United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

APR 13 2012

The Honorable Doc Hastings, Chairman
Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As indicated in our April 10, 2012, letter, enclosed is the supplemental production of documents by the Department of the Interior that are responsive to the Committee's March 30 subpoena related to the Department's Office of Inspector General Report of Investigation on the Federal Moratorium on Deepwater Drilling.

This production comprises 349 pages of additional communications with the peer reviewers. These documents contain limited redactions for personal information and substantive technical deliberations.

We look forward to continued cooperation to resolve this matter with the Committee.

Sincerely,

Christopher Mansour
Director, Office of Congressional
and Legislative Affairs
U.S. Department of the Interior

Enclosure

cc: The Honorable Edward Markey
Ranking Member

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

APR 1 0 2012

The Honorable Doc Hastings
Chairman, Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Mr. Chairman,

The Department of the Interior ("Department") has been working diligently and in good faith to respond to the Committee on Natural Resource's requests for information related to the Department's Office of Inspector General Report of Investigation – Federal Moratorium on Deepwater Drilling Case No. PI-PI-10-0562-I. This Report reviewed the source and timing of drafting errors in the Department's May 2010 document "Improved Safety Measures for Energy Development on the Outer Continental Shelf" ("ISM Report").

Since the Committee's initial letter on April 25, 2011, the Department has worked with Committee staff to understand the scope of the Committee's interest so that we can meet its oversight interests without unnecessarily compromising important Executive Branch interests. Through these efforts, we have responded to the Committee's requests by producing nearly one thousand pages of documents as well as making multiple offers of accommodation that have included *in camera* reviews of documents and briefings in which we have provided information directly responsive to the Committee's articulated concerns. Although we remain committed to working with the Committee to resolve this matter, the Department is disappointed that after nearly a year of working with your staff to understand and accommodate the Committee's asserted interests in the ISM Report, we have reached a point where the Committee has taken the unnecessary and precipitious step of issuing a subpoena, notwithstanding the Department's continued good-faith efforts to work with the Committee.

As an initial matter, we must draw your attention to the varied and unsettled scope of the Committee's articulated interest, which continues to hinder the Department's ability to respond to the Committee's multiple requests, including the subpoena. In addition to seeking information regarding the editing of the peer review language in the Executive Summary of the ISM Report, the Committee also appears to have sought broad and ill-defined information regarding the ISM Report and the moratorium without articulating a specific oversight interest in such matters. The technical discussion and recommendations related to the proposed safety measures outlined in the ISM Report have been evaluated and reviewed by independent entities that have expressed their views of these technical matters. Additionally, the moratorium was the subject of litigation, the merits of which have since been resolved.

With regard to the editing of the peer review language in the Executive Summary of the ISM Report, that issue has also been resolved. The Inspector General investigated the matter and concluded that:

> All DOI officials interviewed stated that it was never their intention to imply the moratorium was peer reviewed by the experts, but rather rushed editing of the Executive Summary by DOI and the White House resulted in this implication. After reviewing different drafts of the Executive Summary that were exchanged between DOI and the White House prior to the final issuance, the OIG determined that the White House edit of the original DOI draft Executive Summary led to the implication that the moratorium recommendation had been peer reviewed by the experts.

"Investigative Report: Federal Moratorium on Deepwater Drilling," November 9, 2010, at 1.

Although the Inspector General has reviewed and resolved this matter, the Department has accommodated the Committee's interest in the peer review language in the Executive Summary in multiple respects over the last year. For example, the Department provided an *in camera* review of the underlying Investigative Activity Report prepared by the Inspector General's Office, which summarizes in detail the peer review drafting issue (including based on the underlying documents) and provides a straightforward explanation for the drafting error, demonstrating that there was no intent to mislead the public about what recommendations were endorsed by the peer reviewers. The Department also has provided the Committee with communications with the peer reviewers post-dating the release of the ISM Report, as well as other relevant documents, and has briefed the Committee on the chronology and content of the remaining thirteen OIG documents. Immediately after the publication of the ISM Report, in recognition of the confusion created by the placement of the peer review language in the Executive Summary, the Department publically clarified that the peer reviewers were not asked to review the Secretary's policy recommendation on the moratorium and apologized for any confusion created by the drafting of the Executive Summary. The Committee has yet to explain specifically why these accommodations have been insufficient to address its oversight interests or why further intrusion into the Executive Branch's deliberative process is necessary.

Moreover, the Department has an obligation to protect the integrity and confidentiality of the Executive Branch's implementation of the law and its deliberative processes. It has long been recognized that advisors who expect that their preliminary and unformed remarks will be made the subject of public scrutiny can be expected to be less candid in their advice, ultimately to the detriment of the Executive Branch decisionmaking process. These Executive Branch interests are particularly acute in the context of a national environmental disaster where immediate action to restore safety is paramount and where Executive Branch personnel should not be stymied and hindered in their ability to pose uncensored ideas to address a crisis. Given these important Executive Branch interests, it is critical that the Committee articulate a clear, specific oversight interest to allow the Department to work with the Committee to target the disclosure of any additional relevant information in a manner that provides needed information without unnecessary intrusion into Executive Branch deliberations.

In any event, the Department is committed to working with the Committee, and accordingly, is prepared to make additional accommodations. Today we make an initial production for the Committee of 164 pages of additional communications with the peer reviewers, with an additional production to occur later this week. These documents contain limited redactions for personal information and substantive technical deliberations and will demonstrate that, as the Department

has said all along, the peer reviewers applied their expertise to the technical recommendations in the ISM Report and were not asked to review the Secretary's policy recommendations regarding the moratorium. The Department is also offering for *in camera* review the May 25, 2010 draft of the Executive Summary of the ISM Report. This version of the Executive Summary was included in the ISM Report draft that was sent to the peer reviewers for their final review. Finally, the Department offers to the Committee the opportunity to review *in camera* a draft of the Executive Summary that was exchanged between Departmental and White House personnel on the evening of May 26, 2010. This draft was included as attachment 14 in the OIG Report.

With regard to the decision to recommend a moratorium on drilling in the Executive Summary of the ISM Report, the Committee has not articulated to the Department any questions that remain unanswered by the public record. Although the public record is clear, our offer for the Committee to review the May 25 and 26, 2010 drafts provides additional documentation regarding the moratorium recommendation as described in the OIG Report.

In closing, the Department has worked with the Committee in good faith throughout an extensive accommodation process to address the Committee's concerns. The additional disclosure of information as described in this letter reflects further good faith efforts on the part of the Department and we look forward to continued cooperation to resolve this matter with the Committee.

Sincerely,

Christopher Mansour
Director, Office of Congressional
and Legislative Affairs
U.S. Department of the Interior

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

FEB 28 2012

The Honorable Doc Hastings
Chairman, Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Chairman Hastings,

Thank you for your February 23, 2012, letters to Secretary Salazar and to Neal Kemkar. Because Neal Kemkar is a Department of the Interior employee who is detailed to the Council on Environmental Quality, the Department will respond to both of the Committee's letters. At this time, the Department is reviewing both letters as well as the requests made within them and expects to respond to the Committee more fully before the end of the week.

We look forward to continued cooperation with the Committee.

Sincerely,

Christopher Mansour
Director, Office of Congressional and Legislative Affairs

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

FEB - 9 2012

The Honorable Doc Hastings
Chairman, Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Mr. Chairman,

This letter responds to your letters dated January 25 and January 31, 2012, requesting additional information regarding the manner in which the scope of peer review was described in the Executive Summary of the Department of the Interior's (Department's) 2010 report entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf" (ISM Report). Although the scope of the peer review as described in the executive summary of the ISM Report has already been publically addressed by the Department and thoroughly examined by the independent OIG, which found no intent to mislead, with this letter the Department continues to provide documents and make offers of accommodation as part of the Department's ongoing effort to accommodate the Committee's information needs.

Both the Committee's January 25 and 31 letters include a request for additional documents concerning communications with the peer reviewers as well as documents related to an apology letter sent by Deputy Secretary David Hayes to peer reviewers, additional documents regarding meetings between Secretary Salazar and the peer reviewers, and documents concerning drafts of any press releases or communications materials concerning the release of the ISM Report. The Department is in the process of reviewing the vast amount of material it has gathered related generally to the moratorium while initiating a new search for responsive documents from the specific individuals mentioned in the January 25 and 31 letters. As an initial production, the Department is producing 36 pages of internal Departmental emails, which we are transmitting to the Committee on the enclosed CD, entitled "00035235_Hastings_002". These materials supplement the production of correspondences with the peer reviewers previously produced by the Department on October 24, 2011. The Department is also prepared to provide your staff with the opportunity to review additional documents *in camera* regarding communications and meetings with the peer reviewers. We expect to supplement these offers in the near future.

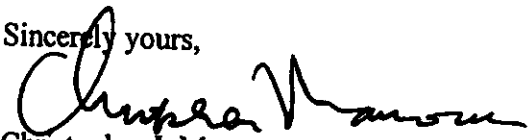
The Committee also requested documents related to edits to the executive summary of the report made after May 25, 2010. All documents that include edits, revisions, or changes to the draft executive summary of the ISM Report that illustrate the manner in which the placement of language regarding the peer review changed in the course of editing the executive summary and which lead to concerns that its scope was misrepresented were included by the OIG as six attachments to its report. We have engaged in a process of accommodation to meet the Committee's interest in those materials while respecting Executive Branch confidentiality interests, including offers of *in camera* review. In addition, documents regarding edits to the

executive summary that did not contain changes relevant to the description of the scope of the peer review were among the seven documents in the OIG's possession that were not attached to the OIG report. In each of its last three letters, the Department has offered to describe the nature of these documents to Committee staff, an offer the Department extends again here. We look forward to hearing from the Committee regarding this offer.

Through the Committee's April 25, 2011, letter and subsequent letters, we understood the Committee's intent to exercise Congress's oversight authority to investigate the manner in which the peer review was described in the executive summary of the ISM report and whether there was an intent to mislead the public regarding its scope. The Committee described in the April 25, 2011, letter its interest in reviewing the documents reviewed by the OIG. We have cooperated with the Committee to accommodate this interest in the description of the peer review. The Committee's most recent letter seeks specific information regarding the Department's decision-making about the moratorium while it was responding to a national emergency, and its work to develop the executive summary of the ISM Report that extend beyond the oversight interest articulated and implicate the Executive Branch's well-established confidentiality interests regarding its internal deliberations. These interests are especially strong here as the Committee's new requests implicate confidential, deliberative documents and communications of senior Executive Branch officials. As discussed above, we have worked to accommodate the Committee's oversight interests with respect to its interest in the description of the scope of the peer review in the executive summary and will continue to do so. We take this opportunity, however, to raise our serious concerns with respect to the Committee's suggestion that it intends to conduct oversight of the Department's work and decision-making more generally.

We look forward to continued cooperation with the Committee to work to satisfy its interest in the manner in which the scope of the peer review was described in the executive summary of the ISM Report and look forward to scheduling an opportunity for the *in camera* review of documents offered in this letter. If you have any questions or need additional assistance, please do not hesitate to contact me at (202) 208-7693.

Sincerely yours,



Christopher J. Mansour,
Director, Office of Congressional
and Legislative Affairs
U.S. Department of the Interior

cc: The Honorable Edward Markey
Ranking Member

The Honorable Doug Lamborn
Chairman, Subcommittee on Energy
and Mineral Resources

The Honorable Rush Holt
Ranking Member, Subcommittee on Energy
and Mineral Resources

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

FEB 2 2012

The Honorable Doc Hastings
Chairman, Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Department of the Interior ("Department") is in receipt of your letter dated January 25, 2012, regarding the Department's ongoing response to the Committee's April 25, 2011, letter. In that letter, the Committee seeks information regarding the Department's Office of Inspector General 2010 Report of Investigation into the description of the peer review in the executive summary of the Department's 2010 report entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf" (ISM Report). The Department also received your letter of January 31, 2012, acknowledging that Committee staff have located the Department's October 24, 2011, submission to the Committee that provided both documents and an additional offer of accommodation responding to each of the information needs prioritized by the Committee in its last communication prior to the January 25 letter.

The Department respectfully disagrees with the characterization in your January 25 letter that the Department has failed to respond to your requests in a meaningful way or has defied repeated efforts by the Committee to obtain relevant documents and communications related to it. Instead, the communications between your office and the Department reflect the many efforts the Department has made to accommodate the Committee's requests for information related to the OIG investigation of the description of the peer review in the executive summary of the ISM Report.

Although the description of the peer review in the executive summary was already publicly addressed by the Department and thoroughly examined by the independent OIG, which found no intent to mislead, the Department has made offers of accommodation that include providing responsive documents, indices of attachments in the OIG report that implicate Executive Branch confidentiality interests, and offers to view material related to the OIG report that also implicate these interests. These offers were based on the Committee staff's identification of the Committee's most important information needs regarding the description of the peer review. These offers were accepted by Committee staff, who came to the Department to review documents. It is our view that when Department and Committee staff have engaged, it has resulted in a productive dialogue and a respectful accommodation of the constitutional interests of the legislative and executive branches. We believe that continued open communication between the Department and the Committee will allow the Department to continue to work to

meet the Committee's information needs regarding the description of the peer review and can help avoid any concerns and confusion about responsiveness in the future.

Contrary to the Committee's assertion in its January 31 letter, the documents provided with the Department's October 24 response, which comprised emails between Steve Black and Neal Kemkar and the Department's peer reviewers of the ISM Report, were responsive to the Committee's request for these documents in previous letters. In providing these documents, the Department has demonstrated transparency and dedication to accommodating the Committee's requests.

In addition, our previous letters have addressed the 13 OIG documents requested by the Committee. As noted in our letter on October 13, 2011, we have informed Committee staff both informally and formally that, of the 13 documents, six are copies of the same attachments to the 2010 OIG report for which the Department provided an index on August 2, 2011, and three of which Committee staff have reviewed *in camera* at the Department. With regard to the remaining seven, the Department provided an index describing all 13 documents, including the remaining seven on October 13, 2011 at which time the Department noted that these seven documents, although collected by the OIG, were not related to the Committee's articulated interest concerning how the peer review was described in the Executive Summary to the ISM report. Still, the Department offered in both its October 13 and 24 letters to accommodate the Committee's interest while respecting the Executive Branch confidentiality interests by meeting with Committee staff to provide more information on the nature of these documents. Although we have received no response, we continue to extend that offer of accommodation to the Committee.

In addition to the documents discussed in the preceding paragraph, the Committee's January 25 and 31 letters request additional documents to be produced by February 2. With respect to the request for documents sent by the Department to Committee staff with instructions for responding to the OIG's 2010 investigation, Secretary Salazar has instructed all employees of their obligations to cooperate with the OIG. A copy of his 2010 directive is included on the enclosed CD, titled "00035235_Hastings_001."

With regard to specific documents, it is the OIG that makes requests of individuals during the course of its investigation. We would be happy to brief the Committee regarding the manner in which the Department responded to the OIG requests as well as the manner in which the Department has handled the Committee's request for documents in this matter. The Committee also requested a copy of any index of administrative record prepared for the *Hornbeck* litigation. That litigation was terminated before an administrative record was completed and filed with the court. Accordingly, there was no administrative record index prepared for the *Hornbeck* litigation.

We look forward to continuing to work with the Committee over the coming weeks to meet the Committee's specific information needs regarding the description of the peer review and, as always, we remain committed to working to accommodate those needs to the fullest extent consistent with Executive Branch confidentiality interests and the Department's limited resources.

If you have any questions or need additional assistance, please do not hesitate to contact me at (202) 208-7693.

Sincerely yours,

Christopher J. Mansour
Director, Office of Congressional
and Legislative Affairs
U.S. Department of the Interior

cc: The Honorable Edward Markey
Ranking Member

The Honorable Doug Lamborn
Chairman, Subcommittee on Energy
and Mineral Resources

The Honorable Rush Holt
Ranking Member, Subcommittee on Energy
and Mineral Resources

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

OCT 24 2011

The Honorable Doc Hastings
Chairman, Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Chairman Hastings:

Your September 28 and October 13, 2011 letters to the Department requested additional information regarding thirteen documents the Office of Inspector General (OIG) held back from a document production to the Committee and certain email communications between Neal Kemkar and the engineers who peer reviewed the 30-Day Safety Report. The Department responded to your request regarding the OIG documents in a letter dated October 14, 2011 with information and an offer to discuss the documents further.

With this letter, the Department is providing email communications between Neal Kemkar and Steve Black and the peer reviewers regarding the portrayal of the scope of the peer review in the Executive Summary of the report. A search of the Department's email archives identified email communications between the peer reviewers and both Neal Kemkar and Steve Black, and communications with both are included on the enclosed CD, which is titled "00032227_Hastings_001" and contains 112 documents totaling 919 pages. Several of the documents contain minor redactions to protect personally identifiable information.

We look forward to continued cooperation with the Committee.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional
And Legislative Affairs

Enclosure

cc: The Honorable Doug Lamborn
Chairman, Subcommittee on
Energy and Mineral Resources

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

OCT 13 2011

The Honorable Doc Hastings
Chairman, Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Chairman Hastings:

This letter responds to your letter of September 28, 2011 requesting additional information regarding the manner in which the scope of the peer review was presented in the Executive Summary of the 30-Day Safety Report.

In your September 28 letter, you refer to thirteen documents the Office of Inspector General (OIG) held back from a document production to the Committee. An attachment describing these thirteen documents is enclosed with this letter.

As Department of the Interior staff conveyed to your Committee staff at the meeting referenced in your letter, six of the thirteen documents are the same as the six attachments to the OIG's 2010 Report entitled "Federal Moratorium on Deepwater Drilling" which, as the Department previously explained, implicate important Executive Branch confidentiality interests. In an effort to accommodate the Committee's oversight interests in a manner consistent with these confidentiality interests, the Department shared information with your staff regarding those six documents, and provided your staff with the opportunity to review *in camera* three of those documents at the Department, including two of the seven emails (Attachments #13 and #15) referenced by the OIG in its August 17, 2011 letter.

The remaining seven documents also implicate important confidentiality interests of the Executive Branch. Unlike the attachments to the OIG report, however, none of these documents pertain to the subject of your inquiry – that is, the exchange described in the OIG report concerning edits made to the peer review reference in the Executive Summary. In order to accommodate the Committee's interest while respecting the Executive Branch confidentiality interests described above, Department staff are able to meet with Committee staff to provide more information on these documents at their convenience.

The Department is in the process of searching for and processing communications between Neal Kemkar and the engineers who peer reviewed the technical recommendations included in the 30-Day Report regarding the portrayal of the peer review in the Executive Summary. We expect to respond to the Committee's request regarding these communications in the near future.

