUSETTS
RICK BOUCHER, VIRGINIA
FRANK PALLONE, JR., NEW JERSEY
BART GORDON, TENNESSEE
BOBBY L. RUSH, ILLINOIS
ANNA G. ESHOO, CALIFORNIA
BART STUPAK, MICHIGAN
ELIOT L. ENGEL, NEW YORK
GENE GREEN, TEXAS
DIANA DEGETTE, COLORADO
LOIS CAPPS, CALIFORNIA
MIKE DOYLE, PENNSYLVANIA
JANE HARMAN, CALIFORNIA
JIM MATHESON, UTAH
G.K. BUTTERFIELD, NORTH CAROLINA
CHARLES A. GONZALEZ, TEXAS
JAY INSLEE, WASHINGTON
TAMMY BALDWIN, WISCONSIN
MIKE ROSS, ARKANSAS
ANTHONY D. WEINER, NEW YORK
JIM MATHESON, UTAH
JOHN P. SARBANES, MARYLAND
DORIS O. MATSUI, CALIFORNIA
DIANA DEGETTE, COLORADO
VERNON J. ROBY, ALABAMA
MICHAEL F. DOYLE, PENNSYLVANIA
CHRISTOPHER S. MURPHY, CONNECTICUT
THOMAS C. SPEAR, OHIO
JERRY MCNERNEY, CALIFORNIA
BETTY SUTTON, OHIO
BRUCE BRALEY, IOWA
PETER WELCH, VERMONT

JOE BARTON, TEXAS
RANKING MEMBER

RALPH M. HALL, TEXAS
FRED UPTON, MICHIGAN
CLIFF STEARNS, FLORIDA
ED WHITFIELD, KENTUCKY
JOHN SHIMKUS, ILLINOIS
JOHN B. SHADEGG, ARIZONA
STEVE BUYER, INDIANA
GEORGE RADANOVICH, CALIFORNIA
MARY BONO MACK, CALIFORNIA
GREG WALDEN, OREGON
LEE TERRY, NEBRASKA
MIKE ROGERS, MICHIGAN
SUE WILKINS MYRICK, NORTH CAROLINA
JOHN SULLIVAN, OKLAHOMA
TIM MURPHY, PENNSYLVANIA
MICHAEL C. BURGESS, TEXAS
MARSHA BLACKBURN, TENNESSEE
PHIL GINGREY, GEORGIA
STEVE SCALISE, LOUISIANA
HARRIS, ALABAMA
ROBERT E. LATTA, OHIO

ONE HUNDRED ELEVENTH CONGRESS

Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115

MAJORITY: (202) 225-2927
FACSIMILE: (202) 225-2373
MINORITY: (202) 225-3641

energycommerce.house.gov

June 14, 2010

Mr. Tony Hayward
Chief Executive Officer
BP PLC
1 St. James's Square
London SW1Y 4PD
United Kingdom

Dear Mr. Hayward:

We are looking forward to your testimony before the Subcommittee on Oversight and Investigations on Thursday, June 17, 2010, about the causes of the blowout of the Macondo well and the ongoing oil spill disaster in the Gulf of Mexico. As you prepare for this testimony, we want to share with you some of the results of the Committee's investigation and advise you of issues you should be prepared to address.

The Committee's investigation is raising serious questions about the decisions made by BP in the days and hours before the explosion on the Deepwater Horizon. On April 15, five days before the explosion, BP's drilling engineer called Macondo a "nightmare well." In spite of the well's difficulties, BP appears to have made multiple decisions for economic reasons that increased the danger of a catastrophic well failure. In several instances, these decisions appear to violate industry guidelines and were made despite warnings from BP's own personnel and its contractors. In effect, it appears that BP repeatedly chose risky procedures in order to reduce costs and save time and made minimal efforts to contain the added risk.

At the time of the blowout, the Macondo well was significantly behind schedule. This appears to have created pressure to take shortcuts to speed finishing the well. In particular, the Committee is focusing on five crucial decisions made by BP: (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.

Well Design. On April 19, one day before the blowout, BP installed the final section of steel tubing in the well. BP had a choice of two primary options: it could lower a full string of "casing" from the top of the wellhead to the bottom of the well, or it could hang a "liner" from the lower end of the casing already in the well and install a "tieback" on top of the liner. The liner-tieback option would have taken extra time and was more expensive, but it would have been safer because it provided more barriers to the flow of gas up the annular space surrounding these steel tubes. A BP plan review prepared in mid-April recommended against the full string of casing because it would create "an open annulus to the wellhead" and make the seal assembly at the wellhead the "only barrier" to gas flow if the cement job failed. Despite this and other warnings, BP chose the more risky casing option, apparently because the liner option would have cost $7 to $10 million more and taken longer.

Centralizers. When the final string of casing was installed, one key challenge was making sure the casing ran down the center of the wellbore. As the American Petroleum Institute's recommended practices explain, if the casing is not centered, "it is difficult, if not impossible, to displace mud effectively from the narrow side of the annulus," resulting in a failed cement job. Halliburton, the contractor hired by BP to cement the well, warned BP that the well could have a "SEVERE gas flow problem" if BP lowered the final string of casing with only six centralizers instead of the 21 recommended by Halliburton. BP rejected Halliburton's advice to use additional centralizers. In an e-mail on April 16, a BP official involved in the decision explained: "it will take 10 hours to install them. … I do not like this." Later that day, another official recognized the risks of proceeding with insufficient centralizers but commented: "who cares, it's done, end of story, will probably be fine."

Cement Bond Log. BP's mid-April plan review predicted cement failure, stating "Cement simulations indicate it is unlikely to be a successful cement job due to formation breakdown." Despite this warning and Halliburton's prediction of severe gas flow problems, BP did not run a 9- to 12-hour procedure called a cement bond log to assess the integrity of the cement seal. BP had a crew from Schlumberger on the rig on the morning of April 20 for the purpose of running a cement bond log, but they departed after BP told them their services were not needed. An independent expert consulted by the Committee called this decision "horribly negligent."