Sincerely,

Christopher P. Salotti
Legislative Counsel
Office of Congressional
and Legislative Affairs

Enclosure

Item No.#	Document Type	Document Description
12	OIG Investigative Activity Report	OIG's analysis of differences between drafts of executive summary of the draft 30-day report Attachment #12 to OIG Report
13	E-mail	E-mail from Black to Aldy transmitting draft of 30-day report Attachment #13 to OIG Report
14	Draft report (attachment to e-mail in Attachment 13)	Draft 30-day report Attachment #14 to OIG Report
15	E-mail	E-mail from Aldy to Black transmitting two edited versions of the draft 30-day report Attachment #15 to OIG Report
16	Draft report (attached to e-mail in Attachment 15)	Revised version of the draft 30-day report Attachment #16 to OIG Report
17	Draft report (attached to e-mail in Attachment 15)	Revised version of draft 30-day report Attachment #17 to OIG Report
27	Draft reports	Two revised drafts of the report that were included as Attachments 16 and 17 to the OIG Report and described in Attachment 12
29	Draft memo and draft report	Draft cover memo and draft of the 30-day report
30	E-mail	E-mail from Black to Aldy transmitting a draft of the 30-day report
31	E-mail, two draft reports	E-mail from Black to Kemkar transmitting two revised versions of draft of the 30-day report
32	E-mail, two copies of draft report, draft memo	E-mail from Kemkar to Aldy transmitting two copies of a draft 30-day report and draft cover memo
33	E mail, draft report	E-mail from Black to Aldy with draft 30-day report
34	E-mail	E-mail from Kemkar to Black transmitting two revised versions of draft of the 30-day report

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

AUG 16 2011

The Honorable Doc Hastings
Chairman, Committee on Natural Resources
House of Representatives
Washington, DC 20515

Dear Chairman Hastings:

We are in receipt of your letter of August 15, 2011, regarding the Department's response to your April 25, 2011, letter seeking information on the Department of the Interior's Office of Inspector General Report of Investigation on the Federal Moratorium on Deepwater Drilling.

What follows is a response we had prepared to your April 25 request in light of our August 2, 2011 meeting with Committee staff. Because we believe the letter we have prepared responds to most of the requests you have identified as priority interests, we are providing this response as planned while we work to understand and accommodate remaining needs articulated to us.

While we disagree with some of the characterizations made in your August 15 letter, we very much appreciated the opportunity to meet with Committee staff in person on August 2 to facilitate their review of Attachment 12 of the the Office of Inspector General's 2010 report entitled "Federal Moratorium on Deepwater Drilling." This letter responds to the conversation between Committee staff and Department of the Interior personnel in that meeting regarding your April 25 letter.

The April 25 letter stated the Committee's view that the Office of Inspector General's report inadequately discussed the drafts of the Executive Summary and communications that the OIG reviewed, and requested information and documents "reviewed by the OIG in reaching its conclusion." Although the topic the Committee has expressed interest in – the manner in which the scope of the peer review was presented in the Executive Summary of the 30-Day Safety Report – was already publicly addressed by the Department and thoroughly examined by the independent OIG, which found no intent to mislead, the Department is committed to assisting the Committee in meeting its information needs regarding this issue.

We regret that your Committee staff was unable to fully access the information on the CD, including the eleven attachments to the OIG report. However, we have confirmed by testing a duplicate of the disk provided to the Committee that attachments 1 – 11 are available by either clicking on the citations to the attachments themselves within the text of the report, or by

clicking on the paper clip icon in the lower left-hand margin of the document. Should your staff continue to have difficulties accessing the information on the CD, we would be happy to assist them at their convenience.

We are pleased that the Department and Committee staff have engaged in a productive dialogue to help the Department accommodate the Committee's request for additional information regarding the documents at the heart of the OIG investigation.

We also appreciate acknowledgment in your August 15 letter of the accommodation reached with your staff regarding the review of an attachment to the OIG report that had not been included with the OIG report. As acknowledged in your letter, we had determined that attachment, an OIG Investigative Activity Report (IAR), implicates important confidentiality interests of the Executive Branch, as it describes in detail confidential, deliberative documents and communications between senior officials in the White House and the Department. This document provides the OIG's independent analysis and details the documents that your April 25 letter had criticized the OIG for inadequately describing in its report. The Department shared this document with Committee staff in order to assist the Committee with its oversight responsibilities while respecting Executive Branch interests.

As part of our July 29 conversation with Committee staff, as confirmed in our August 1 letter, we also had agreed to provide the Committee staff with an index of the remaining attachments to the OIG report that we have not provided because they implicate Executive Branch confidentiality interests. That document was provided on August 2, when Committee staff visited the Department to review the OIG IAR.

With this letter, the Department is offering additional accommodations in response to the questions raised by Committee staff in our August 2 meeting related to the scope of the peer review of the 30-Day Safety Report. Although attachments 13 and 15 of the OIG Report implicate important Executive Branch confidentiality interests, as an accommodation to the Committee, the Department invites Committee staff to the Department to view these documents at your convenience. Those attachments constitute all of the email communications between senior officials in the Department and White House staff that were described in the IAR.

As a further accommodation, we also are providing with this letter additional documents that the Committee has requested: copies of letters sent to the peer review scientists immediately following publication of the 30-Day Safety Report (we are not aware of any emails sent after the report regarding the representation of the scope of the peer review), as well as the official surname record of internal clearance of the 30-Day Safety Report. These documents are contained on the enclosed CD, titled "00028004_Hastings_001," and index.

We are committed to exploring further means of accommodating any remaining questions that the Committee has regarding the scope of the peer review for the 30-Day Safety Report in a way that respects Executive Branch confidentiality interests and the Department's resources. We

look forward to continuing to work with you on this matter, including by scheduling a time for Committee staff to view the documents described above.

Sincerely,

Christopher J. Mansour
Director
Office of Congressional and
Legislative Affairs

Enclosure

cc: The Honorable Doug Lamborn
Chairman, Subcommittee on
Energy and Mineral Resources

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

AUG 0 1 2011

The Honorable Doc Hastings, Chairman
House Committee on Natural Resources
1324 Longworth House Office Building
Washington, DC 20515

Dear Chairman Hastings:

The Department of the Interior is in receipt of your three letters, dated July 18, 2011, that relate to the status of several of the requests for documents and information that you have made to the Department and its bureaus during the 112th Congress.

Specifically, these letters address requests for documents and information that relate to –

- all lawsuits currently filed or pending against the Department of the Interior and its bureaus, agencies, and offices;
- the Office of Surface Mining, Regulation and Enforcement's ongoing Stream Protection rulemaking; and
- the Report of Investigation on the Federal Moratorium on Deepwater Drilling issued by the Department's Office of Inspector General.

As an initial matter, I want to be clear that the Department recognizes the legitimate and important oversight responsibility of the Natural Resources Committee, and we are committed to working with the Committee and its staff to provide material responsive to the Committee's information needs while respecting important Executive Branch confidentiality interests and recognizing the limited resources of the Department. In our efforts to respond to your letters, the Department has already responded with five letters that included substantial information responsive to the Committee's requests and over 10,500 pages of documents all of which required extensive staff time and resources. These responses, in the view of the Department, and as indicated in our letters, closed out many of the requests you have reiterated in your letters of July 18, 2011. Moreover, the Department continues to expend significant resources and staff time to collect, review and process documents for production to the Committee regarding your remaining requests.

Following a conversation with your Committee staff on Friday, July 29, 2011, we now understand that two of the Department's letters and accompanying documents delivered to the Committee in April and June, respectively, were apparently misrouted after delivery and never received by the appropriate staff. We have since redelivered the letters and documents.

We also remain committed to working with you and your staff to address any specific remaining needs of the Committee regarding responses that have been completed.

A detailed response addressing the substance of each of these letters is provided below.

Request for Information Related to Lawsuits

One of your July 18 letters relates to your May 4, 2011 request for information related to all lawsuits currently filed or pending against the Department and its bureaus, agencies, and offices, and delineates additional information relating to each case that you requested.

Along with staff from the Department's Office of the Solicitor, I discussed this request with Committee staff on May 19 and June 7. In both conversations, we indicated that the Department of the Interior does not have a centralized tracking system to enable us to readily provide information you requested and that we would coordinate with staff at the Department of Justice (DOJ) to most expeditiously obtain information from their litigation tracking systems. As you note in your letter, that information – provided by DOJ's Civil and Environment and Natural Resources Divisions and the Executive Office of United States Attorneys – was provided to you on June 20. The information provided was in the form of three indexes, comprising more than 240 pages.

Your July 18 letter indicates that "in subsequent conversations DOI and Committee staff agreed that DOI could first provide the Committee with a list of lawsuits which provided a majority of the requested information and then supplement this response with a list of the statutes implicated in each of the lawsuits." This is not our recollection of the conversations. We noted in those discussions that not all of the lists provided by the DOJ contained all of the information requested – in particular, identification of the statutes implicated in each of the lawsuits. Committee staff encouraged the Department to send what was available and indicated they would determine later whether any additional information was necessary. The Department did not commit to providing any further information and, in fact, has no other comprehensive source of such information available. As we noted in our June 20 letter, that letter and the enclosed DOJ tracking lists constituted our complete response to the Committee's May 4 request.

In a third conversation with your Committee staff on July 29 we explained that devoting staff time and departmental resources to searching publically available court dockets to determine the statutes at issue for each of the many hundreds of cases would be extremely burdensome for the Department. Committee staff agreed that this kind of search was not necessary at this time. We agreed to your staff's request that as a next step, the Department will again contact DOJ to

confirm that there is no readily available source for the information you've requested and to determine whether there are any alternative sources of information, such as statistics kept, that would fulfill the Committee's information needs. We will report to the Committee as soon as we have further definitive information from DOJ.

Request for Information Related to Stream Protection Rule

Another July 18 letter addressed responses to your requests to the Office of Surface Mining, Regulation and Enforcement and the Department regarding OSM's ongoing Stream Protection rulemaking, and seeks certain information requested in your February 10, 2011, letter to OSM and April 1, 2011, letter to the Department.

Your letter expresses your concern that in producing "some limited information and documents" and in making "representations to Committee staff about forthcoming productions and documents," the Department "has largely failed to provide a written response to a number of requests." In responding, let me first summarize our responses delivered to the Committee so far, two of which we now understand from Committee staff were apparently misrouted after delivery and never received by the appropriate staff:

- On June 17, the Department responded in writing to the February 10, 2011 letter, providing documents in response to items numbers 2 and 3 and explaining that item 1, in which the Committee seeks information on meetings and correspondence between the Director's office and other federal agencies and offices, implicates important Executive Branch confidentiality interests concerning deliberations on ongoing rulemaking proceedings, which constrain the Department's ability to respond.

- In letters dated May 13 and June 17, the Department responded in writing regarding three items of the four items listed in your April 1, 2011 letter and providing documents and information and explaining that item 2 implicated important Executive Branch confidentiality interests and that documents responsive to the remaining item (item 1) would be forthcoming.

- In letters dated March 1, April 6, and May 13, the Department provided written responses to the Committee's February 8 letter regarding the same rulemaking and provided the Committee both information and documents.

- OSM Director Joe Pizarchik has repeatedly offered to again make himself personally available to discuss where OSM was in the rulemaking process and the basis for the actions under consideration at the time, as well as to update you as OSM moves forward in the process (March 1, 2011, response; May 13, 2011, response; June 17, 2011, response). To our knowledge, the Committee has not taken the Director up on his offers.

In summary, the Department has worked diligently to accommodate the Committee's oversight interest in the Stream Protection rulemaking and related matters and responded in letters dated March 1, 2011; April 6, 2011; May 13, 2011; and June 17, 2011 with information and over 10,000 pages of documents. We continue to collect, review and process and will soon be in a position to share additional documents responsive to the April 1, 2011 letter. In a July 29 phone conversation with Committee staff, the Department learned that the letters and accompanying information delivered to the Committee on June 17 and April 6 did not reach appropriate staff for review. Those letters and documents have been redelivered to the Committee.

In our July 29 conversation, Committee staff agreed that they would review those responses before determining what, if any, specific additional information needs exist regarding the February 10 letter and items 2 through 4 from the April 1 letter. The Department committed to begin production of documents responding to item 1 of the April 1 letter by August 5 and stated our hope to complete that production within one month.

In addition to providing further documents in response to this one item in the April 1 letter, we remain ready and committed to working with the Committee to accommodate any specific concerns articulated by the Committee regarding responses already provided in a manner that satisfies those concerns while respecting the Executive Branch's confidentiality interests and the Department's limited resources.

Request for Information Related to Inspector General Report

Finally, your third letter addresses your request for documents underlying the Report of Investigation on the Federal Moratorium on Deepwater Drilling issued by the Department's Office of Inspector General (OIG) in November 2010. In that report, the OIG found no intent to mislead the public after a thorough investigation of the edits to the Executive Summary of the 30-Day Report to the President. Furthermore, the IG found that the Department had adequately remedied any concerns by communicating directly with the experts, offering a formal apology, and publicly clarifying the nature of the peer review of the 30-Day Report.

As we have explained in conversations with Committee staff, the documents and information requested in item (c) of your April 25 letter relate directly to the OIG's conduct of its investigation and are in the possession of the OIG. Through discussions between the Office of the Solicitor and staff in the OIG, we understand that some of the documents requested in your letter have been provided to you by OIG staff. With this letter, we are providing on a disk those documents relating to the OIG investigation that are in our possession and which do not implicate important Executive Branch confidentiality interests: the unredacted OIG report and eleven attachments.

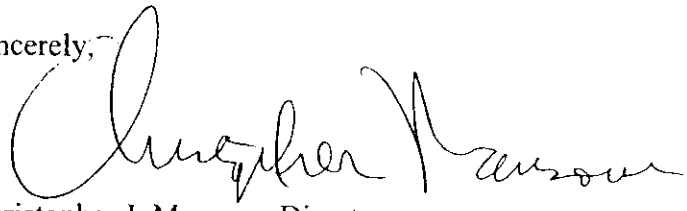
Regarding the remaining items in that letter, we have had several conversations with your staff seeking to fully understand the Committee's specific oversight interests in the hopes that we might better focus our search and accommodate the Committee's interests while still honoring

important confidentiality interests that serve to facilitate Executive Branch deliberations and respecting the limits of the Department's resources. Your staff have clarified that the request in item (e) regarding the "moratorium" references the 6-month moratorium on deepwater drilling in the Gulf of Mexico that was imposed and immediately followed the May 27, 2010 Report entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." However, additional clarity regarding your information needs in this area as well as for the request as a whole would help expedite our Department's response to your request and provide you with the information your Committee needs to fulfill its oversight function.

To help facilitate that process and provide an initial response to the Committee, in our July 29 conversation, the Department invited Committee staff to the Department to review one attachment to the OIG report that the OIG withheld from the Committee because it implicates important Executive Branch confidentiality interests. We continue to believe that the attachment, an OIG Investigative Activity Report ("IAR"), raises important confidentiality interests of the Executive Branch, as it describes in detail confidential, deliberative communications between senior officials in the White House and the Department. However, as an accommodation, we are prepared to share this OIG document with the Committee at this time in order to meet the Committee's information needs. Your staff agreed that this offer was a good step toward meeting the information needs of the Committee and that review has been scheduled for tomorrow, August 2. At the request of your staff, the Department agreed to provide an index of the remaining withheld attachments to the IG report. That index will be provided to your staff on August 2 when they arrive at the Department to review the IAR. Further, your staff committed that if the Committee has further information needs after reviewing the IAR and the index, the Committee would work with the Department to narrowly focus the Committee's request in a manner that respects Executive Branch confidentiality interests and the Department's limited resources.

We remain open to further discussion of this matter, as well as the status of the ongoing processing of these documents and any additional means of accommodation with your staff. We are hopeful that we can continue to move forward in a mutually respectful relationship.

Sincerely,



Christopher J. Mansour, Director
Office of Congressional and Legislative Affairs
U.S. Department of the Interior

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OFFICE OF THE CLERK

SUBPOENA

BY AUTHORITY OF THE HOUSE OF REPRESENTATIVES OF THE CONGRESS OF THE UNITED STATES OF AMERICA

To The Honorable Ken Salazar, Secretary of the Department of the Interior
Service: Christopher Mansour, Director of Congressional and Legislative Affairs

You are hereby commanded to be and appear before the Committee on Natural Resources

of the House of Representatives of the United States at the place, date and time specified below.

☐ **to testify** touching matters of inquiry committed to said committee or subcommittee; and you are not to depart without leave of said committee or subcommittee.

Place of testimony: _____

Date: _____ Time: _____

☑ **to produce the things identified on the attached schedule** touching matters of inquiry committed to said committee or subcommittee; and you are not to depart without leave of said committee or subcommittee.

Place of production: 1324 Longworth House Office Building

Date: April 10, 2012 Time: 12 noon

To U.S. Marshals Service or any designated staff member of the Committee on Natural Resources

_____ to serve and make return.

Witness my hand and the seal of the House of Representatives of the United States, at the city of Washington, this 30th day of March, 2012.

Chairman or Authorized Member

Attest: Robert F Reeves

Clerk

PROOF OF SERVICE

Subpoena for The Honorable Ken Salazar, Secretary of the Department of the Interior
Service: Christopher Mansour, Director of Congressional and Legislative Affairs

Address U.S. Department of the Interior, 1849 C Street NW, Washington DC 20240

before the Committee on Natural Resources

U.S. House of Representatives
112th Congress

Served by (print name) BYRON R. BROWN

Title SR. COUNSEL FOR OVERSIGHT

Manner of service BY HAND

Date APRIL 3, 2012

Signature of Server Byron R. Brown

Address 1324 LONGWORTH HOUSE OFFICE BUILDING

SCHEDULE OF DOCUMENTS

Unredacted and complete copies of:

1. All documents created, sent, or received by David Hayes, Thomas Strickland, Steve Black, Neal Kemkar, and Mary Katherine Ishee between April 26, 2010 and June 30, 2010 related to the development, editing, review, issuance, response, or reaction to the May 27, 2010 Department of the Interior ("Department") report entitled, "Increased Safety Measures for Energy Development on the Outer Continental Shelf".

2. All documents identified on the enclosure (Bates number 00032227 SOL-WDC-B01-00001-000001) to the Department's October 13, 2011 letter to the Committee relating to the May 27, 2010 Department report entitled, "Increased Safety Measures for Energy Development on the Outer Continental Shelf".

SCHEDULE INSTRUCTIONS

1. In complying with this subpoena, you shall produce all responsive documents that are in your possession, custody, or control.

2. Documents responsive to the subpoena shall not be destroyed, modified, removed, transferred, or otherwise made inaccessible to the Committee.

3. In the event that any entity, organization or individual denoted in the subpoena has been, or is currently, known by any other name than that herein denoted, the subpoena shall be read also to include them under that alternative identification.

4. Each document produced shall be produced in a form that renders the document capable of being copied.

5. When you produce documents, you shall identify the paragraph or clause of the Schedule of Documents in the Committee's subpoena to which the documents respond.

6. Documents produced in response to this subpoena shall be produced together with copies of file labels, dividers or identifying markers with which they were associated when this subpoena was issued. To the extent that documents were not stored with file labels, dividers, or identifying markers, they shall be organized into separate folders by subject matter prior to production.

7. Each folder and box shall be numbered, and a description of the contents of each folder and box, including the paragraph or clause of the Schedule of Documents in the Committee's subpoena to which the documents are responsive, shall be provided in an accompanying index.

8. It is not a proper basis to refuse to produce a document that any other person or entity also possesses a nonidentical or identical copy of the same document.

9. If any of the subpoenaed information is available in machine-readable or electronic form (such as on a computer server, hard drive, CD, DVD, memory stick, or computer back-up tape), you shall consult with Committee staff to determine the appropriate format in which to produce the information. Documents produced in electronic format shall be organized, identified, and indexed electronically in a manner comparable to the organizational structure called for in (6) and (7) above. Documents produced in an electronic format shall also be produced in a searchable format.

10. In the event that a document is withheld on any basis, you shall provide the following information concerning the document: (a) the reason the document is not being produced; (b) the type of document; (c) the general subject matter; (d) the date, author and addressee; and (e) the relationship of the author and addressee to each other.

11. If any document responsive to this subpoena was, but no longer is, in your possession, custody, or control, you shall identify the document (stating its date, author, subject and recipients) and explain the circumstances by which the document ceased to be in your possession, custody, or control.

12. If a date or other descriptive detail set forth in this subpoena referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the subpoena, you shall produce all documents which would be responsive as if the date or other descriptive detail were correct.

13. This subpoena is continuing in nature and applies to any newly-discovered document. Any document not produced because it has not been located or discovered by the return date shall be produced immediately upon location or discovery subsequent thereto.

14. All documents shall be bates-stamped sequentially and produced sequentially.

15. Two sets of documents shall be delivered to the Committee office in Room 1324 of the Longworth House Office Building. You shall consult with designated Committee staff regarding the method of delivery prior to sending any material.

16. Upon completion of the document production, you shall submit a written certification, signed by you or your counsel, stating that: (1) a diligent search has been completed of all documents in your possession, custody, or control which reasonably could contain responsive documents; and (2) all documents located during the search that are responsive have been produced to the Committee or identified in a privilege log provided to the Committee.

Definitions for Schedule

1. The term "document" means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, whether classified or unclassified, and whether original or copy, including, but not limited to, the following: memoranda, reports, expense reports, books, manuals, instructions, financial reports, working papers, records notes, letters, notices, confirmations, telegrams, receipts, appraisals, pamphlets, magazines, newspapers, prospectuses, interoffice and intra office communications, electronic mail (e-mail), contracts, cables, notations of any type of conversation, telephone calls, meeting or other communications, bulletins, printed matter, computer printouts, teletypes, invoices, transcripts, diaries, analyses, returns, summaries, minutes, bills, accounts, estimates, projections, comparisons, messages, correspondence, press releases, circulars, financial statements, reviews, opinions, offers, studies and investigations, questionnaires and surveys, and work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto). The term also means any graphic or oral records or representations of any kind (including without limitation, photographs, charts, graphs, voice mails, microfiche, microfilm, videotape, recordings and motion pictures), electronic and mechanical records or representations of any kind (including, without limitation, tapes, cassettes, disks, computer server files, computer hard drive files, CDs, DVDs, memory sticks, and recordings) and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape or otherwise. A document bearing any notation not a part of the original text is to be considered a separate document. A draft or non-identical copy is a separate document within the meaning of this term.

2. The term "Committee" means the Committee on Natural Resources of the U.S. House of Representatives.

3. The term "documents in your possession, custody, or control" mans (a) documents that are in your possession, custody, or control, whether held by you or your past or present agents, employees, or representatives acting on your behalf; (b) documents that you have a legal right to obtain, that you have a right to copy, or to which you have access; and (c) documents that you have placed in the temporary possession, custody, or control of any third party.

4. The term "communication" means each manner or means of disclosure or exchange of information, regardless of means utilized, whether oral, electronic, by document or otherwise, and whether face-to-face, in a meeting, by telephone, mail, telexes, discussions, releases, personal delivery, or otherwise.

5. The terms "and" and "or" shall be construed broadly and either conjunctively or disjunctively to bring within the scope of this subpoena any information which might otherwise be construed to be outside its scope. The singular includes plural number, and vice versa. The masculine includes the feminine and neuter genders.

6. The terms "person" or "persons" means natural persons, firms, partnerships, associations, corporations, subsidiaries, divisions, departments, joint ventures, proprietorships, syndicates, or other legal, business or government entities, and all subsidiaries, affiliates, divisions, departments, branches, and other units thereof.

7. The terms "referring or relating," with respect to any given subject, means anything that constitutes, contains, embodies, reflects, identifies, states, refers to, deals with or is in any manner whatsoever pertinent to that subject.

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Washington, DC 20515

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JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

February 23, 2012

The Honorable Ken Salazar
Secretary
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, DC 20240

Dear Mr. Secretary:

On April 25, 2011, we wrote the Department of the Interior ("Department") to request documents about White House edits to the Executive Summary of the final report entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf" ("ISM Report"). On the same date, we wrote separately to the Department's Office of Inspector General ("OIG") requesting documents related to its investigation into the editing of the ISM Report. The OIG's November 2010 report of its investigation "determined that the White House edit of the original DOI draft Executive Summary led to the implication that the moratorium recommendation had been peer reviewed by the experts."

To date, the OIG has provided us 34 documents, including copies of its final report and investigator notes. However, the OIG has been unable to provide copies of 13 documents pursuant to directions from the Department's Solicitor's Office to withhold them from us. In the 9 months since our request, the Department has provided us copies of 86 separate documents that largely reflect communications between senior Department officials and the peer reviewers after the ISM Report was issued. In its February 2, 2012 response, the Department mischaracterized our investigation as focusing on the OIG report, when we have been clear from the outset that we are reviewing the edits made to the ISM Report by Departmental and White House officials and that the OIG report does not adequately describe the documents and communications surrounding this issue. As part of this response, the Department also provided a copy of a 1-page memorandum dated April 20, 2010 from Secretary Salazar to senior managers instructing them to cooperate with OIG investigations generally. This memorandum predated the development of the ISM Report and the OIG's investigation into the White House edits and is not responsive to our request. The Department is continuing to withhold an untold number of documents that do

get to the heart of our investigation, including drafts of the ISM Report, instructions to the peer reviewers and their comments on the draft ISM Report, and communications internal to the Department and between the White House concerning the editing of the ISM Report and the peer reviewer's comments.

On February 17, 2012, the Department made available three of these 13 OIG documents for inspection by the Committee's majority oversight staff and provided limited information about other withheld OIG and Department documents. The limited number of documents that the Department has made available to us has left significant questions unanswered. The Departmental staff who accompanied these documents for review by the Committee's majority oversight staff did not have first-hand knowledge of the activities that are the subject of our investigation and were not in a position to provide the information we are seeking. The Committee's majority oversight staff will be conducting interviews of Department officials who may have knowledge of the activities that are the subject of this investigation. As a first step in this process, we request that a schedule be established by the close of business on February 28, 2012 for the interviews of the following officials:

- Steve Black, Counselor to the Secretary
- Mary Katherine Ishee, Senior Advisor, Office of Surface Mining, Reclamation and Enforcement (former Deputy Administrator, Minerals Management Service)
- Walter Cruickshank, Deputy Director, Bureau of Ocean Energy Management (former Deputy Administrator, Minerals Management Service)
- Kallie Hanley, White House Liaison & Special Assistant

Witnesses may be represented by personal counsel at these interviews. Department counsel may be allowed to accompany the witness and be present during an interview with employees of the Department on a case by case basis where such presence would not involve a conflict of interest or otherwise potentially impede our ability to conduct an effective, fair, and efficient interview. Witnesses are not placed under oath in an interview; however, witnesses are required by law to be truthful in answering questions from Congress. A witness or his or her personal counsel may raise an objection to a question. If such an objection cannot be resolved in the interview, the witness may be compelled to appear for a hearing. Under Committee rule 4(h), claims of common-law privileges are applicable only at the discretion of the Chairman. Witnesses will be given an opportunity to review at the Committee's offices any interview transcript generated as part of the interview and may be allowed to submit grammatical or typographical changes on a copy of the transcript itself but must submit in writing to the Committee any suggested substantive corrections to the transcript. Any such transcripts are for the official use of the Committee and copies of transcripts are not given to the witnesses. Careful consideration is given to any concerns a witness may raise regarding the public dissemination of any parts of the transcript.

Please contact us, or have your staff contact Byron R. Brown, Senior Counsel for Oversight, Office of Oversight and Investigations, to make arrangements for the scheduling of these interviews.

Thank you for the Department's prompt attention to and cooperation with this matter.

Sincerely,

Doc Hastings
Chairman
Natural Resources Committee

Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

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JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

January 31, 2012

The Honorable Ken Salazar
Secretary
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, DC 20240

Dear Mr. Secretary:

This letter is a follow up to our January 25, 2012 letter providing the Department of the Interior ("Department") a final opportunity to comply with our April 25, 2011 request for documents about White House edits to the Executive Summary of the final report entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf" ("ISM Report") and notice of our intent to move to compel production of these documents if the Department does not voluntarily provide them. The edits in question implied that the moratorium had been peer reviewed by technical experts, who had provided input into the report's recommendations when, in fact, they had not reviewed or endorsed the moratorium in the Executive Summary of the final report. A November 8, 2010 report from the Department's Office of Inspector General ("OIG") "determined that the White House edit of the original DOI draft Executive Summary led to the implication that the moratorium recommendation had been peer reviewed by the experts." As explained in our January 25 letter, almost 4 months passed before the Department released 15 pages of documents that had not already been provided by the Department's OIG. In a letter dated August16, 2011, the Department provided copies of 7 almost identical form letters sent by Deputy Secretary David Hayes apologizing to the peer reviewers for falsely conveying their endorsement of the six-month drilling moratorium, totaling 14 pages, along with a copy of the 1-page internal management clearance form for the final report.

Our January 25 letter also expressed concern with the adequacy of the Department's search for documents. For example, during an August 19, 2011, meeting, Department staff informed Committee staff they had not identified any emails sent *after* the report was issued between Department staff and the peer reviewers. However, they explained the search had been limited to only the email files of only one DOI official, Steve Black. Committee staff responded that the Department needed to search the email files of additional Department staff, Neal Kemkar. In a September 28, 2011 letter, we said we expected the Department to produce by

October 5, 2011 emails sent between the additional Department staff and peer reviewers after release of the ISM Report. After passage of this deadline with no response, we sent a letter on October 13, 2011 reiterating our request for these emails. Several days later, we received a letter dated October 13, 2011 from Department staff stating the Department was still in the process of searching for and processing these emails and it expected "to respond to the Committee's request regarding these communications in the near future."

Since our January 25 letter, a review of our files identified a letter from the Department dated October 24, 2011, stating that a search of the Department's email archives identified communications between the peer reviewers and both Mr. Kemkar *and* Mr. Black. The Department's October 24 letter also stated it was providing 112 documents totaling 919 pages. While this production expands the number of pages provided by the Department beyond the 15 not already provided by the OIG, a review of this material shows that the Department has provided only 70 unique documents, not 112 documents as the letter suggests.

To be clear, Department staff informed Committee staff on August 19 that a search of Mr. Black's emails had not identified any responsive records. When pressed by the Committee to conduct an additional search focusing on Mr. Kemkar's files, the Department belatedly found emails involving Mr. Black that the Department had previously said did not exist. It is also unclear from the Department's response whether it is withholding any responsive documents from Mr. Black's and Mr. Kemkar's files, including any internal DOI communications concerning the peer reviewers' comments. Based on this response, we remain seriously concerned about the Department's efforts to comply with our request.

Given the uncertainties involving the Department's prior searches for documents, the Department should be conducting new searches as necessary to respond to our January 25 letter. That letter specifically sought documents generated by, received by, or prepared for Elizabeth Birnbaum, Walter Cruikshank, Mary Katherine Ishee, David Hayes, Steve Black, Neal Kemkar, Hilary Tompkins, Constance Rogers, Wilma Lewis, and Rhea Suh between the dates of April 20, 2010 and June 30, 2010, including any documents prepared for or sent to Secretary Salazar. Based on our review of the material provided by the OIG, it is expected that such documents exist and the Department should be able to locate them without any undue delay or burden. We also continue to object to the Department's refusal to provide us with copies of the 13 OIG documents that the Solicitor's Office has claimed are covered by an Executive Branch confidentiality interest or do not pertain to our investigation.

The materials provided with the October 24 response do not fully satisfy any of the final requests we made in last week's letter, and we continue to expect the Department to provide the documents identified in our January 25 letter, in accordance with our stated deadlines. An attachment to this letter provides additional information about responding to the Committee's request, including definitions and instructions for compliance.

We continue to request the Department provide this information by February 9, 2012:

1. Documents concerning the decision to include a moratorium in final ISM Report, including any analysis of legal authority for or economic impacts from the 6-month moratorium included in the Executive Summary.

2. Documents, including emails or other communications, concerning edits, revisions, or changes to the draft Executive Summary of the ISM Report made prior to May 25, 2010.

3. Documents, including emails or other communications, concerning edits, revisions, or changes to the draft Executive Summary of the ISM Report made on or after May 25, 2010.

4. Documents concerning communications with the peer reviewers, including emails or other documents transmitting drafts of the ISM Report and/or Executive Summary to the peer reviewers and talking points or other materials, meeting summaries, or staff notes concerning any conference calls or meetings with peer reviewers that occurred in May 2010.

5. Documents related to the apology letter David Hayes sent to peer reviewers on or about June 4, 2010, including drafts of the letters.

6. Documents concerning any conference calls and/or any follow up meeting between Secretary Salazar and peer reviewers during June 2010, including emails, calendar entries, talking points or other briefing materials, and meeting notes.

7. Documents concerning drafts of any press releases or communications materials concerning the release of the ISM Report and/or the 6-month moratorium referenced in the Executive Summary of the ISM Report.

In addition, due to the Department's lack of compliance to date, we request the Department provide the following information by February 2, 2012:

8. Documents, including emails or memoranda, sent by the Department to staff with instructions for assisting with or responding to the OIG's 2010 investigation into the editing of the ISM Report.

9. Documents, including emails, sent by the Department instructing staff to search for and/or collect records responsive to our April 25 request to the Department.

10. Copies of the 13 OIG documents the Department claims are either not responsive or withheld on a claim of Executive Branch confidentiality interest.

11. Copies of any emails related to communications with the peer reviewers, as described in our September 28 and October 13, 2010 letters, not previously provided to us.

12. A copy of any index of administrative record prepared for the *Hornbeck* litigation challenging the 6-month moratorium referenced in the Executive Summary of the ISM Report.

Please contact us, or have your staff your staff contact Byron R. Brown, Senior Counsel for Oversight, Office of Oversight and Investigations, with any questions regarding this request, or to make arrangements for the production of the requested material.

Thank you for the Department's prompt attention to this matter.

Sincerely,

Doc Hastings
Chairman
Natural Resources Committee

Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

508868

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Responding to Committee Document Requests

A. Definitions

1. The term "document" means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, recorded notes, letters, notices, confirmations, receipts, checks, envelopes, presentations, pamphlets, brochures, interoffice and intra office communications, electronic mails (e-mails), notations of any type of conversation, telephone call, voice mail, phone mail, meeting or other communication, diaries, analyses, summaries, messages, correspondence, circulars, opinions, work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto), and electronic, mechanical, and electric records or representations of any kind, and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape, or otherwise.

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1. In complying with this document request, you are required to produce all responsive documents, materials, or items that are in your possession, custody, or control, whether held by you or your past or present agents, employees, representatives, subsidiaries, affiliates, divisions, partnerships, and departments acting on your behalf. You are also

required to produce documents that you have a legal right to obtain, that you have a right to copy or to which you have access, as well as documents that you have placed in the temporary possession, custody, or control of any third party. No records, documents, date or information called for by this request shall be destroyed, modified, removed, transferred or otherwise made inaccessible to the Committee.

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January 25, 2012

508653

The Honorable Ken Salazar
Secretary
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, DC 20240

Dear Mr. Secretary:

RECEIVED 2012 JAN 26 PM 3:40 EXEC SECRETARIAT

It is with disappointment and deep frustration that we must again write regarding the Department of the Interior's failure to comply in a meaningful way to our April 25, 2011 request seeking 5 categories of documents related to White House edits that led to the inclusion of the 6 month Gulf of Mexico drilling moratorium in the Executive Summary of the final May 27, 2011 report entitled, "Increased Safety Measures for Energy Development on the Outer Continental Shelf" ("ISM Report"). The revisions in question implied that the moratorium had been peer reviewed by technical experts, who had provided input into the report's recommendations, when in fact, they had not reviewed or endorsed the moratorium in the Executive Summary of the final report. A November 8, 2010 report from the Department's Office of Inspector General ("OIG") "determined that the White House edit of the original DOI draft Executive Summary led to the implication that the moratorium recommendation had been peer reviewed by the experts." Many months have passed and yet the Department has provided virtually no responsive materials and, in fact, has blocked the OIG from providing documents requested by the Committee. This letter provides notice of our intent to move to compel cooperation and production of documents and communications in accordance with the deadlines listed below.

I. Department's Failure to Comply

Since our April 25, 2011 request, the Department has flouted this inquiry and defied repeated efforts to obtain documents and communications related to this matter. To be clear, during this nine months the Department has provided 15 pages of documents responsive to the requests that were not already disclosed by the OIG.

Following our April 25, 2011 request letter, an inquiry was received from Department staff in May 2011 seeking clarification of one part of the request, which was promptly provided.

Then, not a single page of responsive material was provided by the Department until August 1, 2011, when the Department provided us copies of the OIG's report and 11 attachments – all of which the OIG had already promptly provided to us on May 11, 2011. Despite having provided no information that was not already in our possession, the Department said in this August 1, 2011 communication that it could not further respond to our request without additional clarification. Our original April 25, 2011 request sufficiently described the narrow universe of information sought and the fact that the Department produced not a single document or communication that was not assembled and already disclosed by the OIG is not due to a lack of clarity, but a lack of compliance.

The request seeks 5 categories of documents related to the editing of the Executive Summary, including drafts and emails transmitting edits to Executive Summary of the final ISM Report and communications with the peer reviewers on the draft. The Department is certainly aware of which Department officials, likely limited in number, would have been engaged in editing and review of this document, and these activities occurred only during a defined period of time between April and June 2010. However, the Department has provided zero documents in response.

During an August 2, 2011 meeting, Committee staff reiterated that full compliance with the request was expected and provided specific subjects within our request that we wanted the Department to address in its response: information about who from the White House was involved in editing the document, communications between the Department and the peer reviewers before and after the ISM Report was issued, and the internal management clearance form for the report. In an August 15, 2011 letter, we encouraged the Department to seek clarification promptly of the request as necessary, adding the "fact that an item request may require the production of a large number of documents or documents that DOI prefers not to produce does not make the request unclear." In a letter dated August16, 2011, the Department provided copies of seven almost identical form letters sent by Deputy Secretary David Hayes apologizing to the peer reviewers for falsely conveying their endorsement of the six-month drilling moratorium, along with a copy of the internal management clearance form for the final report. We do not understand why it took the Department almost 4 month to provide us with these 8 documents totaling just 15 pages. All the more incredible is that these 15 pages are the sum total to date of the Department's own efforts to respond to our request.

We also have very real concerns about the adequacy of the Department's search for documents. For example, during an August 19, 2011, meeting, Department staff informed Committee staff they had not identified any emails between Department staff and the peer reviewers sent *after* the report was issued and explained the search had been limited to only the email files of only one DOI official. Committee staff responded that the Department needed to search the email files of additional Department staff. In a September 28, 2011 letter, we said we expected the Department to produce by October 5, 2011 emails sent between the additional Department staff and peer reviewers after release of the ISM Report. After passage of this deadline with no response, we sent a letter on October 13, 2011 reiterating our request for these emails. Several days later, we received a letter dated October 13, 2011 from Department staff stating the Department was still in the process of searching for and processing these emails and it

expected "to respond to the Committee's request regarding these communications in the near future." We are still awaiting the Department's response three months later.

To be clear, documents concerning communications between Department officials and White House staff or with the peer reviewers about drafts of the ISM Report were included within the scope of our original April 25 request, and our subsequent efforts to provide clarity to the Department were intended to prod compliance and in no way diminished our repeatedly stated interest in obtaining all documents concerning these communications. Our understanding is that Department officials communicated with the peer reviewers on or about May 23, 2010 as part of their review of the draft ISM Report, that after the final report was issued one of the peer reviewers personally contacted a DOI official who later informed you about his concerns with the Executive Summary and then drafted the apology letter, and that you hosted a conference call with the peer reviewers in June 2010. Yet the Department has provided no documents on these matters in the nine months since our request, including drafts of the apology letters, emails concerning the peer reviewers comments to DOI staff before and after the ISM Report was issued, or the June 2010 conference call with the peer reviewers.