Mud Circulation. In exploratory operations like the Macondo well, wells are generally filled with weighted mud during the drilling process. The American Petroleum Institute (API) recommends that oil companies fully circulate the drilling mud in the well from the bottom to the top before commencing the cementing process. Circulating the mud in the Macondo well could have taken as long as 12 hours, but it would have allowed workers on the rig to test the mud for

gas influxes, to safely remove any pockets of gas, and to eliminate debris and condition the mud so as to prevent contamination of the cement. BP decided to forego this safety step and conduct only a partial circulation of the drilling mud before the cement job.

Lockdown Sleeve. Because BP elected to use just a single string of casing, the Macondo well had just two barriers to gas flow up the annular space around the final string of casing: the cement at the bottom of the well and the seal at the wellhead on the sea floor. The decision to use insufficient centralizers created a significant risk that the cement job would channel and fail, while the decision not to run a cement bond log denied BP the opportunity to assess the status of the cement job. These decisions would appear to make it crucial to ensure the integrity of the seal assembly that was the remaining barrier against an influx of hydrocarbons. Yet, BP did not deploy the casing hanger lockdown sleeve that would have prevented the seal from being blown out from below.

These five questionable decisions by BP are described in more detail below. We ask that you come prepared on Thursday to address the concerns that these decisions raise about BP's actions.

Background

BP started drilling the Macondo well on October 7, 2009, using the Marianas rig. This rig was damaged in Hurricane Ida on November 9, 2009. As a result, BP and the rig operator, Transocean, replaced the Marianas rig with the Deepwater Horizon. Drilling with the Deepwater Horizon started on February 6, 2010.

The Deepwater Horizon rig was expensive. Transocean charged BP approximately $500,000 per day to lease the rig, plus contractors' fees.[1] BP targeted drilling the well to take 51 days and cost approximately $96 million.[2]

The Deepwater Horizon was supposed to be drilling at a new location as early as March 8, 2010.[3] In fact, the Macondo well took considerably longer than planned to complete. By April 20, 2010, the day of the blowout, the rig was 43 days late for its next drilling location, which may have cost BP as much as $21 million in leasing fees alone. It also may have set the context for the series of decisions that BP made in the days and hours before the blowout.

---

[1] According to the terms of the contract, the daily rate would range from $458,000 in March 2008 to $517,000 in September 2010. *See* Transocean, *Transocean Fleet Update*, fn. 11 (Apr. 13, 2010) (online at http://www.deepwater.com/fw/main/Fleet-Update-Report-58.html).

[2] BP, *GOM Exploration Wells MC 252 #1 – Macondo Prospect Well Information* (Sept. 2009) (BP-HZN-CEC008714).

[3] Testimony of Steve Tink, BP, Health, Safety and Environmental Manager, before the U.S. Coast Guard/MMS Marine Board of Investigation (May 26, 2010).

Well Design

Deepwater wells are drilled in sections. The basic process involves drilling through rock, installing and cementing casing to secure the wellbore, and then drilling deeper and repeating the process. On April 9, 2010, BP finished drilling the last section of the well. The final section of the wellbore extended to a depth of 18,360 feet below sea level, which was 1,192 feet below the casing that had previously been inserted into the well.[4]

At this point, BP had to make an important well design decision: how to secure the final 1,192 feet of the well. On June 3, Halliburton's Vice President of Cementing, Tommy Roth, briefed Committee staff about the two primary options available to BP. One option involved hanging a steel tube called a "liner" from a liner hanger on the bottom of the casing already in the well and then inserting another steel liner tube called a "tieback" on top of the liner hanger. The other option involved running a single string of steel casing from the seafloor all the way to the bottom of the well. Mr. Roth informed the Committee that "Liner/Tieback Casing provides advantage over full string casing with redundant barriers to annular flow."[5] In the case of a single string of casing, there are just two barriers to the flow of gas up the annular space that surrounds the casing: the cement at the bottom of the well and the seal at the wellhead. Mr. Roth told the Committee that in contrast, "Liner/Tieback provides four barriers to annular flow."[6] They are (1) the cement at the bottom of the well, (2) the hanger seal that attaches the liner to the existing casing in the well, (3) the cement that secures the tieback on top of the liner, and (4) the seal at the wellhead. The liner-tieback option also takes more time to install, requiring several additional days to complete.

Internal BP documents indicate that BP was aware of the risks of the single casing approach. An undated "Forward Plan Review" that appears to be from mid-April recommended against the single string of casing because of the risks. According to this document, "Long string of casing … *was* the primary option" but a "Liner … is now the recommended option."[7]

---

[4] BP, PowerPoint Presentation, *Washington Briefing, Deepwater Horizon Interim Incident Investigation* at 4 (May 24, 2010).

[5] Briefing by Tommy Roth, Vice President of Cementing, Halliburton, to House Committee on Energy and Commerce Staff (June 3, 2010); Halliburton, PowerPoint Presentation, *Energy and Commerce Committee Staff Briefing* at 12 (June 3, 2010).

[6] *Id.* at 6.

[7] BP, *MC 252#1 Macondo, TD Forward Plan Review – Production Casing & TA Options*, at 9. (Apr. 2010) (BP-HZN-CEC-22109). The documents provided to the Committee from BP contain three versions of this document. This one and a second nearly identical version (BP, *MC 252#1 Macondo, TD Forward Plan Review – Production Casing & TA Options* (Apr. 2010)) (BP-HZN-CEC-22025) recommend against a single string casing and in favor of a liner

The document gave four reasons against using a single string of casing. They were:

- "Cement simulations indicate it is unlikely to be a successful cement job due to formation breakdown."
- "Unable to fulfill MMS regulations of 500' of cement above top HC zone."
- "Open annulus to the wellhead, with … seal assembly as only barrier."
- "Potential need to verify with bond log, and perform remedial cement job(s)."[8]

In contrast, according to the document, there were four advantages to the liner option:

- "Less issue with landing it shallow (we can also ream it down)."
- "Liner hanger acts as second barrier for HC in annulus."
- "Primary cement job has slightly higher chance for successful cement lift."
- "Remedial cement job, if required, easier to justify to be left for later." [9]

Communications between employees of BP confirm they were evaluating these approaches. On April 14, Brian Morel, a BP Drilling Engineer, e-mailed a colleague, Richard Miller, about the options. His e-mail notes: "this has been [a] nightmare well which has everyone all over the place."[10]

Despite the risks, BP chose to install the single string of casing instead of a liner and tieback, applying for an amended permit on April 15.[11] The company's application stated that the full casing string would start at 9 7/8 inches diameter at the top of the well and narrow to 7 inches diameter at the bottom.[12] This application was approved on the same day.[13]

---

approach. The third version recommends in favor of the single string of casing and is discussed below.