II. Department's Deliberate Withholding of Office of Inspector General Documents

In addition to its near total defiance of our oversight requests, the Department has intervened and frustrated our attempts to obtain information from the OIG about its investigation into the editing of the ISM Report. The Department has actively prevented the OIG from providing documents to us.

As described above, we sent a separate request to the OIG also on April 25, 2011. The OIG promptly responded on May 11, 2011 and provided us with a copy of its November 2010 investigative report and copies of 11 attachments to the report. The OIG's response, however, informed us it was unable to provide 6 additional attachments that the Department's Office of Solicitor had claimed "reflect or constitute predecisional and deliberative interagency communications relating to the manner in which the 30-Day Safety Report was finalized, and thus raise important confidentiality interests of the Executive Branch." The OIG's letter said the Solicitor's Office would be communicating directly with us to discuss its claim. The OIG concluded by clarifying that its investigation was "unable to independently conclude whether the implications contained in the 30-Day Report were intentional or not."

We did not receive any communication from the Department about its concerns until after we sent a follow up letter on July 18, 2011. During a July 29, 2011 conference call, Solicitor's Office staff offered to provide an index of the 6 withheld attachments and to allow Committee staff to review 1 of the 6 withheld attachments. Committee staff agreed to this as an interim step but reiterated that we continued to expect compliance with the full request. During the August 2 meeting described above, Committee staff reviewed this 1 attachment: a copy of an OIG document summarizing emails between DOI senior officials and White House staff sent May 26, 2010 and May 27, 2010 that were transmitting edits to the Executive Summary.

In a letter dated August 1, 2011 letter, Department staff stated that it was unable to provide us with a copy of that one withheld attachment because it implicated important Executive Branch confidentiality interests. It did not provide any explanation about why it could not provide the other 5 documents being withheld. As described above, we sent a letter to you on August 15, 2011 expressing frustration with the Department's response to this and two other requests for information. In a letter dated August 16, 2011, your staff offered to make available for inspection two more of the withheld attachments to the OIG report. [As described above, this letter also transmitted copies of the apology letter Deputy Secretary Hayes sent to the peer reviewers and the internal management clearance form for the final report.]

On August 19, 2011, Committee staff reviewed these 2 withheld OIG attachments: copies of two emails between Department officials and White House staff transmitting the drafts of the Executive Summary that were discussed in the other OIG attachment Committee staff had reviewed on August 2. The Department's August 16 letter states these two emails "constitute all of the email communications between senior officials in the Department and White House staff that were described in the [previously reviewed OIG document]." However, this narrow response does not make clear whether the Department has other potentially responsive documents reflecting communications with the White House or edits made by the White House that were not described in the OIG document.

In a letter dated August 17, 2001, the OIG provided us an additional 22 documents and informed us that it was unable to provide an additional 7 documents it had identified per directions from the Department's Solicitor's Office. So, at the aforementioned August 19, 2011 meeting, Committee staff requested copies of the 7 newly identified OIG documents that the Department was withholding, to which Department staff responded they could not provide these 7 documents until after they had reviewed them. In the letter dated September 28, 2011 discussed above – sent almost a month and a half after we were first informed that the Department needed to review the 7 newly identified OIG documents – we reiterated our request for the 7 documents supposedly undergoing review. After no response, we sent yet another letter on October 13, 2011, demanding full and complete compliance with the request. It is difficult to comprehend how it could legitimately take the Department two months to review these 7 documents.

By letter dated October 13, 2011, Department staff responded that the 7 newly identified OIG documents concern Executive Branch confidentiality interests and "do not pertain to the subject of your inquiry." It is not appropriate for the Department to unilaterally determine what does or does not pertain to our investigation. It also strains credulity to say the documents in question, which were compiled by the OIG as part of its investigation into the White House's editing of the ISM Report, do not pertain to our investigation into the White House's editing of the ISM report. The Department has also asserted that these documents implicate some confidentiality interest without claiming any specific privilege and offers a belated "accommodation" of providing Committee staff with more information on these documents. This is unacceptable and is consistent with the pattern of delay the Department employs in response to the Committee's requests.

We have difficulty understanding the Department's concern about releasing these OIG documents, other than the fact some of them discuss communications between Department officials and White House staff. That alone is an insufficient excuse for withholding the OIG documents from the Committee. The events discussed in the documents are already publicly known and reflected in the OIG's public November 2010 report. Furthermore, disclosure of these documents could not injure an ongoing deliberative process, as the ISM Report was finalized and publically released a year and a half ago and already subject to litigation, which the Department lost. The production of all 13 documents that the Department has blocked the Inspector General from providing is expected by February 1, 2012 absent a valid claim of Executive Privilege by the President.

III. Department's Vague Privilege Claims are Without Merit

We have exhibited considerable patience and restraint in light of the Department's disregard for this legitimate oversight request. The Department has generally and vaguely said a number of the documents we are seeking implicate confidentiality interests of the Executive Branch. As has been explicitly expressed in multiple letters and staff conference calls, the generalized claim of an Executive Branch confidentiality interest is not a legal basis for withholding information from Congress. Even if this claim could be considered a privilege assertion, as we have noted to you on numerous occasions, including our April 25 request letter and July 18 and August 15 follow up letters, claims of privileges are considered under Committee on Natural Resources Rule 4(h) and, similar to all common-law privileges, are applicable only at the discretion of the Chairman. We are especially troubled by the Department's apparent disregard for our oversight authority, notwithstanding the President's stated commitment to create "*an unprecedented level of openness in Government.*" See Memorandum for the Heads of Executive Departments and Agencies regarding Transparency and Open Government, Jan. 21, 2009. (Emphasis added.)

The President has advised agencies that "*[i]n the face of doubt, openness prevails. The Government should not keep information confidential merely because public officials might be embarrassed by disclosure, because errors and failures might be revealed, or because of speculative or abstract fears. Nondisclosure should never be based on an effort to protect the personal interests of Government officials at the expense of those they are supposed to serve.*" See Memorandum for the Heads of Executive Departments and Agencies regarding Freedom of Information Act, Jan. 21, 2009. (Emphasis added.) As part of the Department's efforts to implement the President's policy in favor of openness, you issued a memorandum on July 2, 2009 to all Department employees that, "*The Department will only withhold information when we reasonably can foresee that its release would harm an interest protected by a FOIA exemption (e.g., our national security or the privacy interests of individuals) or when disclosure is prohibited by statute. The President's and Attorney General's messages extend beyond the boundaries of the FOIA. They call upon agencies to aggressively increase proactive disclosures of information that is of interest to the public, thus vastly increasing information that is available on the internet. Our goal is to increase transparency.*" (Emphasis added.)

To date, the Department has asserted a generalized claim of an Executive Branch confidentiality interest as the reason for refusing to provide requested material. As we expressed in the letter dated August 15, 2011, this is not a legal basis for withholding information from Congress. The Department has failed to provide a detailed privilege log identifying the documents it is withholding in full or in part and the legal basis that would justify applicability of a privilege to the withheld information, despite repeated requests for the Department to do so.

As best we understand the Department's arguments to date, the Department considers certain withheld information to be protected from disclosure to Congress by the deliberative process privilege. As a qualified privilege, the deliberative process privilege is not an absolute bar against disclosure and, regardless, cannot be used to shield purely factual information. Even under its faulty logic, the Department would be obligated to examine each document and provide non-privileged portions in response to a public request under the Freedom of Information Act ("FOIA"). The Department's response to our April 25 request appears to fall short even of what it would be obligated to provide the public under FOIA. In contrast, the Department here is making a blanket claim of the privilege to withhold broad categories of information from Congress and appears to be refusing to provide even non-exempt documents or portions of documents or a detailed explanation of its search and withholdings. This is unacceptable and cannot continue.

IV. Final Opportunity for the Department to Comply

It is expected that the following items will be provided by the Department no later than February 9, 2012. Although these subject areas were encapsulated within the categories of documents in our April 25 request, we request the Department provide copies of these specific documents described below by this date. This in no way limits or excuses the Department from full compliance with complying with these prior, standing requests not reflected below. Please focus your response on documents generated by, received by, or prepared for Elizabeth Birnbaum, Walter Cruikshank, Mary Katherine Ishee, David Hayes, Steve Black, Neil Kemkar, Hilary Tompkins, Constance Rogers, Wilma Lewis, and Rhea Suh between the dates of April 20, 2010 and June 30, 2010, including any documents prepared for or sent to Secretary Salazar. Based on our review of the material provided by the OIG, it is expected that such documents exist and the Department should be able to locate them without any undue delay or burden. An attachment to this letter provides additional information about responding to the Committee's request, including definitions and instructions for compliance.

1. Documents concerning the decision to include a moratorium in final ISM Report, including any analysis of legal authority for or economic impacts from the 6-month moratorium included in the Executive Summary.

2. Documents, including emails or other communications, concerning edits, revisions, or changes to the draft Executive Summary of the ISM Report made prior to May 25, 2010.

3. Documents, including emails or other communications, concerning edits, revisions, or changes to the draft Executive Summary of the ISM Report made on or after May 25, 2010.

4. Documents concerning communications with the peer reviewers, including emails or other documents transmitting drafts of the ISM Report and/or Executive Summary to the peer reviewers and talking points or other materials, meeting summaries, or staff notes concerning any conference calls or meetings with peer reviewers that occurred in May 2010.

5. Documents related to the apology letter David Hayes sent to peer reviewers on or about June 4, 2010, including drafts of the letters.

6. Documents concerning any conference calls and/or any follow up meeting between Secretary Salazar and peer reviewers during June 2010, including emails, calendar entries, talking points or other briefing materials, and meeting notes.

7. Documents concerning drafts of any press releases or communications materials concerning the release of the ISM Report and/or the 6-month moratorium referenced in the Executive Summary of the ISM Report.

In addition, due to the Department's lack of compliance to date, we request the Department provide the following information by February 2, 2012:

8. Documents, including emails or memoranda, sent by the Department to staff with instructions for assisting with or responding to the OIG's 2010 investigation into the editing of the ISM Report.

9. Documents, including emails, sent by the Department instructing staff to search for and/or collect records responsive to our April 25 request to the Department.

10. Copies of the 13 OIG documents the Department claims are either not responsive or withheld on a claim of Executive Branch confidentiality interest.

11. Copies of any emails related to communications with the peer reviewers, as described in our September 28 and October 13, 2010 letters.

12. A copy of any index of administrative record prepared for the *Hornbeck* litigation challenging the 6-month moratorium referenced in the Executive Summary of the ISM Report.

Please contact us, or have your staff your staff contact Byron R. Brown, Senior Counsel for Oversight, Office of Oversight and Investigations, with any questions regarding this request, or to make arrangements for the production of the requested material.

Thank you for the Department's prompt attention to this matter.

Sincerely,

Doc Hastings
Chairman
Natural Resources Committee

Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

Responding to Committee Document Requests

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JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

October 13, 2011

The Honorable Ken Salazar
Secretary
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, DC 20240

Dear Mr. Secretary:

On September 28, 2011, the Committee once again wrote you to request that the Department of the Interior (DOI) provide documents and information relating to the Committee's investigation into whether senior officials of DOI, in an effort to help justify their decision to impose a 6-month moratorium on deepwater drilling in the Gulf of Mexico, misrepresented that the moratorium was reviewed and supported by a group of scientists and industry experts. Specifically, the Committee requested copies of the seven emails that were withheld by DOI's Office of the Inspector General per instructions from DOI's Office of the Solicitor, and any email communications between Mr. Kemkar and the engineers following the release of report "Increased Safety Measures for Energy Development on the Outer Continental Shelf" by October 5, 2011. The Committee did not receive a response from DOI.

As you are aware, the Committee began its investigation in July 2010 and the Committee's first request for documents and information to DOI was made in April 2011. Although some documents have been made available for review by Committee staff, taken as a whole, DOI's response can best be characterized as an exercise in deliberate delay and noncompliance. Couched with claims of limited resources and privilege concerns, DOI continually professes the desire to be responsive to the Committee's requests, but has only allowed a limited review of several documents or provided publically available documents and often does not provide any written response until after the deadline imposed by the Committee has passed. We are frustrated by these tactics and pattern of delay and the non-response to official Congressional oversight of DOI. Over six months have passed, and on numerous occasions, the Committee has requested DOI produce the requested documents and information, and the Committee continues to wait for DOI to fully comply with all the requests.

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Consequently, this letter serves as a final request for complete compliance with the requests for documents and information under the terms contained in the Committee's letters dated information and documents by letters of April 25, 2011; July 18, 2011; August 15, 2011; and September 28, 2011. DOI's response is due no later than October 17, 2011. If DOI fails to once again meet the Committee's deadline, we will consider exercising the Committee's authority to compel compliance with the requests through the issuance of subpoenas.

Sincerely,

Doc Hastings
Chairman
Natural Resources Committee

Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

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TODD YOUNG
CHIEF OF STAFF

U.S. House of Representatives
Committee on Natural Resources
Washington, DC 20515

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JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

September 28, 2011

The Honorable Ken Salazar
Secretary
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, DC 20240

Dear Mr. Secretary:

As you are aware, the Committee is conducting an investigation into whether senior officials of the U.S. Department of the Interior (DOI), in an effort to help justify their decision to impose a 6-month moratorium on deepwater drilling in the Gulf of Mexico, misrepresented that the moratorium was reviewed and supported by a group of scientists and industry experts. The Committee has requested documents and information from both DOI and DOI's Office of the Inspector General.

On August 17, 2011, DOI's Office of the Inspector General produced a number of documents to the Committee, but withheld thirteen documents, including seven documents which are email communications between senior DOI officials and the White House based on instructions received from DOI's Office of the Solicitor. On August 19, 2011, Committee staff met with DOI staff to review attachments 13 and 15 the DOI's Office of Inspector General's Report of Investigation on the Federal Moratorium on Deepwater Drilling (Report of Investigation). This meeting was part of an ongoing process that Committee staff has been engaged in with DOI staff to obtain responsive documents from DOI. During this meeting, Committee staff requested copies of the seven emails that were withheld by DOI's Office of the Inspector General. DOI staff indicated that they had recently learned of the emails and had not yet completed a review of the emails. Because it has been several weeks since this meeting, the Committee is confident that DOI has had sufficient time to review these seven emails, and requests that the seven emails now be provided to the Committee no later than October 5, 2011. These emails clearly fall within the Committee's original request to DOI for documents and information relating to the Report of Investigation made in April and reiterated in July.

Additionally, at the August 19th meeting, DOI staff informed Committee staff that they had conducted a search for any email communications between DOI and the engineers after the Report "Increased Safety Measures for Energy Development on the Outer Continental Shelf"

was made public and that no emails had been located. Committee staff had requested these emails be produced during a meeting with DOI staff held on August 2nd. DOI staff, however, limited the search to Steve Black's email account. At the August 19th meeting, Committee staff requested that the search be expanded to include a search of Neil Kemkar's archived email account. The Committee requests that copies any email communications between Mr. Kemkar and the engineers following the release of the report referenced above also be produced to the Committee no later than October 5, 2011.

We look forward to DOI producing these documents and fulfilling its obligation to respond to Committee's requests.

Sincerely,

Doc Hastings
Chairman
Natural Resources Committee

Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

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JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

August 15, 2011

The Honorable Ken Salazar
Secretary
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, DC 20240

Dear Mr. Secretary:

The Committee is in receipt of the August 1, 2011 letter from the Department of the Interior's (DOI) Office of Congressional and Legislative Affairs relating to the status of several formal document and information requests the Committee has made to the DOI and its bureaus during the 112th Congress. Although the August 1st letter discusses the requests collectively, because the issues regarding DOI's compliance in each matter vary, for the purpose of clarity, the Committee will address each in separate correspondences. In this letter, the Committee will specifically speak to DOI's response to date and statements contained in the August 1st letter concerning the DOI's Office of Inspector General's Report of Investigation on the Federal Moratorium on Deepwater Drilling (Report of Investigation). The Committee's original request to DOI for documents and information relating to the Report of Investigation was made by letter dated April 25, 2011 and the request was reiterated in the Committee's July 18, 2011 letter.

The Committee appreciates DOI's statement in its August 1st letter that DOI recognizes this Committee's legitimate and important oversight responsibilities and pledge to work with the Committee to provide materials responsive to the Committee's needs. It is important that this recognition and pledge result in actual compliance. The Committee has reservations based on DOI's actions to date and failure to produce any responsive documents to the Committee's April 25th letter until August, months after the May 13th deadline imposed by the Committee. To avoid any confusion, your August 1st letter reference to a production of approximately 10,500 pages of documents by DOI concerns a separate document request the Committee has made to DOI regarding OSM's revision of the 2008 Stream Buffer Zone Rule. The Committee notes that the disc that was produced to the Committee on August 1, 2011 relating to the Moratorium contains only an unredacted version of the OIG's report, a report that the OIG provided the Committee in May. The disc does <u>not</u> contain the eleven attachments that your letter states were also being produced to the Committee.

In the August 1st letter, DOI noted that there have been conversations with Committee staff seeking clarity regarding request item (e) as set forth in the Committee's April 25th letter. On May 19, 2011, the first telephone conference call was held between DOI and Committee staff regarding the Committee's April 25th letter. During this call, DOI sought clarification about request item (e) and that Committee staff provided clarification via email that same day, noting that "in item 'e,' we are referring to the 6-month moratorium on deepwater drilling in the Gulf of Mexico that was imposed and immediately followed the May 27, 2010 Report entitled 'Increased Safety Measures for Energy Development on the Outer Continental Shelf.' This safety report was the subject of the Inspector General's Report of Investigation – Federal Moratorium on Deepwater Drilling Case No. PI-PI-10-0562-I." Despite that prompt clarification, no documents or information was forthcoming from DOI nor were there any further requests for clarity until after the Committee's letter of July 18th. These requests for further clarity came on the July 29th telephone call and DOI's letter of August 1st. While the Committee encourages DOI to seek clarification when necessary, it is disappointing for DOI to seek clarification of requests only after the original document production deadline has passed and the Committee has been forced to send a follow up letter. It creates the impression that DOI is not truly seeking clarification, but is engaged in unwarranted delay. If DOI has specific requests for clarification and explanation, they should be stated promptly. In reviewing each item request made by the Committee, they are stated plainly and clearly. The fact that an item request may require the production of a large number of documents or documents that DOI prefers not to produce does not make the request unclear.

Also during the July 29th conference call between DOI and Committee staff, Committee staff was invited to review the OIG Investigative Activity Report (IAR) and an index of withheld attachments to the IG Report. The IAR and the documents listed on the index had been previously withheld as privileged materials by DOI's Acting Inspector General based on instructions received from DOI's Office of the Solicitor. The Committee staff's review occurred on August 2, 2011. The Committee believes that this was a positive step taken by DOI to comply with the Committee's requests.

The Committee, however, disagrees with the assertion contained in your August 1st letter that after the review of the IAR, Committee staff had "committed that if the Committee ha[d] further information needs after reviewing the IAR and the index, the Committee would work with the Department to narrowly focus the Committee's request in a manner that respects Executive Branch confidentiality interests and the Department's limited resources." As indicated in an email sent to DOI staff prior to the review and consistent with July 29th conversation held between Committee staff and DOI, the Committee fully reserved the right to continue to seek a more complete response to the document request contained in the Committee's April 25th letter and referenced in the Committee's July 18th letter. The email also noted that although the Committee was aware of the DOI's concerns about Executive Branch confidentiality interests, the Committee had not agreed to limit its original request nor was this limited review a substitute for complete compliance.

Cognizant of DOI's concerns, the Committee has previously provided DOI instructions in the April 25th letter on how to produce responsive documents that may contain information that implicate DOI's confidentiality concerns. If compliance with the document request cannot be

made in full, compliance shall be made to the extent possible and shall include an explanation why full compliance is not possible. *See* Instructions, ¶7. Further, in the event that a document is withheld, in whole or in part, based on a claim of privilege, provide the following information concerning any such document: (a) the privilege asserted; (b) the type of document; (c) the general subject matter of the document; (d) the date, author and recipient; and (e) the relationship of the author and recipient to each other. Claims of privileges are considered under Committee on Natural Resources Rule 4(h) and, similar to all common-law privileges, are ultimately up to the discretion of the Committee. *See* Instructions, ¶8. This request is continuing in nature and applies to any newly discovered information. *See* Instructions, ¶11. Any record, document, compilation of data or information, not produced because it has not been located or discovered by the deadline set out in the original request, shall be produced immediately upon location or discovery subsequent thereto. *Id.*

Following the review of the IAR and index on August 2nd, Committee staff did provide some guidance to DOI staff about some specific items to help DOI focus its search for responsive documents and information. Committee staff also made it abundantly clear that this guidance did not limit the requests outlined in the April 25th letter nor was production of this focused information considered DOI's complete response to the Committee's requests. Specifically, DOI was requested to provide further details to the index Committee staff reviewed, such as who received carbon copies of the Attachment 13 and Attachment 15; identify who was involved in the editing of the drafts exchanged between DOI and the White House on May 26, 2011 and May 27, 2011; the surname of the Draft 30-Day Report (all versions); and any and all emails exchanged between DOI and the engineers after the Report "Increased Safety Measures for Energy Development on the Outer Continental Shelf" was made public. The Committee asks that this information be received by the Committee no later than August 29, 2011 and include the eleven attachments that DOI failed to include on the disc produced to the Committee on August 1st.

We look forward to DOI producing additional documents and fulfilling its obligation to respond to Committee's requests.

Sincerely,

Doc Hastings
Chairman
Natural Resources Committee

Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

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JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

April 25, 2011

The Honorable Ken Salazar
Secretary
U.S. Department of the Interior
1951 Constitution Avenue, NW
Washington, DC 20240

Dear Secretary Salazar:

On July 20, 1010, we requested the Office of Inspector General to conduct an investigation into whether senior officials of the U.S. Department of the Interior (DOI), in an effort to help justify their decision to impose a 6-month moratorium on deepwater drilling in the Gulf of Mexico, misrepresented that the moratorium was reviewed and supported by a group of scientists and industry experts. In a brief 8-page report, issued on November 8, 2010, the Office of Inspector General (OIG) concluded that although the White House edited the original DOI draft Executive Summary leading to the "implication" that the moratorium recommendation had been peer reviewed by experts, the OIG's report nonetheless stated that it was not the intention of DOI officials to create that "implication." Surprisingly, the OIG's report neither attaches nor provides detailed excerpts of draft documents or communications that would allow this Committee and the public to reach an independent conclusion based on the documents versus credibility determinations - of DOI officials interviewed - that were made by the OIG.

Because the OIG's report inadequately discusses the actual documents, drafts and communications surrounding this important issue and lacks transparency overall, the Committee requests the underlying documents, drafts and communications reviewed by the OIG in reaching its conclusion and issuing its Report of Investigation – Federal Moratorium on Deepwater Drilling Case No. PI-PI-10-0562-I. Accordingly, we request the following items:

A. <u>Documents and Items to be Produced</u>

Any and all documents, referring, relating, or pertaining, directly or indirectly, to:

a. The Executive Summary or any portion of the draft report, which was subsequently published by DOI as "Increased Safety Measures for Energy Development on the Outer Continental Shelf" on May 27, 2010;

http://naturalresources.house.gov

b. Drafts, revisions, excerpts, inserts, deletions, or other alterations or modifications of the Executive Summary or any portion of the draft report "Increased Safety Measures for Energy Development on the Outer Continental Shelf;"

c. Witnesses or individuals interviewed or sought to be interviewed, whether formally or informally, in connection with the OIG Report of Investigation – Federal Moratorium on Deepwater Drilling, including but not limited to interview transcripts, notes, summaries, letters, or other communications;

d. Individuals or entities including their titles and telephone and mailing contact information receiving any version, in whole or in part, of the draft report pertaining to the Increased Safety Measures for Energy Development on the Outer Continental Shelf and the dates on which draft reports were received; and

e. A moratorium on drilling including but not limited to communications.

B. <u>Definitions</u>

1. The term "document" means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, recorded notes, letters, notices, confirmations, receipts, checks, envelopes, presentations, pamphlets, brochures, interoffice and intra office communications, electronic mails (e-mails), notations of any type of conversation, telephone call, voice mail, phone mail, meeting or other communication, diaries, analyses, summaries, messages, correspondence, circulars, opinions, work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto), and electronic, mechanical, and electric records or representations of any kind, and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape, or otherwise.

2. The term "communication" means each manner or means of disclosure or exchange of information, regardless of means utilized, whether oral, electronic, by document or otherwise, and whether face-to-face, in a meeting, by telephone, mail, e-mail, discussions, releases, personal delivery, or otherwise.

3. The terms "and" and "or" shall be construed broadly and either conjunctively or disjunctively to bring within the scope of this document request. The singular includes the plural. The masculine includes the feminine.

4. The term "draft report" means any version, adaption, portion, version, change, variation, or iteration of the report pertaining to the moratorium (also known as the 30-day report) or safety measures for energy development on the outer continental shelf including but

not limited to any proposed, contemplated, recommended, or distributed outlines, inserts, deletions, modifications, alterations, attachments, appendices, visual aids, summaries, or synopses.

5. As used herein, "referring" or "relating" means and includes "constituting," "pertaining," "evidencing," "reflecting," "describing," or "having anything to do with," and in each instance, directly or indirectly. These terms mean, without limitation, any reference or relationship which either (a) provides information with respect to the subject of the inquiry, or (b) might lead to individuals who, or documents which, might possess or contain information with respect to the subject of the inquiry.

C. Instructions

1. In complying with this document request, you are required to produce all responsive documents, materials, or items that are in your possession, custody, or control, whether held by you or your past or present agents, employees, representatives, subsidiaries, affiliates, divisions, partnerships, and departments acting on your behalf. You are also required to produce documents that you have a legal right to obtain, that you have a right to copy or to which you have access, as well as documents that you have placed in the temporary possession, custody, or control of any third party. No records, documents, date or information called for by this request shall be destroyed, modified, removed, transferred or otherwise made inaccessible to the Committee.

2. In the event that any entity, organization or individual denoted in this document request has been, or is also known by any other name than that herein denoted, the document request shall be read also to include them under that alternative identification.

3. Each document produced shall be produced in a form that renders that document capable of being printed or copied.

4. Documents produced in response to this document request shall be produced together with copies of file labels, dividers, envelopes, or identifying markers with which they were associated when this document request was served. Documents produced to this document request shall also identify to which paragraph from the document request such documents are responsive. Moreover, please include with your response, an index identifying each record and label (preferably by bates stamping) the documents. The Committee prefers, if possible, to receive all documents in electronic format.

5. It shall not be a basis for refusal to produce documents that any other person or entity also possesses documents that are non-identical or identical copies of the same document.

6. If any of the document requested information is available in machine-readable or electronic form (such as on a computer server, hard drive, CD, DVD, memory stick, or computer back-up tape), state the form in which it is available and provide sufficient detail to allow the information to be copied to a readable format. If the information

requested is stored in a computer, indicate whether you have an existing program that will print the records in a readable form.

7. If compliance with the document request cannot be made in full, compliance shall be made to the extent possible and shall include an explanation of why full compliance is not possible.

8. In the event that a document is withheld, in whole or in part, based on a claim of privilege, provide the following information concerning any such document: (a) the privilege asserted; (b) the type of document; (c) the general subject matter of the document; (d) the date, author and recipient; and (e) the relationship of the author and recipient to each other. Claims of privileges are considered under Committee on Natural Resources Rule 4(h) and, similar to all common-law privileges, are ultimately up to the discretion of each Committee.

9. If any document responsive to this document request was, but no longer is, in your possession, custody, or control, identify the document (stating its date, author, subject and recipient) and explain the circumstances by which the document ceased to be in your possession, custody, or control.

10. If a date or other descriptive detail set forth in this document request referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the request, you should produce all documents which would be responsive as if the date or other descriptive detail were correct.

11. This request is continuing in nature and applies to any newly-discovered information. Any record, document, compilation of data or information, not produced because it has not been located or discovered by the return date, shall be produced immediately upon location or discovery subsequent thereto.

12. Send all responsive documents and records to:

    Morgan Kim or Tim Charters
    Committee on Natural Resources
    U.S. House of Representatives
    1324 Longworth House Office Building
    Washington, DC 20515

We expect a complete written response to be provided to the Committee no later than May 13, 2011.

If you perceive a problem providing the information in that timeframe, or have any questions about this request, please feel free to contact Morgan Kim or Tim Charters of the Committee staff.

If you perceive a problem providing the information in that timeframe, or have any questions about this request, please feel free to contact Morgan Kim or Tim Charters of the Committee staff.

Thank you in advance for your cooperation with the Committee in its review of this matter. Your continued attention to this important matter is appreciated.

Sincerely,

Doc Hastings
Chairman
Natural Resources Committee

Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

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DOC HASTINGS, WA
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JEFFREY DUNCAN
DEMOCRATIC STAFF DIRECTOR

July 18, 2011

The Honorable Ken Salazar
Secretary
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240-0001

Dear Mr. Secretary:

On April 25, 2011, we sent you a letter that requested documents, drafts and communications related to the Report of Investigation – Federal Moratorium on Deepwater Drilling Case No. PI-PI-10-0562- issued by the Office of Inspector General. Specifically, we requested the following items:

Any and all documents, referring, relating, or pertaining, directly or indirectly, to:

a. The Executive Summary or any portion of the draft report, which was subsequently published by DOI as "Increased Safety Measures for Energy Development on the Outer Continental Shelf" on May 27, 2010;

b. Drafts, revisions, excerpts, inserts, deletions, or other alterations or modifications of the Executive Summary or any portion of the draft report "Increased Safety Measures for Energy Development on the Outer Continental Shelf;"

c. Witnesses or individuals interviewed or sought to be interviewed, whether formally or informally, in connection with the OIG Report of Investigation – Federal Moratorium on Deepwater Drilling, including but not limited to interview transcripts, notes, summaries, letters, or other communications;

d. Individuals or entities including their titles and telephone and mailing contact information receiving any version, in whole or in part, of the draft report pertaining to the Increased Safety Measures for Energy Development on the Outer Continental Shelf and the dates on which draft reports were received; and

e. A moratorium on drilling including but not limited to communications.

We requested that a complete written response be provided to the Committee no later than May 13, 2011. Two months have passed since this deadline, and we still have not received any written response to this letter from DOI. This is simply unacceptable.

Under the Rules of the House of Representatives, the Committee has general and continuing oversight and investigative authority over the subject matter of the activities, policies, and programs of DOI. DOI has the responsibility and obligation to be responsive to requests for information from this Committee so it can fulfill its Constitutional oversight duties. Given DOI's failure to meet the previous deadline, we request that a complete written response be provided to the Committee no later than August 1, 2011.

Your response should be consistent with the Instructions outlined in the April 25th letter to DOI. If compliance with the document request cannot be made in full, compliance shall be made to the extent possible and shall include an explanation why full compliance is not possible. *See* Instructions, ¶7. Further, in the event that a document is withheld, in whole or in part, based on a claim of privilege, provide the following information concerning any such document: (a) the privilege asserted; (b) the type of document; (c) the general subject matter of the document; (d) the date, author and recipient; and (e) the relationship of the author and recipient to each other. Claims of privileges are considered under Committee on Natural Resources Rule 4(h) and, similar to all common-law privileges, are ultimately up to the discretion of the Committee. *See* Instructions, ¶8. This request is continuing in nature and applies to any newly discovered information. *See* Instructions, ¶11. Any record, document, compilation of data or information, not produced because it has not been located or discovered by the deadline set out in the original request, shall be produced immediately upon location or discovery subsequent thereto. *Id.* Please be advised, under the Rules of the House of Representatives, the Committee can compel the production of documents.

If you have any questions about this matter or to make arrangements for production, please do not hesitate to contact Traci Rodriguez, Senior Counsel, Office of Oversight and Investigations, or Tim Charters, Staff Director of the Subcommittee on Energy and Mineral Resources. We look forward to your timely response.

Sincerely,

Doc Hastings
Chairman
Natural Resources Committee

Doug Lamborn
Subcommittee Chairman
Energy and Mineral Resources

THE DEPUTY SECRETARY OF THE INTERIOR
WASHINGTON

JUN 03 2010

Dr. Benton F. Baugh
President, Radoil Inc.
12251 FM 529
Houston, Texas 77041

Dear Dr. Baugh:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department of the Interior is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

As stated in the Report, each of the 22 numbered recommendations was developed after consulting with a wide range of experts in state and Federal governments, academic institutions, and industry and advocacy organizations. Given the technical nature of the Report and its recommendations, the Department asked Dr. Peter Blair of the National Academy of Engineering to identify a group of recognized academic and industry experts in the relevant fields to provide certain information to the Department related to offshore drilling safety and blowout protection equipment and to review and comment on the proposed safety recommendations to be included in the Report. We are indebted to each of you for agreeing to serve in that role and for your stated concurrence with the detailed safety recommendations contained in the Report.

Based on the Report's recommendations and the devastating consequences of the ongoing oil spill, the Administration independently concluded that a 6-month moratorium on new deepwater offshore drilling was necessary to implement the safety recommendations included in the Report and to learn from the information and recommendations developed by the Presidential Commission and other ongoing investigations into the Deepwater Horizon incident and resulting BP oil spill.

By listing you as a member of the NAE panel that peer-reviewed the 22 safety recommendations contained in the Report, we did not mean to imply that you also agreed with the decision to impose a moratorium on all new deepwater drilling. We acknowledge that you were not asked to review or comment on the proposed moratorium. The recommendation and decision were based on the Report's safety recommendations, in particular the need for new blowout preventer and other safety equipment on subsea BOP stacks used on floating drilling rigs and the need for better wild-well intervention techniques in the event of future emergencies like the BP oil spill, particularly in deepwater. We regret any misunderstanding or confusion related to the inclusion

of the recommendation to impose a 6-month moratorium on all new deepwater wells in the executive summary of the final report.

Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to share your expertise and time were invaluable to our development of the Report's specific safety recommendations and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

David J. Hayes

cc: Mr. Steve Black, Counselor to the Secretary of the Interior

THE DEPUTY SECRETARY OF THE INTERIOR
WASHINGTON

JUN 03 2010

Dr. Robert G. Bea
Professor of Civil and Environmental Engineering
Department of Civil Engineering
University of California, Berkeley
212 McLaughlin Hall
Berkeley, California 94720-1712

Dear Dr. Bea:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department of the Interior is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

David J. Hayes

cc: Mr. Steve Black, Counselor to the Secretary of the Interior

THE DEPUTY SECRETARY OF THE INTERIOR
WASHINGTON

JUN 0 8 2010

Mr. J. Ford Brett
Managing Director
Petroskills, Inc.
2511 Terwilleger Boulevard
Tulsa, Oklahoma 74114

Dear Mr. Brett:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department of the Interior is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

David J. Hayes

cc: Mr. Steve Black, Counselor to the Secretary of the Interior

THE DEPUTY SECRETARY OF THE INTERIOR
WASHINGTON

JUN 03 2010

Dr. Martin E. Chenevert
Senior Lecturer, Department of Petroleum
and Geosystems Engineering
Manager, Drilling Research Program
The University of Texas at Austin
Department of Petroleum and Geosystems
Engineering, CPE 2.502
Austin, Texas 78712

Dear Dr. Chenevert:

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Sincerely,

David J. Hayes

cc: Mr. Steve Black, Counselor to the Secretary of the Interior

THE DEPUTY SECRETARY OF THE INTERIOR
WASHINGTON

JUN 03 2010

Dr. Hans C. Juvkam-Wold, P.E.
Professor Emeritus
Dwight Look College of Engineering
Harold Vance Department of Petroleum Engineering
Texas A&M University
3116 TAMU - 507 Richardson Building
College Station, Texas 77843-3116

Dear Dr. Juvkam-Wold:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department of the Interior is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

David J. Hayes

cc: Mr. Steve Black, Counselor to the Secretary of the Interior

THE DEPUTY SECRETARY OF THE INTERIOR
WASHINGTON

JUN 03 2010

Dr. Per Holland
SINTEF Industrial Management
Safety and Reliability
N-7465 Trondheim
Norway

Dear Dr. Holland:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department of the Interior is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

David J. Hayes

cc: Mr. Steve Black, Counselor to the Secretary of the Interior

THE DEPUTY SECRETARY OF THE INTERIOR
WASHINGTON

JUN 03 2010

Dr. Arnold F. Stancell
Former Vice President, Mobil Oil
Turner Professor of Chemical Engineering, Emeritus,
Georgia Institute of Technology
15 Woodside Drive
Greenwich, Connecticut 06830

Dear Dr. Stancell:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department of the Interior is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

David J. Hayes

cc: Mr. Steve Black, Counselor to the Secretary of the Interior

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Thursday, May 27, 2010 2:30 PM
To: Kemkar, Neal; Black, Steve
Cc: Bud Danenberger; Ford Brett
Subject: RE: Draft Interim Measures Report for Immediate Review

Neal and Steve

I note that the transmittal letter calls for a total suspension of drilling activities for 6 months from floating rigs. [redacted]
(b) (5)
[redacted]

[redacted]

[redacted]

[redacted]

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 9:44 AM
To: Ken Arnold
Cc: Black, Steve
Subject: Draft Interim Measures Report for Immediate Review

Ken - please review the attached draft of the safety report and let us know, by later today, about any big picture thoughts or comments you have. The Secretary and White House are reviewing this draft. I will call you momentarily to discuss.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Thursday, May 27, 2010 2:37 PM
To: Kemkar, Neal; Black, Steve
Subject: RE: Draft Interim Measures Report for Immediate Review

Neal and Steve

(b) (5) [redacted].

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Thursday, May 27, 2010 1:30 PM
To: 'Kemkar, Neal'; 'Black, Steve'
Cc: Bud Danenberger (b) (6) [redacted]); Ford Brett (fbrett@petroskills.com)
Subject: RE: Draft Interim Measures Report for Immediate Review

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Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Friday, May 28, 2010 2:13 PM
To: Black, Steve
Subject: Attached is a Current Draft of a [redacted] (b) (5)
Attachments: [redacted] (b) (5) .docx

Steve

I am waiting to hear from you before submitting this to the NYT. They have expressed an interest in publishing it. So far we have too many authors willing to sign and will have o limit it to four.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

(b) (5)

(b) (5)

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Saturday, May 29, 2010 9:04 AM
To: Black, Steve
Cc: Ford Brett; Tom Williams; Skip Ward
Subject: (b) (5) [redacted]d from Contributors to Secretary Salazar's 30 Day Report to The President
Attachments: (b) (5) [redacted].docx

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
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Steve

I thought I would check with you one more time before submitting this to the NYT. (b) (5) [redacted]

(b) (5) [redacted].

Ken

David

On May 28, Secretary Salazar submitted to The President a report entitled, "**Increased Safety Measures for Energy Development on the Outer Continental Shelf".** The report states, "The recommendations contained in this report have been peer-reviewed by seven experts identified by the National Academy of Engineering. Those experts, who volunteered their time and expertise, are identified in Appendix 1. The Department also consulted with a wide range of experts from government, academia and industry."