[8] *Id.* "HC" stands for hydrocarbon.

[9] *Id.* at 10.

[10] E-mail from Brian Morel, Drilling Engineer, BP, to Richard Miller, BP (Apr. 15, 2010) (BP-HZN-CEC-21857).

[11] BP, *Form MMS 123A/123S – Electronic Version, Application for Revised Bypass* (Apr. 15, 2010) (BP-HZN-CEC018357).

[12] *Id.*

[13] E-mail from Frank Patton, MMS, to Heather Powell, JC Connor Consulting ("Modification of Permit to Bypass as Location Surface Lease: G32306 Surface Area: MC Surface Block: 252 Bottom Lease: G32306 Bottom Area: MC Bottom Block: 252 Well Name: 001 Assigned API Number: 608174116901 has been approved. as of 2010-04-15 14:39:39.0") (Apr. 14, 2010). Ms. Powell then forwarded the approval to BP. E-mail from Heather Powell,

The decision to run a single string of casing appears to have been made to save time and reduce costs. On March 25, Mr. Morel e-mailed Allison Crane, the Materials Management Coordinator for BP's Gulf of Mexico Deepwater Exploration Unit, that the long casing string "saves a lot of time … at least 3 days."[14] On March 30, he e-mailed Sarah Dobbs, the BP Completions Engineer, and Mark Hafle, another BP Drilling Engineer, that "[n]ot running the tieback … saves a good deal of time/money."[15] On April 15, BP estimated that using a liner instead of the single string of casing "will add an additional $7 - $10 MM to the completion cost."[16] The same document calls the single string of casing the "[b]est economic case and well integrity case for future completion operations."[17]

Around this time, BP prepared another undated version of its "Forward Plan Review." Notably, this version of the document reaches a different conclusion than the other version, calling the long string of casing "the primary option" and the liner "the contingency option."[18] Like the other version of the plan review, this version acknowledges the risks of a single string of casing, but it now describes the option as the "Best economic case and well integrity case for future completion operations."[19]

Centralizers

Centralizers are attachments that go around the casing as it being lowered into the well to keep the casing in the center of the borehole. If the well is not properly centered prior to the cementing process, there is increased risk that channels will form in the cement that allow gas to flow up the annular space around the casing. API Recommended Practice 65 explains: "If casing is not centralized, it may lay near or against the borehole wall. … It is difficult, if not

---

JC Connor Consulting, to Mark Hafle, Senior Drilling Engineer, BP (Apr. 15, 2010) (BP-HZN-CEC021033).

[14] E-mail from Brian Morel, Drilling Engineer, BP, to Allison Crane, Materials Management Coordinator, BP Gulf of Mexico Deepwater Exploration (Mar. 25, 2010). (BP-HZN-CEC021880).

[15] E-mail from Brian Morel, Drilling Engineer, BP, to Sarah Dobbs, Completions Engineer, BP, and Mark Hafle, Senior Drilling Engineer, BP (Mar. 30, 2010) (BP-HP-CEC021948).

[16] BP, *Drilling & Completions MOC Initiate* (Apr. 15, 2010) (BP-HZN-CEC021656).

[17] *Id.*

[18] BP, *TD Forward Plan Review, Production Casing & TA Options* at 6-7 (undated) (BP-HZN-CEC-022145).

[19] *Id.*

impossible, to displace mud effectively from the narrow side of the annulus if casing is poorly centralized. This results in bypassed mud channels and inability to achieve zonal isolation."[20]

On April 15, BP informed Halliburton's Account Representative, Jesse Gagliano, that BP was planning to use six centralizers on the final casing string at the Macondo well. Mr. Gagliano spent that day running a computer analysis of a number of cement design scenarios to determine how many centralizers would be necessary to prevent channeling.[21] With ten centralizers, the modeling resulted in a "MODERATE" gas flow problem.[22] Mr. Gagliano's modeling showed that it would require 21 centralizers to achieve only a "MINOR" gas flow problem.[23]

Mr. Gagliano informed BP of these results and recommended the use of 21 centralizers.[24] After running a model with ten centralizers, Mr. Gagliano e-mailed Brian Morel, BP's drilling engineer, and other BP officials, stating that the model "now shows the cement channeling" and that "I'm going to run a few scenarios to see if adding more centralizers will help us or not."[25] Twenty-five minutes later, Mr. Morel e-mailed back:

> We have 6 centralizers, we can run them in a row, spread out, or any combination of the two. It's a vertical hole, so hopefully the pipe stays centralized due to gravity. As far as changes, it's too late to get any more product on the rig, our only option[] is to rearrange placement of these centralizers.[26]

---

[20] API, Recommended Practice 65-Part 2, *Isolating Potential Flow Zones During Well Construction*, 4.6.5.8., at 28.

[21] House Committee on Energy and Commerce, Transcribed Interview of Jesse Marc Gagliano, at 26 (June 11, 2010).

[22] Halliburton, *9 7/8" X 7" Production Casing Design Report* (Apr. 15, 2010) (HAL_0010592).

[23] Halliburton, *9 7/8" X 7" Production Casing Design Report* (Apr. 15, 2010) (HAL_0010699).