(b) (5) [redacted].

In the past month I have been helping several NYT reporters understand the technical aspects of various stories on the BP blowout. Eric Lipton suggested I send this to you.

From: Lipton, Eric [mailto:lipton@nytimes.com]
Sent: Friday, May 28, 2010 10:49 PM
To: 'karnold@karnoldconsulting.com'
Subject: Re: Now I need your help

Hi ken

When u have a final draft please send it to our op/ed editor.

Shipley, David
Shipley@nytimes.com

From: Ken Arnold <karnold@karnoldconsulting.com>
To: Lipton, Eric
Sent: Fri May 28 18:18:46 2010
Subject: Now I need your help
Eric

I am one of the individuals who was consulted and referenced in the DOI 30 day interim report on the BP spill. Five of us are very concerned about the moratorium which was not in the report we reviewed. We have written an Op Ed. I need help in figuring out how to get it published in either the NYT, WSJ or Washington Post. The attached is a draft, given to you in confidence.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Lipton, Eric [mailto:lipton@nytimes.com]
Sent: Friday, April 30, 2010 12:49 PM
To: 'karnold@karnoldconsulting.com'
Subject: Trying to reach you...

Hello Mr. Arnold

I was trying to reach you to ask a few questions to understand some items related to oil platforms and you were recommended as an expert I should call.

Can you ring me please

Eric

202 862 0448

Eric Lipton
The New York Times
Washington Bureau
202 862 0448 work
202 370 7951 cell
240 352 4615 fax
lipton@nytimes.com

(b) (5)

(b) (5)

[redacted]

[redacted]

Kenneth E. Arnold, NAE, Chair of the NRC Committee to Review the MMS Offshore Inspection Program

Ford Brett, Managing Director, Petroskills

E.G. (Skip) Ward, Associate Director, Offshore Technology Research Center, Texas A&M University

Thomas E. Williams, The Environmentally Friendly Drilling Project

Nguyen, Ngoc B

From: Black, Steve
Sent: Saturday, May 29, 2010 3:52 PM
To: 'karnold@karnoldconsulting.com'
Cc: 'fbrett@petroskills.com'; 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'
Subject: Re: (b) (5) [redacted] from Contributors to Secretary Salazar's 30 Day Report to The President

Thanks Ken. The Secretary is traveling this weekend, but I'd be happy to talk further. I appreciate your courtesies.

And to each of you, thanks again for your helpful work on the 30-day safety report.
Steve

From: Ken Arnold <karnold@karnoldconsulting.com>
To: Black, Steve
Cc: Ford Brett <fbrett@petroskills.com>; Tom Williams <Tom.Williams@Nautilus-Int.com>; Skip Ward <egward@tamu.edu>
Sent: Sat May 29 09:03:30 2010
Subject: (b) (5) [redacted] from Contributors to Secretary Salazar's 30 Day Report to The President

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
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Houston, TX 77043
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Shipley, David
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Eric

202 862 0448

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The New York Times
Washington Bureau
202 862 0448 work
202 370 7951 cell
240 352 4615 fax
lipton@nytimes.com

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Saturday, May 29, 2010 6:25 PM
To: Black, Steve
Cc: fbrett@petroskills.com; Tom.Williams@Nautilus-Int.com; egward@tamu.edu; Hans Juvkam-Wold
Subject: RE: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President
Attachments: (b) (5) [redacted] Rev 1.docx

Steve

There has been a change in plans. The current thought is to send the attached to Senator Landry and Senator Hutchinson. We have connections at both. Please note we turned down the tone.

We are also in the process of gathering more signatures.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
(b) (6)
www.karnoldconsulting.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Saturday, May 29, 2010 2:52 PM
To: 'karnold@karnoldconsulting.com'
Cc: 'fbrett@petroskills.com'; 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'
Subject: Re: P(b) (5) [redacted] from Contributors to Secretary Salazar's 30 Day Report to The President

Thanks Ken. The Secretary is traveling this weekend, but I'd be happy to talk further. I appreciate your courtesies.

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Steve

(b) (5)

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Kenneth E. Arnold, NAE, Chair of the NRC Committee to Review the MMS Offshore Inspection Program

Ford Brett, Managing Director, Petroskills

Hans Juvkam-Wold, Professor Emeritus, Petroleum Engineering, Texas A&M University

E.G. (Skip) Ward, Associate Director, Offshore Technology Research Center, Texas A&M University

Thomas E. Williams, The Environmentally Friendly Drilling Project

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Saturday, May 29, 2010 9:44 PM
To: Ken Arnold
Cc: Black, Steve; Tom.Williams@Nautilus-Int.com; egward@tamu.edu; Hans Juvkam-Wold
Subject: Re: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ken et al

I just read on bloomberg that Rigs in less than 500 ft of h2o are exempt. True?

(b) (5) [redacted]?

Ford Brett

(m) +1 918 408 9516

On May 29, 2010, at 5:25 PM, "Ken Arnold" <karnold@karnoldconsulting.com> wrote:

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<(b) (5) Rev 1.docx>

Nguyen, Ngoc B

From: Black, Steve
Sent: Sunday, May 30, 2010 9:08 PM
To: 'FBrett@PetroSkills.com'; 'karnold@karnoldconsulting.com'
Cc: 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'; 'juvkam-wold@pe.tamu.edu'
Subject: Re: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ford, we just put out a press release with an NTL clarifying the scope of the moratorium. Shallow water wells and certain development wells in deep water are allowed.

Have a good Memorial Day!

Steve

From: Ford Brett <FBrett@PetroSkills.com>
To: Ken Arnold <karnold@karnoldconsulting.com>
Cc: Black, Steve; Tom.Williams@Nautilus-Int.com <Tom.Williams@Nautilus-Int.com>; egward@tamu.edu <egward@tamu.edu>; Hans Juvkam-Wold <juvkam-wold@pe.tamu.edu>
Sent: Sat May 29 21:43:55 2010
Subject: Re: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ken et al

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<(b) (5) [redacted] - Rev 1.docx>

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Sunday, May 30, 2010 10:21 PM
To: Black, Steve; karnold@karnoldconsulting.com
Cc: Tom.Williams@Nautilus-Int.com; egward@tamu.edu; juvkam-wold@pe.tamu.edu
Subject: RE: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Steve –

Thanks for the update – you don't need to be reading an email from me on a holiday. Hopefully, you won't see this until Tuesday. I'd like for you to know where I stand on this. (b) (5) [redacted].

(b) (5) [redacted]). [redacted]

[redacted]

[redacted]

[redacted]

[redacted]).

[redacted]). [redacted]

(b) (5)

(b) (5)

I hope you're spending time with your family and not reading this on Memorial Day, if you happen to read this – happy memorial day to you as well.

I would like some kind of reply. Thanks for your patience.

Ford Brett

PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

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<(b) (5) [redacted] Rev 1.docx>

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Tuesday, June 01, 2010 4:07 PM
To: Black, Steve
Subject: latest Version
Attachments: (b) (5) [redacted] Rev 1.docx

Steve

Please call. Tom Williams has some specific recommendations as to Congressional committees he wants to contact with the attached document. I am under pressure to do so by close of business today. As you can tell most of the reviewers have signed on and are concerned.

Ken

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(b) (5)

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Kenneth E. Arnold, NAE, Chair of the NRC Committee to Review the MMS Offshore Inspection Program

Dr. Robert Bea, Department of Civil and Environmental Engineering, Univeristy of California at Berkeley

Dr. Benton Baugh, President, Radoil, Inc.

Ford Brett, Managing Director, Petroskills

Dr. Martin Chenevert, Senior Lecturer and Director of Drilling Research Program, Department of Petroleum and Geophysical Engineering, University of Texas

Dr. Hans Juvkam-Wold, Professor Emeritus, Petroleum Engineering, Texas A&M University

Dr. E.G. (Skip) Ward, Associate Director, Offshore Technology Research Center, Texas A&M University

Thomas E. Williams, The Environmentally Friendly Drilling Project

Nguyen, Ngoc B

From: Black, Steve
Sent: Tuesday, June 01, 2010 5:48 PM
To: 'karnold@karnoldconsulting.com'
Subject: Re: latest Version

Hi Ken. I've been traveling today. Will review and call as soon as possible.

Steve

From: Ken Arnold <karnold@karnoldconsulting.com>
To: Black, Steve
Sent: Tue Jun 01 16:06:51 2010
Subject: latest Version

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Nguyen, Ngoc B

From: Black, Steve
Sent: Wednesday, June 02, 2010 6:41 PM
To: karnold@karnoldconsulting.com
Subject: Draft letter

Ken, as we discussed. Please give me any comments. Thanks for your assistance.

June 2, 2010

Mr. J. Ford Brett
Managing Director,
Petroskills, Inc.
3128 E. 66th Place
Tulsa, OK 74135

Dear Mr. Brett:
Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

As stated in the report, each of the 22 numbered recommendations contained in the report was developed after consulting with a wide range of experts in State and Federal Governments, academic institutions, and industry and advocacy organizations. Given the technical nature of the report and its recommendations, the Department asked Dr. Peter Blair of the National Academy of Engineering to identify a group of recognized academic and industry experts in the relevant fields to provide certain information to the Department related to offshore drilling safety and blowout protection equipment and to review and comment on the proposed safety recommendations to be included in the report. We are indebted to each of you for agreeing to serve in that role and for your stated concurrence with the detailed recommendations contained in the report.

Based on the recommendations contained in the report and the devastating consequences of the ongoing oil spill, the Administration independently concluded that a 6-month moratorium on new offshore drilling was necessary to implement the safety recommendations contained in the report and to learn from the information and recommendations developed by the Presidential Commission and other ongoing investigations into the Deepwater Horizon incident and resulting BP oil spill.

By listing you as members of the NAE panel that peer-reviewed the 22 safety recommendations contained in the report, we did not mean to imply that you also agreed with the decision to impose a moratorium on all new deepwater drilling. While that recommendation and decision were based on the safety recommendations contained in the report, in particular the need for new blowout preventer and other safety equipment on subsea BOP stacks used on floating drilling rigs, and the need for better wild-well intervention techniques in the event of future emergencies like the BP oil spill, particularly in deepwater, we acknowledge that you were not asked to review or comment on the scope of the proposed moratorium. We regret any misunderstanding or confusion related to the inclusion of the recommendation to impose a 6-month moratorium on all new deepwater wells in the executive summary of the final report.

Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

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Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Wednesday, June 02, 2010 6:58 PM
To: Black, Steve
Subject: FW: Our Document is public
Attachments: asme note on the BP oil spill.pdf

Attached for your info is the Tom Williams letter to ASME which I got from a retired Sell list server. Below is the response from NAE to a letter we sent for your info if you care to see it and my take away...fair or otherwise.

Kenneth E. (Ken) Arnold
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Home: 713-939-1034
www.karnoldconsulting.com

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, June 02, 2010 3:38 PM
To: 'Godwin, Stephen'; 'Blair, Peter'; 'BSkinner@nas.edu'
Cc: 'Ford Brett'; Hans Juvkam-Wold (juvkam-wold@pe.tamu.edu); 'Bob Bea'; Skip Ward (egward@tamu.edu); 'mechenevert@austin.utexas.edu'; 'Tom Williams'; 'bbaugh@radoil.com'
Subject: Our Document is public

I just got a copy of an ASME of a letter written yesterday by Tom Williams which contains the basics of our document.

Kenneth E. (Ken) Arnold
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From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, June 02, 2010 3:22 PM
To: 'Godwin, Stephen'; 'Blair, Peter'; 'BSkinner@nas.edu'
Cc: 'Ford Brett'; Hans Juvkam-Wold (juvkam-wold@pe.tamu.edu); 'Bob Bea'; Skip Ward (egward@tamu.edu); 'mechenevert@austin.utexas.edu'; 'Tom Williams'; 'bbaugh@radoil.com'
Subject: RE: Concerns about DOI report

Ford, Hans, Bob, Skip, Martin, Tom, Benton

This is the response we got from Chuck Vest, President of NAE, about our concerns that the 30 Day report says it was peer reviewed by a group of us, and yet the final version of the report had a major recommendation we never got to see, or comment on. I take from this

1. NAE has a different view of the peer review process than the one I had. That is the conclusions of a report can be altered after the peer review process without the knowledge of the reviewers, yet the reviewer's names can still be used to justify the validity of the conclusion.

2. Chuck Vest dismissed our concerns out of hand without taking the time to really understand what we were saying and perhaps without really reading the document.

3. It would be inconvenient to NAE to address our concerns and easier to just give us a condescending lecture. I had such an experience once before with Dr. Vest but had thought that was a special circumstance and did not accurately reflect his character.

I assume there was a little of all three involved in the response.

I for one am disappointed with NAE's response, but that is perhaps because I had a higher regard for what "peer reviewed" means than is warranted. I have not heard from Steve Black at DOI but he usually calls me late in the evening.

I would appreciate your thoughts on where we go from here.

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From: Godwin, Stephen [mailto:SGODWIN@nas.edu]
Sent: Wednesday, June 02, 2010 10:49 AM
To: 'Ken Arnold'
Subject: FW: Concerns about DOI report

Ken,
Chuck's comments are below.
Steve

From: Vest, Charles M.
Sent: Wednesday, June 02, 2010 11:15 AM
To: Blair, Peter
Cc: Skinner, Bob; Godwin, Stephen
Subject: Re: Ken Arnold et al concerns about DOI report

Peter, Bob, and Steve,

Here are my views on this matter:

1. We (NAE) would not censor anyone's views, and in the end it is the authors' decision.

2. Having said this, I do not think it is a good idea to publish an op-ed. My concern remains, but is slightly attenuated, if it is a private communication with those in Interior that they dealt with. My view is that as a matter of national service, some or all of the authors were asked by the White House/Department of the Interior

to review materials associated with the 30-day report. I do not know the details of how this task was presented to them. They were informally recommended by the NAE/NRC because of their technical experience and expertise. My view, and I think it the common understanding, is that when asked to serve such a function at this level, you do your best to answer the questions asked of you and end it at that point. One has to realize that many factors must go into making such a major policy decision, and they are very likely to range well beyond the scope of what is typically asked of technical experts, and cannot always be expected to follow a completely technical logic.

3. What troubles me a lot in this instance is that it will be read as if the authors took advantage of the service they had been asked to give to imply extra gravitas to their broader views, in this case regarding the moratorium. In my view, this is not good for them, and will also reflect negatively on the Academies, even though they would be acting as individuals. This would not be helpful as we prepare to undertake the detailed analysis that DOI has requested.

4. Although this is only a rough analogy, in the early 90s I chaired a committee of extraordinary individuals appointed by the President to drive and review a major redesign of the the space station. We worked really hard to answer questions leading to making it a truly international endeavor, cut its cost, reorganize the NASA operations, and move more of it to the private sector. But the one question we never discussed was whether as individuals we thought the station was the right investment for the nation. In retrospect, I think this was the right way to go, and I have been thinking of this analogy since this issue of the op-ed was raised.

5. I appreciate the fact that Ken Arnold and his colleagues have asked about my views. You certainly may share them as you deem fit.

6. Finally, I want to be clear that my views here are not about the moratorium and its wisdom. Although I don't know the whole calculus involved, I have some empathy for their view and understand their disappointment at being surprised by DOI's policy recommendation. Nonetheless, I don't think they or we will be well-served by publishing or delivering this.

--Chuck

From: Skinner, Bob
Sent: Wednesday, June 02, 2010 9:54 AM
To: Vest, Charles M.; Blair, Peter
Cc: Godwin, Stephen
Subject: Ken Arnold et al concerns about DOI report

Chuck/Peter, I am forwarding the email that Steve Godwin received from Arnold last night, along with the latest version of the letter. As you will see from the email, the group is still uncertain about where to send the letter. Ken is most anxious that Chuck be made aware of their concerns and would like some sort of "appropriate response" from the NRC/NAE. Please give me or Steve a call if you would like to discuss. Bob

Robert E. Skinner, Jr.
Executive Director
Transportation Research Board

Ph: 202-334-2936
http://trb.org

From: Godwin, Stephen
Sent: Wednesday, June 02, 2010 9:26 AM
To: Skinner, Bob
Subject: FW: latest Version

Bob,
As we discussed.
Steve

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Tuesday, June 01, 2010 8:43 PM
To: Godwin, Stephen
Subject: latest Version

Attached is latest version with the final (?) list of people endorsing. We have had no one say no, but several have not responded in writing or have said they thought their endorsement would appear self serving because of their backgrounds.

I have talked to Steve Black this evening and he is going to take the document through the DOI and let me know tomorrow if we can influence a way forward in getting an apology for the way things evolved and a redefinition of the moratorium to make it technically more consistent and alleviate some of the unnecessary economic damage.

Are you able to surface it through NRC and NAE on our behalf and make sure that Chuck Vest is aware of our concerns and brings it up to the DOI and White House in the appropriate manner.

Our plan failing an appropriate response from DOI and NAE is to submit it to some of the Congressional Committees, but we really don't want to do this. Some think it should be sent to the House Energy and Economics Committee and the House Select Committee on Energy Independence and Global Warming. One of the signers has connections to staff members on both these committees.

We won't do anything until we hear back from Steve Black tomorrow, but it would be helpful as well if you have the chance to bring this up with Chuck Vest.

Ken

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June 1, 2010

To: ASME EnComm Members:

Addressing the BP Horizon spill:

The National Academy of Engineering recommended a list of contributors and reviewers of the recent Department of Interior "30 Day Review" of the BP Oil Spill. I was involved in the review and was interviewed by officials from the White House and Department of Interior. The list of people interviewed and on the review panel have extensive petroleum industry expertise, and independent perspectives.

The report states: “The recommendations contained in this report have been peer-reviewed by seven experts identified by the National Academy of Engineering. Those experts, who volunteered their time and expertise, are identified in Appendix 1. The Department also consulted with a wide range of experts from government, academia and industry.”

The BP Macondo blow out was a tragedy for eleven families, and an environmental disaster of worldwide scale. We believe the blowout was caused by a complex and highly improbable chain of human errors coupled with several equipment failures and was preventable. The petroleum industry will learn from this; it can and will do better. We should not be satisfied until there are no deaths and no environmental impacts offshore - ever. However, we must understand that as with any human endeavor there will always be risks.

Some of the reviewers communicated after the report was released and while broadly agree with the detailed recommendations in the report; do not agree with the six month blanket moratorium on floating drilling. A moratorium was added after the final review and was never agreed to by the contributors.

The draft which we reviewed stated:

“Along with the specific recommendations outlined in the body of the report, Secretary Salazar recommends a 6-month moratorium on permits for new exploratory wells with a depth of 1,000 feet or greater. This will allow time for implementation of the measures outlined in this report, and the consideration of information and recommendations from the Presidential Commission as well as other investigations into the accident.

“In addition, Secretary Salazar recommends a temporary pause in all current drilling operations for a sufficient length of time to perform additional blowout preventer function and pressure testing and well barrier testing for the existing 33 permitted exploratory wells currently operating in deepwater in the Gulf of Mexico. These immediate testing requirements are described in Appendix 1.”

The people I have communicated with agree that the report and the history it describes agrees with this conclusion. Unfortunately after the review the conclusion was modified to read:

“The Secretary also recommends temporarily halting certain permitting and drilling activities. First, the Secretary recommends a six-month moratorium on permits for new wells being drilled

using floating rigs. The moratorium would allow for implementation of the measures proposed in this report and for consideration of the findings from ongoing investigations, including the bipartisan National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling.

"The Secretary further recommends an immediate halt to drilling operations on the 33 permitted wells, not including the relief wells currently being drilled by BP, that are currently being drilled using floating rigs in the Gulf of Mexico. Drilling operations should cease as soon as safely practicable for a 6-month period."

No one believed that a blanket moratorium is not the answer. It will not measurably reduce risk further and it will have a lasting impact on the nation's economy which may be greater than that of the oil spill.

The report highlights the safety record of the industry in drilling over 50,000 wells on the US Outer Continental Shelf of which more than 2000 were in over 1000 feet of water and 700 were in greater than 5000 feet of water. We have been using subsea blowout preventers since the mid- 1960s. The only other major pollution event from offshore drilling was 41 years ago. This was from a shallow water platform in Santa Barbara Channel drilled with a BOP on the surface of the platform.

The safety of offshore workers is much better than that of the average worker in the US, and the amount of oil spilled is significantly less than that of commercial shipping or petroleum tankers. The US offshore industry is vital to our energy needs. It provides 30% of our oil production, is the second largest source of revenue to the US Government ($6 Billion per year), and has a direct employment of 150,000 individuals. The report outlines several steps that can be taken immediately to further decrease risk as well as other steps that should be studied to determine if they can be implemented in a way that would decrease risk even more.

This tragedy had very specific causes. A blanket moratorium will have the indirect effect of harming thousands of workers and further impact state and local economies suffering from the spill. We would in effect be punishing a large swath of people who were and are acting responsibly and are providing a product the nation demands.

A blanket moratorium does not address the specific causes of this tragedy. It is in fact punishing the innocent and is the right thing to do.

These appear to me to be political decisions; one of the reviewers made the following comments I wholeheartedly agree:

- *A 6 month ban is the wrong thing for our nation to do.*
    - *Deepwater **exploration** is where the risks are highest (development is way safer). Once the pore pressure and productive formations are known, operations become much, much more reliable. A blanket ban is not warranted and will drive responsible operators away from the gulf*
- *The best rigs and the responsible drillers will get work and go elsewhere. They won't come back. We'll end up with 'junkier' rigs (they'll still meet 'regs' – but they'll be less capable). This will have the unintended consequence of increasing our future risks.*
- *Operators need to fully implement those recommendations per the report – not arbitrarily wait six months. An arbitrary six month delay on all floating drilling will penalize the*

responsible operators along with those who are not. How did six months come about? Why not five? Why not nine? We proposed that operators fulfill the requirements in our detailed recommendations and then proceed. Some operators might be able to do it faster than others. We need performance standards, not an arbitrary time in the 'penalty box'.

- *A second cause of this disaster was the inattention that people paid to the warning signs. No one will do that again for a long time to come.*

I could not have said this better myself. In the review process it was clear the people on the review team were young and inexperienced, did not understand the geology differences and the risk differences. They did not have a grasp of the technical nature involved in well planning and executions. I took good notes and sent them to the review team. There is plenty that can be done to make deepwater drilling safer. This is the time to do so.

I am on a team lead by RPSEA that has made sound recommendations to Congress to address the concerns of the public and regulators as we go forward. I have attached those recommendations and hope this ASME committee will support these as well as to encourage immediate exemptions for offshore development drilling during this 6 month moratorium.

This could turn out to the one of the largest energy policy mistake in our Country's history since Jimmy Carter administration thought we were running out of natural gas and created the Department of Energy.

Thomas E. Williams

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Wednesday, June 02, 2010 7:02 PM
To: Black, Steve
Subject: RE: Draft letter

I don't think anyone expected any more than this. However, I wish you could have said that one of the issues the President's Committee will address early on is to evaluate the extent of the moratorium. But perhaps that is too much to expect. At least this is better than the brush off we got from NAE which I sent by another email.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Wednesday, June 02, 2010 5:41 PM
To: karnold@karnoldconsulting.com
Subject: Draft letter

Ken, as we discussed. Please give me any comments. Thanks for your assistance.

June 2, 2010

Mr. J. Ford Brett
Managing Director,
Petroskills, Inc.
3128 E. 66th Place
Tulsa, OK 74135

Dear Mr. Brett:
Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

As stated in the report, each of the 22 numbered recommendations contained in the report was developed after consulting with a wide range of experts in State and Federal Governments, academic institutions, and industry and advocacy organizations. Given the technical nature of the report and its recommendations, the Department asked Dr. Peter Blair of the National Academy of Engineering to identify a group of recognized academic and industry experts in the relevant fields to provide certain information to the Department related to offshore drilling safety and blowout protection equipment and to review and comment on the proposed safety recommendations to be included in the report. We are indebted to each of you for agreeing to serve in that role and for your stated concurrence with the detailed recommendations contained in the report.

Based on the recommendations contained in the report and the devastating consequences of the ongoing oil spill, the Administration independently concluded that a 6-month moratorium on new offshore drilling was necessary to implement the safety recommendations contained in the report and to learn from the information and recommendations developed by the Presidential Commission and other ongoing investigations into the Deepwater Horizon incident and resulting BP oil spill.

By listing you as members of the NAE panel that peer-reviewed the 22 safety recommendations contained in the report, we did not mean to imply that you also agreed with the decision to impose a moratorium on all new deepwater drilling. While that recommendation and decision were based on the safety recommendations contained in the report, in particular the need for new blowout preventer and other safety equipment on subsea BOP stacks used on floating drilling rigs, and the need for better wild-well intervention techniques in the event of future emergencies like the BP oil spill, particularly in deepwater, we acknowledge that you were not asked to review or comment on the scope of the proposed moratorium. We regret any misunderstanding or confusion related to the inclusion of the recommendation to impose a 6-month moratorium on all new deepwater wells in the executive summary of the final report.

Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

Nguyen, Ngoc B

From: Black, Steve
Sent: Wednesday, June 02, 2010 7:11 PM
To: Ken Arnold
Subject: RE: Our Document is public

Thanks Ken. Safe travels!

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, June 02, 2010 6:58 PM
To: Black, Steve
Subject: FW: Our Document is public

Attached for your info is the Tom Williams letter to ASME which I got from a retired Sell list server. Below is the response from NAE to a letter we sent for your info if you care to see it and my take away…fair or otherwise.

Kenneth E. (Ken) Arnold
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Houston, TX 77043
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Home: 713-939-1034
www.karnoldconsulting.com

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, June 02, 2010 3:38 PM
To: 'Godwin, Stephen'; 'Blair, Peter'; 'BSkinner@nas.edu'
Cc: 'Ford Brett'; Hans Juvkam-Wold (juvkam-wold@pe.tamu.edu); 'Bob Bea'; Skip Ward (egward@tamu.edu); 'mechenevert@austin.utexas.edu'; 'Tom Williams'; 'bbaugh@radoil.com'
Subject: Our Document is public

I just got a copy of an ASME of a letter written yesterday by Tom Williams which contains the basics of our document.

Kenneth E. (Ken) Arnold
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Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, June 02, 2010 3:22 PM
To: 'Godwin, Stephen'; 'Blair, Peter'; 'BSkinner@nas.edu'
Cc: 'Ford Brett'; Hans Juvkam-Wold (juvkam-wold@pe.tamu.edu); 'Bob Bea'; Skip Ward (egward@tamu.edu); 'mechenevert@austin.utexas.edu'; 'Tom Williams'; 'bbaugh@radoil.com'
Subject: RE: Concerns about DOI report

Ford, Hans, Bob, Skip, Martin, Tom, Benton

This is the response we got from Chuck Vest, President of NAE, about our concerns that the 30 Day report says it was peer reviewed by a group of us, and yet the final version of the report had a major recommendation we never got to see, or comment on. I take from this

1. NAE has a different view of the peer review process than the one I had. That is the conclusions of a report can be altered after the peer review process without the knowledge of the reviewers, yet the reviewer's names can still be used to justify the validity of the conclusion.

2. Chuck Vest dismissed our concerns out of hand without taking the time to really understand what we were saying and perhaps without really reading the document.

3. It would be inconvenient to NAE to address our concerns and easier to just give us a condescending lecture. I had such an experience once before with Dr. Vest but had thought that was a special circumstance and did not accurately reflect his character.

I assume there was a little of all three involved in the response.

I for one am disappointed with NAE's response, but that is perhaps because I had a higher regard for what "peer reviewed" means than is warranted. I have not heard from Steve Black at DOI but he usually calls me late in the evening.

I would appreciate your thoughts on where we go from here.

Kenneth E. (Ken) Arnold
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From: Godwin, Stephen [mailto:SGODWIN@nas.edu]
Sent: Wednesday, June 02, 2010 10:49 AM
To: 'Ken Arnold'
Subject: FW: Concerns about DOI report

Ken,
Chuck's comments are below.
Steve

From: Vest, Charles M.
Sent: Wednesday, June 02, 2010 11:15 AM
To: Blair, Peter
Cc: Skinner, Bob; Godwin, Stephen
Subject: Re: Ken Arnold et al concerns about DOI report

Peter, Bob, and Steve,

Here are my views on this matter:

1. We (NAE) would not censor anyone's views, and in the end it is the authors' decision.

2. Having said this, I do not think it is a good idea to publish an op-ed. My concern remains, but is slightly attenuated, if it is a private communication with those in Interior that they dealt with. My view is that as a matter of national service, some or all of the authors were asked by the White House/Department of the Interior to review materials associated with the 30-day report. I do not know the details of how this task was presented to them. They were informally recommended by the NAE/NRC because of their technical experience and expertise. My view, and I think it the common understanding, is that when asked to serve such a function at this level, you do your best to answer the questions asked of you and end it at that point. One has to realize that many factors must go into making such a major policy decision, and they are very likely to range well beyond the scope of what is typically asked of technical experts, and cannot always be expected to follow a completely technical logic.

3. What troubles me a lot in this instance is that it will be read as if the authors took advantage of the service they had been asked to give to imply extra gravitas to their broader views, in this case regarding the moratorium. In my view, this is not good for them, and will also reflect negatively on the Academies, even though they would be acting as individuals. This would not be helpful as we prepare to undertake the detailed analysis that DOI has requested.

4. Although this is only a rough analogy, in the early 90s I chaired a committee of extraordinary individuals appointed by the President to drive and review a major redesign of the the space station. We worked really hard to answer questions leading to making it a truly international endeavor, cut its cost, reorganize the NASA operations, and move more of it to the private sector. But the one question we never discussed was whether as individuals we thought the station was the right investment for the nation. In retrospect, I think this was the right way to go, and I have been thinking of this analogy since this issue of the op-ed was raised.

5. I appreciate the fact that Ken Arnold and his colleagues have asked about my views. You certainly may share them as you deem fit.

6. Finally, I want to be clear that my views here are not about the moratorium and its wisdom. Although I don't know the whole calculus involved, I have some empathy for their view and understand their disappointment at being surprised by DOI's policy recommendation. Nonetheless, I don't think they or we will be well-served by publishing or delivering this.

--Chuck

From: Skinner, Bob
Sent: Wednesday, June 02, 2010 9:54 AM
To: Vest, Charles M.; Blair, Peter
Cc: Godwin, Stephen
Subject: Ken Arnold et al concerns about DOI report

Chuck/Peter, I am forwarding the email that Steve Godwin received from Arnold last night, along with the latest version of the letter. As you will see from the email, the group is still uncertain about where to send the letter. Ken is most anxious that Chuck be made aware of their concerns and would like some sort of "appropriate response" from the NRC/NAE. Please give me or Steve a call if you would like to discuss. Bob

Robert E. Skinner, Jr.
Executive Director

Transportation Research Board

Ph: 202-334-2936
http://trb.org

From: Godwin, Stephen
Sent: Wednesday, June 02, 2010 9:26 AM
To: Skinner, Bob
Subject: FW: latest Version

Bob,
As we discussed.
Steve

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Tuesday, June 01, 2010 8:43 PM
To: Godwin, Stephen
Subject: latest Version

Attached is latest version with the final (?) list of people endorsing. We have had no one say no, but several have not responded in writing or have said they thought their endorsement would appear self serving because of their backgrounds.

I have talked to Steve Black this evening and he is going to take the document through the DOI and let me know tomorrow if we can influence a way forward in getting an apology for the way things evolved and a redefinition of the moratorium to make it technically more consistent and alleviate some of the unnecessary economic damage.

Are you able to surface it through NRC and NAE on our behalf and make sure that Chuck Vest is aware of our concerns and brings it up to the DOI and White House in the appropriate manner.

Our plan failing an appropriate response from DOI and NAE is to submit it to some of the Congressional Committees, but we really don't want to do this. Some think it should be sent to the House Energy and Economics Committee and the House Select Committee on Energy Independence and Global Warming. One of the signers has connections to staff members on both these committees.

We won't do anything until we hear back from Steve Black tomorrow, but it would be helpful as well if you have the chance to bring this up with Chuck Vest.

Ken

Kenneth E. (Ken) Arnold
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3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

Nguyen, Ngoc B

From: Black, Steve
Sent: Wednesday, June 02, 2010 8:30 PM
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell
Cc: Ken Arnold; PBlair@nas.edu; Kemkar, Neal; Hanley, Kallie
Subject: NAE letter

Dear all – on behalf of the Secretary, thank you again for your assistance with the 30-day safety report. I understand the concerns that some of you have expressed with respect to the executive summary of the final report, which includes a recommendation to impose a 6-month moratorium on all new deepwater drilling to allow time to implement the recommendations contained in the report and to consider the findings and recommendations of the Presidential Commission on the Deepwater Horizon incident. Ultimately, that was a policy decision made by the Administration. As explained below, neither the Secretary nor I intended to imply that you had concurred in that recommendation. The following letter, which each of you will receive shortly (in substantially the same form, I expect) makes that clear.

Please don't hesitate to contact me if you have any questions or concerns. Again, thank you for your valuable and continued assistance. We still have a lot of work ahead of us.

Steve Black

June 2, 2010

Mr. J. Ford Brett
Managing Director
Petroskills, Inc.
3128 E. 66th Place
Tulsa, OK 74135

Dear Mr. Brett:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

As stated in the report, each of the 22 numbered recommendations contained in the report was developed after consulting with a wide range of experts in State and Federal Governments, academic institutions, and industry and advocacy organizations. Given the technical nature of the report and its recommendations, the Department asked Dr. Peter Blair of the National Academy of Engineering to identify a group of recognized academic and industry experts in the relevant fields to provide certain information to the Department related to offshore drilling safety and blowout protection equipment and to review and comment on the proposed safety recommendations to be included in the report. We are indebted to each of you for agreeing to serve in that role and for your stated concurrence with the detailed recommendations contained in the report.

Based on the recommendations contained in the report and the devastating consequences of the ongoing oil spill, the Administration independently concluded that a 6-month moratorium on new deepwater offshore drilling was necessary

to implement the safety recommendations contained in the report and to learn from the information and recommendations developed by the Presidential Commission and other ongoing investigations into the Deepwater Horizon incident and resulting BP oil spill.

By listing you as members of the NAE panel that peer-reviewed the 22 safety recommendations contained in the report, we did not mean to imply that you also agreed with the decision to impose a moratorium on all new deepwater drilling. While that recommendation and decision were based on the safety recommendations contained in the report, in particular the need for new blowout preventer and other safety equipment on subsea BOP stacks used on floating drilling rigs, and the need for better wild-well intervention techniques in the event of future emergencies like the BP oil spill, particularly in deepwater, we acknowledge that you were not asked to review or comment on the scope of the proposed moratorium. We regret any misunderstanding or confusion related to the inclusion of the recommendation to impose a 6-month moratorium on all new deepwater wells in the executive summary of the final report.

Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

Burley, Jamie L

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Wednesday, June 02, 2010 10:07 PM
To: Black, Steve
Subject: Re: NAE letter

Steve

Thanks. By the way, my address is [redacted]

Tnx

Ford Brett

(m) +1 918 408 9516

On Jun 2, 2010, at 7:30 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

> Dear all – on behalf of the Secretary, thank you again for your assistance with the 30-day safety report. I understand the concerns that some of you have expressed with respect to the executive summary of the final report, which includes a recommendation to impose a 6-month moratorium on all new deepwater drilling to allow time to implement the recommendations contained in the report and to consider the findings and recommendations of the Presidential Commission on the Deepwater Horizon incident. Ultimately, that was a policy decision made by the Administration. As explained below, neither the Secretary nor I intended to imply that you had concurred in that recommendation. The following letter, which each of you will receive shortly (in substantially the same form, I expect) makes that clear.
>
> Please don't hesitate to contact me if you have any questions or concerns. Again, thank you for your valuable and continued assistance. We still have a lot of work ahead of us.
>
> Steve Black
>
> June 2, 2010
>
> Mr. J. Ford Brett

Managing Director

Petroskills, Inc.

3128 E. 66th Place

Tulsa, OK 74135

Dear Mr. Brett:

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Based on the recommendations contained in the report and the devastating consequences of the ongoing oil spill, the Administration independently concluded that a 6-month moratorium on new deepwater offshore drilling was necessary to implement the safety recommendations contained in the report and to learn from the information and recommendations developed by the Presidential Commission and other ongoing investigations into the Deepwater Horizon incident and resulting BP oil spill.

By listing you as members of the NAE panel that peer-reviewed the 22 safety recommendations contained in the report, we did not mean to imply that you also agreed with the decision to impose a moratorium on all new deepwater drilling. While that recommendation and decision were based on the safety recommendations contained in the report, in particular the need for new blowout preventer and other safety equipment on subsea BOP stacks used on floating drilling rigs, and the need for better wild-well intervention techniques in the event of future emergencies like the BP oil spill, particularly in deepwater, we acknowledge that you were not asked to

review or comment on the scope of the proposed moratorium. We regret any misunderstanding or confusion related to the inclusion of the recommendation to impose a 6-month moratorium on all new deepwater wells in the executive summary of the final report.

Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

Steve Black

Counselor to the Secretary

U.S. Department of the Interior

1849 C Street, N.W., MS 7229

Washington, D.C. 20240

Phone: 202-208-4123

Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

Nguyen, Ngoc B

From: Black, Steve
Sent: Wednesday, June 02, 2010 10:06 PM
To: 'FBrett@PetroSkills.com'
Subject: Re: NAE letter

Good to know. Thank you.

Steve

From: Ford Brett <FBrett@PetroSkills.com>
To: Black, Steve
Sent: Wed Jun 02 22:06:50 2010
Subject: Re: NAE letter

Steve

Thanks. By the way, my address is [redacted]

Tnx

Ford Brett

(m) +1 918 408 9516

On Jun 2, 2010, at 7:30 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

> Dear all – on behalf of the Secretary, thank you again for your assistance with the 30-day safety report. I understand the concerns that some of you have expressed with respect to the executive summary of the final report, which includes a recommendation to impose a 6-month moratorium on all new deepwater drilling to allow time to implement the recommendations contained in the report and to consider the findings and recommendations of the Presidential Commission on the Deepwater Horizon incident. Ultimately, that was a policy decision made by the Administration. As explained below, neither the Secretary nor I intended to imply that you had concurred in that recommendation. The following letter, which each of you will receive shortly (in substantially the same form, I expect) makes that clear.
>
> Please don't hesitate to contact me if you have any questions or concerns. Again, thank you for your valuable and continued assistance. We still have a lot of work ahead of us.
>
> Steve Black

June 2, 2010

Mr. J. Ford Brett

Managing Director

Petroskills, Inc.

3128 E. 66th Place

Tulsa, OK 74135

Dear Mr. Brett:

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Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

Steve Black

Counselor to the Secretary

U.S. Department of the Interior

1849 C Street, N.W., MS 7229

Washington, D.C. 20240

Phone: 202-208-4123

Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Wednesday, June 02, 2010 10:24 PM
To: Black, Steve
Subject: Re: NAE letter

Steve

What are you doing answering email at this time?