[24] House Committee on Energy and Commerce, Transcribed Interview of Jesse Marc Gagliano, at 8 (June 11, 2010).

[25] E-mail from Jesse Gagliano, Account Representative, Halliburton, to Mark Hafle, Senior Drilling Engineer, BP, Brian Morel, Drilling Engineer, BP, Brett Cocales, Operations Drilling Engineer, BP, and Gregory Walz, Drilling Team Leader, BP (Apr. 15, 2010) (HAL_0010650).

[26] E-mail from Brian Morel, Drilling Engineer, BP, to Jesse Gagliano, Account Representative, Halliburton, Mark Hafle, Senior Drilling Engineer, BP, Brett Cocales, Operations Drilling Engineer, BP, and Gregory Walz, Drilling Team Leader, BP (Apr. 15, 2010) (HAL_0010648).

The following day, April 16, the issue was elevated to John Guide, BP's Well Team Leader, by Gregory Walz, BP's Drilling Engineering Team Leader. Mr. Walz informed Mr. Guide: "We have located 15 Weatherford centralizers with stop collars … in Houston and worked things out with the rig to be able to fly them out in the morning." The decision was made because "we need to honor the modeling to be consistent with our previous decisions to go with the long string."[27] Mr. Walz explained: "I wanted to make sure that we did not have a repeat of the last Atlantis job with questionable centralizers going into the hole."[28] Mr. Walz added: "I do not like or want to disrupt your operations. … I know the planning has been lagging behind the operations and I have to turn that around."[29]

In his response, Mr. Guide raised objections to the use of the additional centralizers, writing: "it will take 10 hrs to install them. … I do not like this and … I [am] very concerned about using them."[30]

An e-mail from Brett Cocales, BP's Operations Drilling Engineer, indicates that Mr. Guide's perspective prevailed. On April 16, he e-mailed Mr. Morel:

> Even if the hole is perfectly straight, a straight piece of pipe even in tension will not seek the perfect center of the hole unless it has something to centralize it.
>
> But, who cares, it's done, end of story, will probably be fine and we'll get a good cement job. I would rather have to squeeze than get stuck. … So Guide is right on the risk/reward equation.[31]

On April 17, Mr. Gagliano, the Halliburton account representative, was informed that BP had decided to use only six centralizers.[32] He then ran a model using seven centralizers and

---

[27] E-mail from Gregory Walz, Drilling Team Leader, BP, to John Guide, Well Team Leader, BP (Apr. 16, 2010) (BP-HZN-CEC0022433).

[28] *Id.*

[29] *Id.*

[30] *Id.*

[31] E-mail from Brett Cocales, Operations Drilling Engineer, BP, to Brian Morel, Drilling Engineer, BP (Apr. 16, 2010) (BP-HZN-CEC022670).

[32] House Committee on Energy and Commerce, Transcribed Interview of Jesse Marc Gagliano, at 40-41 (June 11, 2010).

found this would likely produce channeling and a failure of the cement job.[33] His April 18 cementing design report states: "well is considered to have a SEVERE gas flow problem."[34] Mr. Gagliano said that BP was aware of the risks and proceeded with knowledge that his report indicated the well would have a severe gas flow problem.[35]

Mr. Gagliano's findings should not have been a surprise to BP. As noted above, BP's mid-April plan review found that if BP used a single string of casing, as BP had decided to do, "Cement simulations indicate it is unlikely to be a successful cement job."[36] Nonetheless, BP ran the last casing with only six centralizers.[37]

Cement Bond Log

A cement bond log is an acoustic test that is conducted by running a tool inside the casing after the cementing is completed. The cement bond log determines whether the cement has bonded to the casing and surrounding formations. If a channel that would allow gas flow is found, the casing can be perforated and additional cement injected into the annular space to repair the cement job.

Mr. Roth, the Halliburton Vice President of Cementing, informed the Committee staff that BP should have conducted a cement bond log. According to Mr. Roth, "If the cement is to be relied upon as an effective barrier, the well owner must perform a cement evaluation as part of a comprehensive systems integrity test."[38]

---

[33] *Id.* at 8. Mr. Gagliano told the Committee that at the time he ran a model with seven centralizers, he knew of BP's decision to use only six. He told the Committee that running a model with seven centralizers demonstrated that the difference between six and seven centralizers would be unlikely to affect the outcome of the modeling.

[34] Halliburton, *9 7/8" X 7" Production Casing Design Report* (Apr. 18, 2010) (HAL_0010955).

[35] House Committee on Energy and Commerce, Transcribed Interview of Jesse Marc Gagliano, at 43-45 (June 11, 2010).

[36] BP, *MC 252#1 Macondo, TD Forward Plan Review – Production Casing & TA Options*, at 9. (Apr. 2010) (BP-HZN-CEC-22109).

[37] BP, *Daily Operations Report – Partners (Completion)* (Apr. 18, 2010) (HAL_0028210).

[38] Briefing by Tommy Roth, Vice President of Cementing, Halliburton, to House Committee on Energy and Commerce Staff (June 3, 2010); Halliburton, PowerPoint Presentation, *Energy and Commerce Committee Staff Briefing* at 12 (June 3, 2010).

Minerals Management Service (MMS) regulations also appear to direct a cement bond log or equivalent test at the Macondo well. According to the regulations, if there is an indication of an inadequate cement job, the oil company must "(1) Pressure test the casing shoe; (2) Run a temperature survey; (3) Run a cement bond log; or (4) Use a combination of these techniques."[39] In the case of the Macondo well, the Halliburton and internal BP warnings should have served as an indication of a potentially inadequate cement job.

On April 18, BP flew a crew from Schlumberger to the rig. As described in a Schlumberger timeline, "BP contracted with Schlumberger to be available to perform a cement bond log … should BP request those services."[40] But at about 7:00 a.m. on the morning of April 20, BP told the Schlumberger crew that their services would not be required for a cement bond log test.[41] As a result, the Schlumberger crew departed the Deepwater Horizon at approximately 11:15 a.m. on a regularly scheduled BP helicopter flight.[42] The Schlumberger crew was scheduled for departure before pressure testing of the well had been completed, indicating that the results of those tests were not a factor in BP's decision to send the crew away without conducting a cement bond log.[43]

BP's decision not to conduct the cement bond log test may have been driven by concerns about expense and time. The cement bond log would have cost the company over $128,000 to complete.[44] In comparison, the cost of canceling the service was just $10,000.[45] Moreover, Mr. Roth of Halliburton estimated that conducting the test would have taken an additional 9 to 12 hours.[46] Remediating any problems found with the cementing job would have taken still more time.[47]

---

[39] 30 CFR § 250.428.

[40] Schlumberger, *Mississippi Canyon Block 252 Timeline* (undated) (SLB-EC-000002).

[41] *Id.*

[42] *Id.*

[43] Briefing by Mark Bly, Group Vice President for Safety & Operations, BP, to House Committee on Energy and Commerce Staff (May 25, 2010).

[44] Schlumberger, *Estimated Costs of Equipment/Labor to Perform the Contingent Services Identified by BP and the Actual Costs Upon Cancellation* (SLB-EC-000909).

[45] *Id.*

[46] Briefing by Tommy Roth, Vice President of Cementing, Halliburton, to House Committee on Energy and Commerce Staff (June 3, 2010).

[47] A BP document indicates that the company would rely on lost mud "returns" during the cementing process as a trigger for conducting a cement bond log. BP, *GOM Exploration Wells MC 252 #1ST00BP01- Macondo Prospect 7" x 9-7/8" Interval* at 3 (Apr. 15, 2010) (BP-

The Committee staff asked an independent engineer with expertise in the analysis of well failure about BP's decision not to conduct a cement bond log. The engineer, Gordon Aaker, Jr., P.E., a Failure Analysis Consultant with the firm Engineering Services, LLP, said that it was "unheard of" not to perform a cement bond log on a well using a single casing approach, and he described BP's decision not to conduct a cement bond log as "horribly negligent."[48] Another independent expert consulted by the Committee, John Martinez, P.E., told the committee that "cement bond or cement evaluation logs should always be used on the production string."[49]

Mud Circulation

Another questionable decision by BP appears to have been the failure to circulate fully the drilling mud in the well before cementing. This procedure, known as "bottoms up," involves circulating drilling mud from the bottom of the well all the way to the surface. Bottoms up has several purposes: it allows workers on the rig to test the mud for influxes of gas; it permits a controlled release of gas pockets that may have entered the mud; and it ensures the removal of well cuttings and other debris from the bottom of the well, preventing contamination of the cement.

API's guidelines recommend a full bottoms up circulation between running the casing and beginning a cementing job. The recommended practice states that "when the casing is on bottom and before cementing, circulating the drilling fluid will break its gel strength, decrease its viscosity and increase its mobility. The drilling fluid should be conditioned until equilibrium is achieved. … At a minimum, the hole should be conditioned for cementing by circulating 1.5 annular volumes or one casing volume, whichever is greater."[50]

HZN-CEC017621). Mr. Gagliano of Halliburton told the Committee that lost returns are not a reliable indicator of channeling: "the amount of returns would not tell you if there's channeling or not. Full returns just indicates the amount of fluid you're pumping into the wellbore, you're getting the equal or very close to equal volume back at surface, which is telling you that you're not fracturing any fluids into the formation or losing any fluids. It's not really an indication of channeling." House Committee on Energy and Commerce, Transcribed Interview of Jesse Marc Gagliano, at 86 (June 11, 2010).

[48] Briefing by Gordon Aaker, Jr., P.E., Failure Analysis Consultant with Engineering Services, L.P. (Houston), to House Committee on Energy and Commerce Staff (June 10, 2010).

[49] E-mail from John Martinez, P.E., an independent production specialist on wellbore construction, to House Committee on Energy and Commerce Staff (June 10, 2010).

[50] API, Recommended Practice 65-Part 2, *Isolating Potential Flow Zones During Well Construction*, 4.8.4., at 36-37.

BP's April 15 operations plan called for a full bottoms up procedure to "circulate at least one (1) casing and drill pipe capacity, if hole conditions allow."[51] Halliburton Account Representative Jesse Gagliano said it was also "Halliburton's recommendation and best practice to at least circulate one bottoms up on the well before doing a cement job."[52] According to Mr. Gagliano, a Halliburton engineer on the rig raised the bottoms up issue with BP.[53]

Despite the BP operations plan and the Halliburton recommendation, BP did not fully circulate the mud. Instead, it chose a procedure "written on the rig" which Mr. Gagliano "did not get input in."[54] BP's final procedure called for circulating just 261 barrels of mud, just a small fraction of the mud in the Macondo well.[55] Mr. Roth of Halliburton told the Committee that one reason for the decision not to circulate the mud could have been a desire for speed, as fully circulating the mud could have added as much as 12 hours to the operation.[56] Mr. Gagliano expressed a similar view, saying, "the well probably would not have handled too high of a rate. So it would take a little bit … longer than usual to circulate bottoms up in this case."[57]

Lockdown Sleeve

A final question relates to BP's decision not to install a critical apparatus to lock the wellhead and the casing in the seal assembly at the seafloor. When the casing is placed in the wellhead and cemented in place, it is held in place by gravity. Under certain pressure conditions, however, the casing can become buoyant, rising up in the wellhead and potentially creating an opportunity for hydrocarbons to break through the wellhead seal and enter the riser to the surface. To prevent this, a casing hanger lockdown sleeve is installed.

On June 8, 2010, Transocean briefed Committee staff on its investigation into the potential causes of the explosion on board the Deepwater Horizon. In the presentation, Transocean listed the lack of a lockdown sleeve as one of its "areas of investigation." Slide

---

[51] BP, *GOM Exploration Wells, MC252 #1ST00PBP01 – Macondo Prospect 7" X 9 7/8" Interval, Rev. H.2* at 6 (Apr. 15, 2010) (BP-HZN-CEC-017621).

[52] House Committee on Energy and Commerce, Transcribed Interview of Jesse Marc Gagliano, at 57 (June 11, 2010).

[53] *Id.* at 61.

[54] *Id.* at 57.

[55] *Id.* at 60.

[56] Briefing by Tommy Roth, Vice President of Cementing, Halliburton, to House Committee on Energy and Commerce Staff (June 3, 2010).

[57] House Committee on Energy and Commerce, Transcribed Interview of Jesse Marc Gagliano, at 65-66 (June 11, 2010).

seven of Transocean's presentation asks: "Were Operator procedures appropriate?" A subpoint details: "Operator did not run lock down sleeve prior to negative test or displacement."[58] Mr. Roth of Halliburton raised a similar concern in his June 3 briefing for Committee staff.[59]

In BP's planned procedure for the well, BP describes two options involving the lockdown sleeve. BP was seeking permission from MMS to install the final cement plug on the well at a lower depth than previously approved. If permission was granted, BP's plan was to displace the drilling mud in the riser with seawater and install the cement plug prior to installation of the casing hanger lockdown sleeve. BP's alternative plan, if MMS did not approve the proposed depth of the final cement plug, was to run the lockdown sleeve first, before installing the cement plug at a shallower depth.[60] On April 16, Brian Morel, BP's drilling engineer, e-mailed BP staff that: "We are still waiting for approval of the departure to set our surface plug. … If we do not get this approved, the displacement/plug will be completed shallower after running the LDS."[61] The LDS stands for the lockdown sleeve.

Conclusion

The Committee's investigation into the causes of the blowout and explosion on the Deepwater Horizon rig is continuing. As our investigation proceeds, our understanding of what happened and the mistakes that were made will undoubtedly evolve and change. At this point in the investigation, however, the evidence before the Committee calls into question multiple decisions made by BP. Time after time, it appears that BP made decisions that increased the risk of a blowout to save the company time or expense. If this is what happened, BP's carelessness and complacency have inflicted a heavy toll on the Gulf, its inhabitants, and the workers on the rig.

---

[58] Transocean, PowerPoint Presentation, *Deepwater Horizon Incident – Internal Investigation: Investigation Update – Interim Report* at 7 (June 8, 2010).

[59] Briefing by Tommy Roth, Vice President of Cementing, Halliburton, to House Committee on Energy and Commerce Staff (June 3, 2010).

[60] BP, *GOM Exploration Wells MC 252 #1ST00BP01- Macondo Prospect 7" x 9-7/8" Interval* at 8 (Apr. 15, 2010) (BP-HZN-CEC017621).

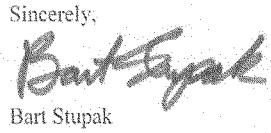
[61] E-mail from Brian Morel, Drilling Engineer, BP, to Ronald Sepulvado et al. (Apr. 16, 2010) (BP-HZN-CEC022821).

Mr. Tony Hayward
June 14, 2010
Page 14

During your testimony before the Committee, you will be asked about the issues raised in this letter. This will provide you an opportunity to respond to these concerns and clarify the record. We appreciate your willingness to appear and your cooperation in the Committee's investigation.

Sincerely,

Henry A. Waxman
Chairman



Bart Stupak
Chairman
Subcommittee on Oversight and Investigations

Enclosure

cc: The Honorable Joe Barton
Ranking Member

The Honorable Michael C. Burgess
Ranking Member
Subcommittee on Oversight and Investigations

From: Sannan, Bill (Houston)
Sent: Sunday, November 01, 2009 7:35 PM
To: Wright, Mike (Houston); Adamson, Keelan (Houston); Rose, Adrian (Houston); Birmingham, Hank (Houston); Bobillier, Arnaud (Geneva); Bonno, Terry (Geneva); Boone, John (Houston); Canducci, Jerry (Houston); Cleaver, Marc (Houston); Hall, Eric (Houston); Hand, Steve (Houston); Johnson, Tony (Houston); McMahan, Larry (Houston); Legrand, Michel; McAllister, Kathleen (Houston); Moore, Jimmy (Houston); Ness, Chris (Houston); Guicheney, Patrick (Geneva); Tranter, Paul (Geneva); Smith, Pharr (Houston); Pirtle, Donnie (Houston); Reudelhuber, Dan (Houston); Richards, Jess (Houston); Saltiel, Rob (Houston); Newman, Steven (Geneva); Trahan, Buddy (Houston); Watson, Simon (Houston); Winslow, Daun (Houston)
Subject: Marianas Shear Rams - Operations Abnormality Notification
Attachments: MAR-Shear Rams on Yellow Pod Failure.doc; image003.jpg; image004.gif; image005.gif

The Marianas is pulling their BOP stack after running and cementing 18" casing. The shear rams cannot be functioned from the Yellow pod. Additionally, the lower annular will not close and the upper annular has been stripped through during a well control event.

Regards,

Bill Sannan
-----Original Message-----
From: Hockaday, Wilton (Houston)
Sent: Sunday, November 01, 2009 1:09 PM
To: DL-NAM OP_ABNORMALITY
Cc: Winslow, Daun (Houston)
Subject: Abnormality Report

All,

Initial report regarding Yellow Pod failure on the Marianas and subsequent BOP stack pull.

RIGCentral Home <http://www.rigcentral.com/>

Wilton N. Hockaday

Rig Manager - Asset

Marianas - North America Region

[redacted] (Office)

[redacted] (Cell)

[redacted]

CONFIDENTIAL

Confidential Treatment Requested by Transocean Holdings LLC TRN-HCEC-00064697

From: Watson, Simon (Houston)
Sent: Sunday, November 01, 2009 10:34 PM
To: Sannan, Bill (Houston); Pirtle, Donnie (Houston)
Subject: RE: Marianas Shear Rams - Operations Abnormality Notification
Attachments: image001.jpg; image002.gif; image003.gif

Bill,

The annular we changed last time, was it the lower or the upper. We had an issue earlier in the year where an annular that had just been overhauled failed upon installation. Is there any concern that the annular we have just changed was questionable

Thanks

Simon

From: Sannan, Bill (Houston)
Sent: Sunday, November 01, 2009 1:35 PM
To: Wright, Mike (Houston); Adamson, Keelan (Houston); Rose, Adrian (Houston); Birmingham, Hank (Houston); Bobillier, Arnaud (Geneva); Bonno, Terry (Geneva); Boone, John (Houston); Canducci, Jerry (Houston); Cleaver, Marco (Houston); Hall, Eric (Houston); Hand, Steve (Houston); Johnson, Tony (Houston); McMahan, Larry (Houston); Legrand, Michel; McAllister, Kathleen (Houston); Moore, Jimmy (Houston); Ness, Chris (Houston); Guicheney, Patrick (Geneva); Tranter, Paul (Geneva); Smith, Charr (Houston); Pirtle, Donnie (Houston); Reudelhuber, Dan (Houston); Richards, Jess (Houston); Saltiel, Rob (Houston); Newman, Steven (Geneva); Trahan, Buddy (Houston); Watson, Simon (Houston); Winslow, Daun (Houston)
Subject: Marianas Shear Rams - Operations Abnormality Notification

The Marianas is pulling their BOP stack after running and cementing 18" casing.. The shear rams cannot be functioned from the Yellow pod. Additionally, the lower annular will not close and the upper annular has been stripped through during a well control event.

Regards,

Bill Sannan

-----Original Message-----
From: Hockaday, Wilton (Houston)
Sent: Sunday, November 01, 2009 1:09 PM
To: DL-NAM OP_ABNORMALITY

CONFIDENTIAL

Transocean

Transocean Marianas
Shear Rams on Yellow Pod Failure

A	**Rig Name:** Transocean Marianas	**Location:** Wildcat-Macondo #1
B	**Project Status:** Unlatched BOP @ 0505 hrs on 11/1/09.Preparing to pull Riser.	
C	**Main Events:**	

Well Operations:
29 October 2009- Running 18" Casing on 5$^{1/2}$" Drill Pipe
30 October 2009- Running 18" Casing on 5$^{1/2}$" Drill Pipe, Cementing 18" Liner.
31 October 2009- Cementing 18" Liner, Well Secure.
01 November 2009- Drill Crew inspecting all Riser Equipment and BOP unlatched @ 0505 hrs

Vessel Status:
28 October 2009 – 1900hrs – Event happened

- Subsea crew on the Marianas went to function the Shear Rams on Yellow Pod SEM A @ 1500psi and did not get the correct gallon count. Received a .2 gal count on close and 24 gallons on open. Tried again and got .3 gallons on close and 16 gallons on open. Tried a third time and got .2 on close and 14.4 on open.
- Did the same on Blue Pod and did receive the full gallon count on open and close.
- The Subsea crew then swapped back to Yellow and got .2 close and 14 gallons open. They then swapped to SEM B on the Yellow pod and get the same results with .3 close and 10.9 open. They bumped the pressure up to 1700psi operating pressure and achieved the same results with .2 close and 11 gal open.
- At 2100 hrs, Rig Management and Field Technical Support informed of the situation

29 October 2009 – 0700hrs – Consultation with Field Support and Rig Management

- Rig Management consulted with Pete Calligeros from field support, who thinks it may be a stuck shear seal. Pete came up with a possible fix that needed to be tested with no pipe across the stack.
- Test was set for 1400hrs on 30 October after 18" casing was down and set.
- Proper CSTP and TRA conducted and approved by Rig Management.
- Secondary measures put in place in case of testing failure. Begin necessary preparation steps involved in pulling, function testing, and diagnosing the BOP stack.

30 October 2009 – 1400hrs – 1st Test Conducted

- The first test was carried out with these steps:

1. While on Blue Pod, put the Blind shears in block.
2. Switch SEM's on Yellow Pod, this will cause all solenoids on Yellow pod to drop out which means we will lose monitoring current during the switch in hopes that the open solenoid will drop out.
3. Change pods from Blue to Yellow.
4. Fire the Blind Shears from Block to close and note the gallon count. If we get the proper gallon count then the procedure has proven that the shear seal/solenoid is sticking with monitoring current applied.
5. Lastly, while on Yellow fire the Blinds open noting the gallon count and then back to close in hopes the problem has cleared itself.

- @ 1700 Rig Management in formed that the test was not successful
- @ 1713hrs conducted a 30 minute conference call with BP, Rig Managers, OIM, Maintenance

CONFIDENTIAL

Confidential Treatment Requested by Transocean Holdings LLC

Transocean

Supervisor, Sub Sea, and Sub Sea Tech support to decide next steps

- Decided to secure the well and kill power to yellow and power back up for 1 final effort.
- SWAT assistance requested @ 2033 hrs
- **Securing the well procedures commenced. Began Downtime @ 2100 hrs.**

31 October 2009 – 0850hrs – Securing the Well and 2nd Test

- Proper TSTP and TRA conducted and approved by Rig Management for 2nd Test.
- Second Test conducted with the following steps:

1. 1320hrs - Killed Yellow Pod via CCU Utility Panel.
   - Noted that power "on" indication at CCU Utility Panel stayed lit.
   - Verified at UPS panel that power to Yellow Pod was off.
   - MMI event page displayed "Pod Power Off Yellow"
2. 1326hrs - power was turned back on at CCU Utility Panel
   - MMI event page displayed "Pod Power On Yellow"
3. 1337hrs - Swapped to Yellow Pod.
4. 1328hrs - Verified gauges page on yellow was up and running (showed correct pressures)
   - Functioned Shear Rams Close (gallon count = .3)
5. 1329hrs - Functioned Shear Rams Open (gallon count = 19.3)
6. 1330hrs - Swapped to Blue Pod
   - Functioned Shear Rams Close (gallon count = 32.8)
7. 1332hrs - Functioned Shear Rams Open (gallon count = 29.8)
8. Pete Calligeros then suggested we put Shear Rams in "Block" Position on blue pod and try again.
9. 1338hrs - On Blue Pod, Placed Shear Rams in Block Position.
10. 1339hrs - Powered down Yellow Pod at CCU Utility Panel.
    - Noted that Utility Panel "on" indication stayed lit.
    - MMI event page showed "Pod Power Off Yellow"
11. 1349hrs - Power re-applied to Yellow Pod at CCU Utility Panel.
    - MMI event page displayed "Pod Power On Yellow"
12. 1350hrs - Swapped to Yellow Pod.
13. 1351hrs - Functioned Shear Rams Close (gallon count = .3)
14. 1352hrs - Functioned Shear Rams Open (gallon count = 9.5)
15. 1353hrs - Swapped to Blue Pod.
    - Functioned Shear Rams close (gallon count - 32.9)
    - Functioned Shear Rams open (gallon count - 29.7)

- Test was not successful. Commencing operations to unlatch and pull BOP Stack.
- Technical Field Support Personnel, Pete Calligeros and Mr.Chapman, plan to be on the Marianas on 2 Nov/3 Nov.

1 November 2009 – 00505hrs – Unlatched BOP

- Unlatched BOP from the well head @ 0505hrs

CONFIDENTIAL

Confidential Treatment Requested by Transocean Holdings LLC

TRN-HCEC-00064702

Transocean

	Ongoing operations: • Preparing to Pull Riser
E	Comments and Concerns: • Ensure that all safety procedures and protocols are followed accordingly while conducting these operations. • Estimated Downtime is a conservative 10 days @ $444,111/day =$ 4,441,110 • Do not know the cause of this downtime issue at this time. A detailed root cause analysis will be conducted to determine short and long term solutions to this subsea downtime issue and prevention of future occurrences.
F	Look Ahead: [redacted]
G	Report by: Wilton Hockaday – Rig Manager-Asset on 01th November 2009 – 1115hrs

CONFIDENTIAL

Confidential Treatment Requested by Transocean Holdings LLC

TRN-HCEC-00064703

TRANSOCEAN HOLDINGS, INC.
1311 BROADFIELD, SUITE 400
HOUSTON, TX 77084

Transocean

CHRISTOPHER S. YOUNG
SR. MARKETING REPRESENTATIVE

October 11, 2004

BP America Production Company
200 Westlake Park Blvd.
Houston, TX 77079

Attn: Mr. Randy Rhoads
Mail Code 1089 WL4

Re: Drilling Contract No. 980249 dated December 9, 1998 (as previously amended, **"Contract"**) by and between R&B Falcon Drilling Company, predecessor in interest to Transocean Holdings Inc. (**"Contractor"**) and Vastar Resources, Inc., predecessor in interest to BP America Production Company (**"Company"**), as amended for RBS-8D (now known as the **"Deepwater Horizon"**)

Subject: Letter Agreement for Conversion of VBR to a Test Ram
CONTRACTOR-5121-2002-011

Dear Randy,

When executed by both parties below, this letter will document the agreement between Contractor and Company for Contractor's conversion (the "Conversion") of an existing variable bore ram ("VBR") into a "test ram" on the Deepwater Horizon's blowout preventer (the "BOP").

In accordance with Articles 5 and 7 of the Contract, Company shall reimburse Contractor for the cost associated with the Conversion, which is estimated to be $135,000 based on the attached quote/AFE including the five percent (5%) handling fee. Notwithstanding the foregoing, Contractor shall give Company written notice of any increase of more than ten percent (10%) in the above cost estimate and such increase shall be subject to Company's prior written approval. If installation should require out-of-service time, Company agrees to pay Contractor at the Standby Rate (as defined in the Contract) until operations can be recommenced; provided such out-of-service time shall not exceed a maximum of twenty-four (24) hours. Reimbursement for the Conversion shall be in the form of a lump sum payment due and payable within thirty (30) days of receipt of Contractor's invoice therefore, which invoice shall be sent after the "test ram" has been installed.

Company acknowledges that the Conversion will reduce the built-in redundancy of the BOP, thereby potentially increasing Contractor's risk profile and corresponding cost structure. Therefore, after the Conversion is completed, if one of the two remaining VBRs fails to "test" on any well for any mechanical reason (as opposed to abnormal wear or damage caused by operations) and the MMS requires that Contractor pull the BOP to replace the VBR, Company agrees to pay Contractor the Operating Rate (as defined in the Contract) for the time required to pull the BOP, replace the ram, and re-run the BOP; provided, however, if one of the two remaining VBRs fails to "test" a subsequent time on the same well for any mechanical reason, after initially testing subsea, (as opposed to abnormal wear and damage caused by operations) and the MMS requires that Contractor pull the BOP to replace the VBR, the time required to pull the BOP, replace the ram, and re-run the BOP shall be considered Mechanical Downtime (as defined in the Contract).

Except as specifically set forth above, all other terms and conditions of the Contract, as amended to date, shall remain unchanged.

PHONE: [redacted] FAX: [redacted] EMAIL: [redacted]

BP America Production Company
Letter Agreement for Conversion of VBR to a Test Ram
October 11, 2004
Page 2 of 2

Please indicate your agreement to the terms of this letter by signing in the space provided below and returning an executed copy to us for our files. If you have any further questions, please contact John Keeton at [redacted] or me at [redacted] Thank you for the opportunity to be of service.

Sincerely,

Christopher S. Young
Sr. Marketing Representative
Transocean Holdings, Inc.

AGREED AND ACCEPTED:
THIS 19th **DAY OF** October, **2004**
BP AMERICA PRODUCTION COMPANY

SIGNED [signature]
PRINTED JEFF STURSETH
TITLE Contract Specialist

DMS
10/19/04

PHONE [redacted] FAX [redacted] EMAIL [redacted]

Confidential Treatment Requested by Transocean Holdings LLC TRN-HCEC-00064132