(b) (5) [redacted]

[redacted]

Ford Brett

(m) +1 918 408 9516

On Jun 2, 2010, at 9:06 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

> Good to know. Thank you.
>
> Steve
>
> ---
>
> **From**: Ford Brett <FBrett@PetroSkills.com>
> **To**: Black, Steve
> **Sent**: Wed Jun 02 22:06:50 2010
> **Subject**: Re: NAE letter
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Please don't hesitate to contact me if you have any questions or concerns. Again, thank you for your valuable and continued assistance. We still have a lot of work ahead of us.

Steve Black

June 2, 2010

Mr. J. Ford Brett

Managing Director

Petroskills, Inc.

3128 E. 66th Place

Tulsa, OK 74135

Dear Mr. Brett:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

As stated in the report, each of the 22 numbered recommendations contained in the report was developed after consulting with a wide range of experts in State and Federal Governments, academic institutions, and industry and advocacy organizations. Given the technical nature of the report and its recommendations, the Department asked Dr. Peter Blair of the National Academy of Engineering to identify a group of recognized academic and industry experts in the relevant fields to provide certain information to the Department related to offshore drilling safety and blowout protection equipment and to review and comment on the proposed safety recommendations to be included in the report. We are indebted to each of you for agreeing to serve in that role and for your stated concurrence with the detailed recommendations contained in the report.

Based on the recommendations contained in the report and the devastating consequences of the ongoing oil spill, the Administration independently concluded that a 6-month moratorium on new deepwater offshore drilling was necessary to implement the safety recommendations contained in the report and to learn from the information and recommendations developed by the Presidential Commission and other ongoing investigations into the Deepwater Horizon incident and resulting BP oil spill.

By listing you as members of the NAE panel that peer-reviewed the 22 safety recommendations contained in the report, we did not mean to imply that you also agreed with the decision to impose a moratorium on all new deepwater drilling. While that recommendation and decision were based on the safety recommendations contained in the report, in particular the need for new blowout preventer and other safety equipment on subsea BOP stacks used on floating drilling rigs, and the need for better wild-well intervention techniques in the event of future emergencies like the BP oil spill, particularly in deepwater, we acknowledge that you were not asked to review or comment on the scope of the proposed moratorium. We regret any misunderstanding or confusion related to the inclusion of the recommendation to impose a 6-month moratorium on all new deepwater wells in the executive summary of the final report.

Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

Steve Black

Counselor to the Secretary

U.S. Department of the Interior

1849 C Street, N.W., MS 7229

Washington, D.C. 20240

Phone: 202-208-4123

Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

Nguyen, Ngoc B

From: Black, Steve
Sent: Wednesday, June 02, 2010 10:34 PM
To: 'FBrett@PetroSkills.com'
Subject: Re: NAE letter

Am a bit of a workaholic like my boss. It goes with the territory.

(b) (5) [redacted]

[redacted]

Let's keep talking,

Steve

From: Ford Brett <FBrett@PetroSkills.com>
To: Black, Steve
Sent: Wed Jun 02 22:23:50 2010
Subject: Re: NAE letter

Steve

What are you doing answering email at this time?

(b) (5) [redacted]

[redacted]

Ford Brett

(m) +1 918 408 9516

On Jun 2, 2010, at 9:06 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

> Good to know. Thank you.
>
> Steve
>
> ---
>
> **From**: Ford Brett <FBrett@PetroSkills.com>
> **To**: Black, Steve
> **Sent**: Wed Jun 02 22:06:50 2010
> **Subject**: Re: NAE letter

Steve

Thanks. By the way, my address is [redacted]

Tnx

Ford Brett

(m) +1 918 408 9516

On Jun 2, 2010, at 7:30 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

> Dear all – on behalf of the Secretary, thank you again for your assistance with the 30-day safety report. I understand the concerns that some of you have expressed with respect to the executive summary of the final report, which includes a recommendation to impose a 6-month moratorium on all new deepwater drilling to allow time to implement the recommendations contained in the report and to consider the findings and recommendations of the Presidential Commission on the Deepwater Horizon incident. Ultimately, that was a policy decision made by the Administration. As explained below, neither the Secretary nor I intended to imply that you had concurred in that recommendation. The following letter, which each of you will receive shortly (in substantially the same form, I expect) makes that clear.
>
> Please don't hesitate to contact me if you have any questions or concerns. Again, thank you for your valuable and continued assistance. We still have a lot of work ahead of us.
>
> Steve Black
>
> June 2, 2010
>
> Mr. J. Ford Brett
>
> Managing Director
>
> Petroskills, Inc.

3128 E. 66th Place

Tulsa, OK 74135

Dear Mr. Brett:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

Steve Black

Counselor to the Secretary

U.S. Department of the Interior

1849 C Street, N.W., MS 7229

Washington, D.C. 20240

Phone: 202-208-4123

Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Thursday, June 03, 2010 8:56 AM
To: Black, Steve
Subject: RE: NAE letter

Steve

I know this is the least of your concerns but I thought I should assure you I have not charged the DOI for an hour of my time since Wednesday May 26 when I finished my last assigned task of reviewing the final draft.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Wednesday, June 02, 2010 7:30 PM
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell
Cc: Ken Arnold; PBlair@nas.edu; Kemkar, Neal; Hanley, Kallie
Subject: NAE letter

Dear all – on behalf of the Secretary, thank you again for your assistance with the 30-day safety report. I understand the concerns that some of you have expressed with respect to the executive summary of the final report, which includes a recommendation to impose a 6-month moratorium on all new deepwater drilling to allow time to implement the recommendations contained in the report and to consider the findings and recommendations of the Presidential Commission on the Deepwater Horizon incident. Ultimately, that was a policy decision made by the Administration. As explained below, neither the Secretary nor I intended to imply that you had concurred in that recommendation. The following letter, which each of you will receive shortly (in substantially the same form, I expect) makes that clear.

Please don't hesitate to contact me if you have any questions or concerns. Again, thank you for your valuable and continued assistance. We still have a lot of work ahead of us.

Steve Black

June 2, 2010

Mr. J. Ford Brett
Managing Director
Petroskills, Inc.

3128 E. 66th Place
Tulsa, OK 74135

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Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

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Steve Black
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U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

Nguyen, Ngoc B

From: Benton Baugh [bbaugh@radoil.com]
Sent: Monday, June 14, 2010 7:17 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

I will be able to participate.

Regards,

Benton F. Baugh

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

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From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a conference call at 4:15pm EASTERN tomorrow, June 15, 2010 regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. The Secretary would like to thank you for your contributions to the report and discuss follow-up implementation plans. This conference call is limited to the people who have received this email. Please let Lindsay Dubin (cc'd) and me know by 12:00pm EASTERN tomorrow if you will be able to participate in this call. We will send you a conference call number upon our receipt of your participation.

Thank you,

Kallie Hanley
Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Monday, June 14, 2010 8:00 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

Kallie –

I will be able to attend the call.

I'm in Kuala Lumpur right now, but will be up early anyway.

Ford Brett

PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

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Thank you,

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Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Monday, June 14, 2010 9:33 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

I will be able to participate

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

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desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Monday, June 14, 2010 9:35 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

I am sorry. I made a mistake for some reason I thought the call was later in the day. I will be on an airplane flying from NYC to Houston which lands n Houston at 1:21 PM Houston time.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
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Thank you,

Kallie Hanley
Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Monday, June 14, 2010 9:38 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

Sorry once again. I now see the call is at 4:15 PM Eastern which is 3:15 Houston time. God and Continental willing I can participate.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Monday, June 14, 2010 8:35 PM
To: 'Hanley, Kallie'
Cc: 'Dubin, Lindsay'; 'Kemkar, Neal'; 'Black, Steve'
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

I am sorry. I made a mistake for some reason I thought the call was later in the day. I will be on an airplane flying from NYC to Houston which lands n Houston at 1:21 PM Houston time.

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Home: 713-939-1034
www.karnoldconsulting.com

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

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Thank you,

Kallie Hanley
Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Chenevert, Martin E [mechenevert@austin.utexas.edu]
Sent: Tuesday, June 15, 2010 11:42 AM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

Dear Kallie:
I just arrived in my office. If it is still possible, please include me in this call.
Sincerely,
Martin E. Chenevert

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

Good evening,

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Thank you,

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Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Arnold Stancell [acstancell@msn.com]
Sent: Tuesday, June 15, 2010 2:25 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Black, Steve; Kemkar, Neal
Subject: Re: Call today with Secretary Salazar

Kallie,

I can participate in the conference call.

Best regards,
Arnie

----- Original Message -----
From: Hanley, Kallie
To: Hanley, Kallie
Cc: Dubin, Lindsay ; Black, Steve ; Kemkar, Neal
Sent: Tuesday, June 15, 2010 8:00 AM
Subject: Call today with Secretary Salazar

Good Morning,

Interior Secretary Ken Salazar hopes that you can participate in a conference call at 4:15pm EASTERN today, June 15, 2010 regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. The Secretary would like to thank you for your contributions to the report and discuss follow-up implementation plans. This conference call is limited to the people who have received this email. Please let Lindsay Dubin (cc'd) and me know by 12:00pm EASTERN today if you will be able to participate in this call. We will send you a conference call number upon our receipt of your participation.

Thank you,

Kallie Hanley

Office of the White House Liaison | The U.S. Department of the Interior

desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Thursday, June 17, 2010 6:45 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

I will attend in person. Please let me know who else was invited.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a meeting at 10:00am EASTERN Monday, June 21, 2010 as a follow-up to Tuesday's conference call regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. For those of you who are unable to join this meeting in person, there will be a call-in option for you to participate remotely. This meeting/conference call is limited to the people who have received this email. Please let Kallie Hanley (cc'd) and me know by 3:00pm EASTERN tomorrow if you will be able to participate. Please be sure to indicate whether you will be attending in person or via phone. We will reach out to you with arrival instructions or a conference call number following our receipt of your participation.

Thank you,

Lindsay Dubin
Special Assistant
Office of Scheduling and Advance
The U.S. Department of the Interior
p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Thursday, June 17, 2010 7:29 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Lindsay – I will be able to participate – let me know the dial in. I'm sorry I won't be able to attend in person.

Thanks,

Ford Brett

PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

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The U.S. Department of the Interior
p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Benton Baugh [bbaugh@radoil.com]
Sent: Thursday, June 17, 2010 8:43 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

I will be attending in person.

Regards,

Benton F. Baugh

Radoil, Inc.

ISO 9001:2008

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Houston, TX 77041
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From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
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Thank you,

Lindsay Dubin
Special Assistant

Office of Scheduling and Advance
The U.S. Department of the Interior
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From: Chenevert, Martin E [mechenevert@austin.utexas.edu]
Sent: Friday, June 18, 2010 2:40 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10
Attachments: GEST FORECASTED_ACTIVITY_11.pdf; Gulf of Mexico Analysis and Summary_updated+Sources.ppt; LMOGA.pdf; LMOGAers.pdf; NOIA.doc

Sirs:
Unfortunately I am unable to attend the meeting in person. Please provide me with the call in number.
I have attached several resources that I plan to introduce at the Monday meeting. It would be useful for Secretary Salazar to have these in hand for reference during the meeting.
Sincerely,
Martin E. Chenevert

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a meeting at 10:00am EASTERN Monday, June 21, 2010 as a follow-up to Tuesday's conference call regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. For those of you who are unable to join this meeting in person, there will be a call-in option for you to participate remotely. This meeting/conference call is limited to the people who have received this email. Please let Kallie Hanley (cc'd) and me know by 3:00pm EASTERN tomorrow if you will be able to participate. Please be sure to indicate whether you will be attending in person or via phone. We will reach out to you with arrival instructions or a conference call number following our receipt of your participation.

Thank you,

Lindsay Dubin
Special Assistant
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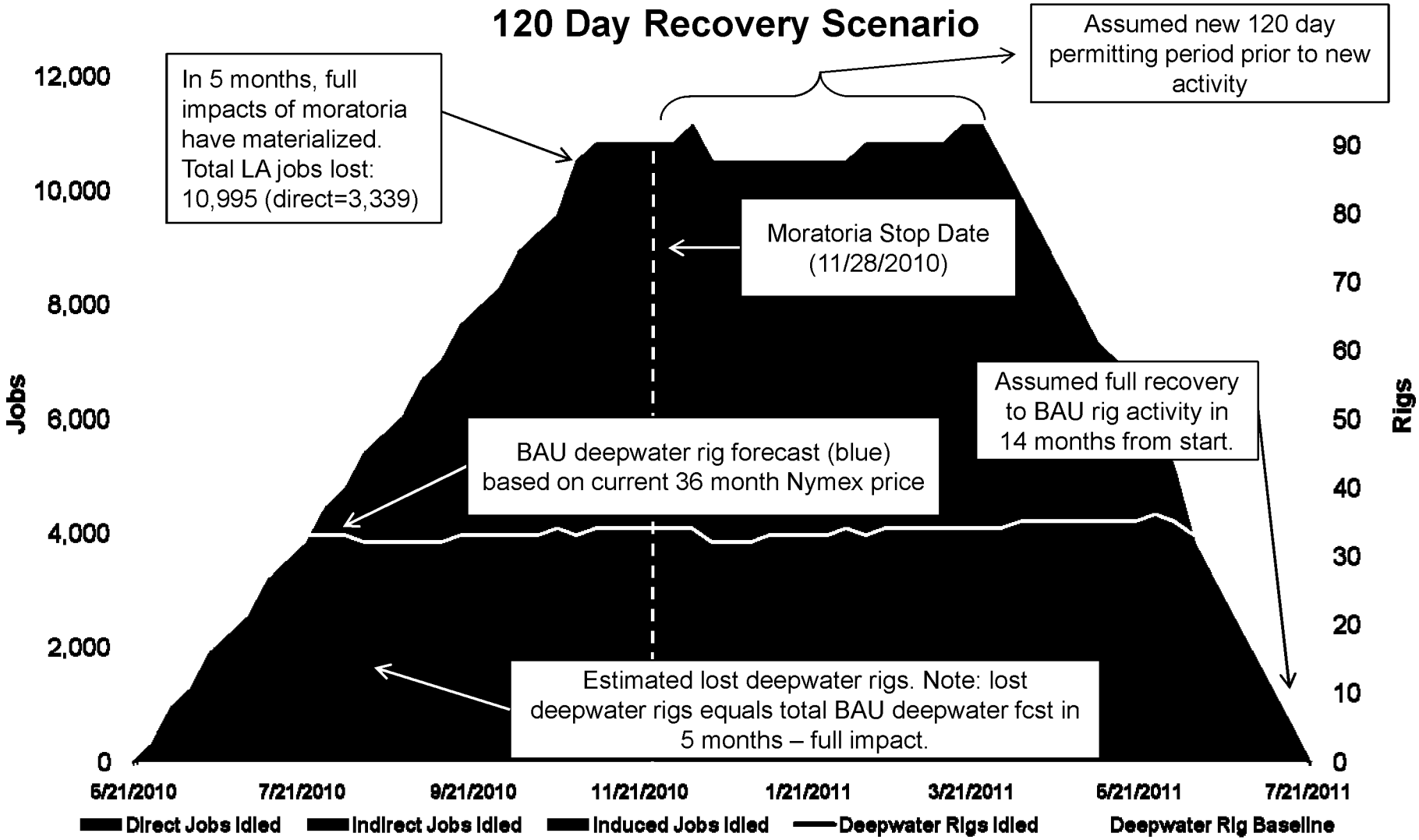
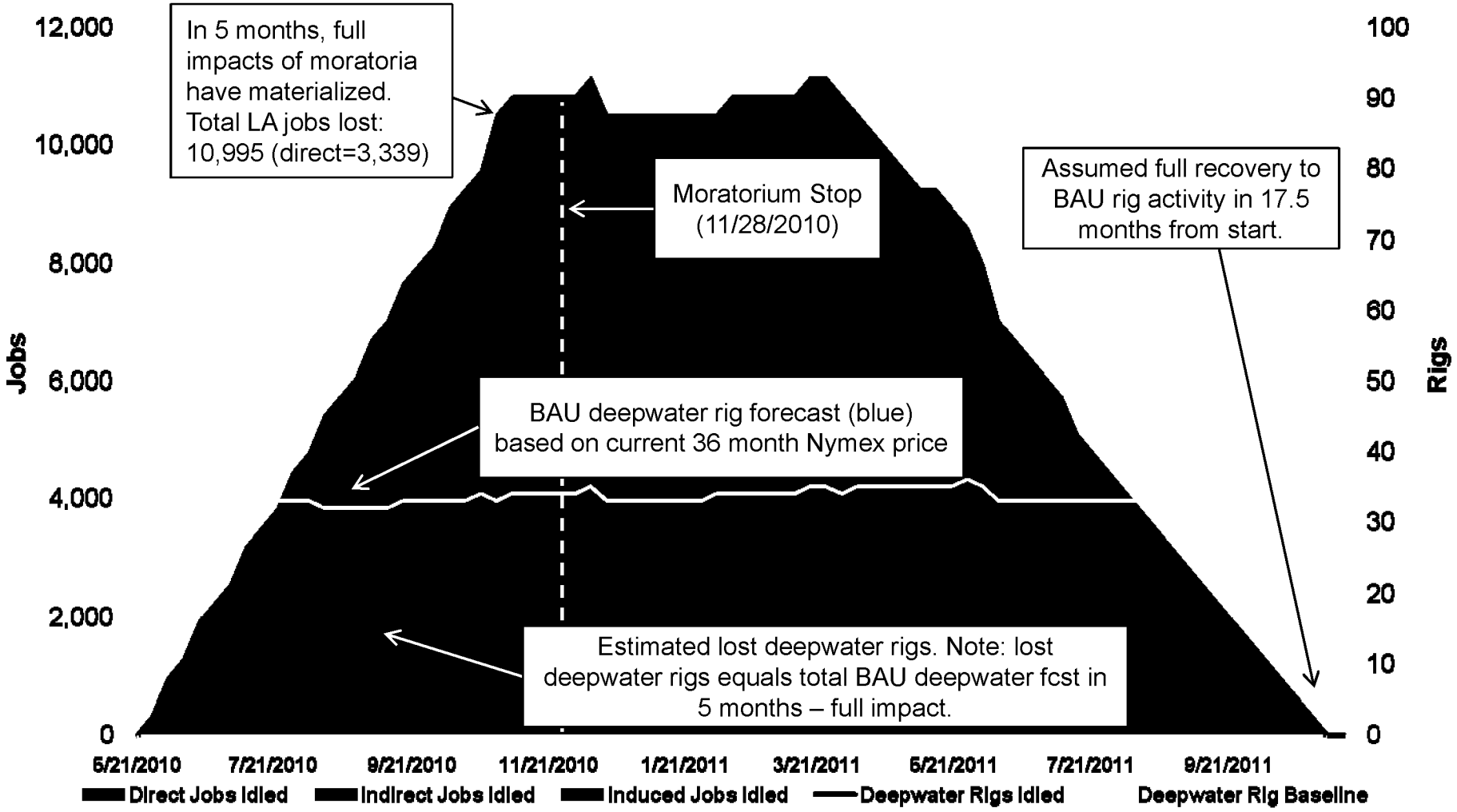
Gulf of Mexico Offshore Deepwater Moratoria Employment Impacts (Louisiana-Only)



Sources: Dept. of Interior, Energy Information Administration, Baker Hughes, CME Group (NYMEX)

Gulf of Mexico Offshore Deepwater Moratoria Employment Impacts (Louisiana-Only)

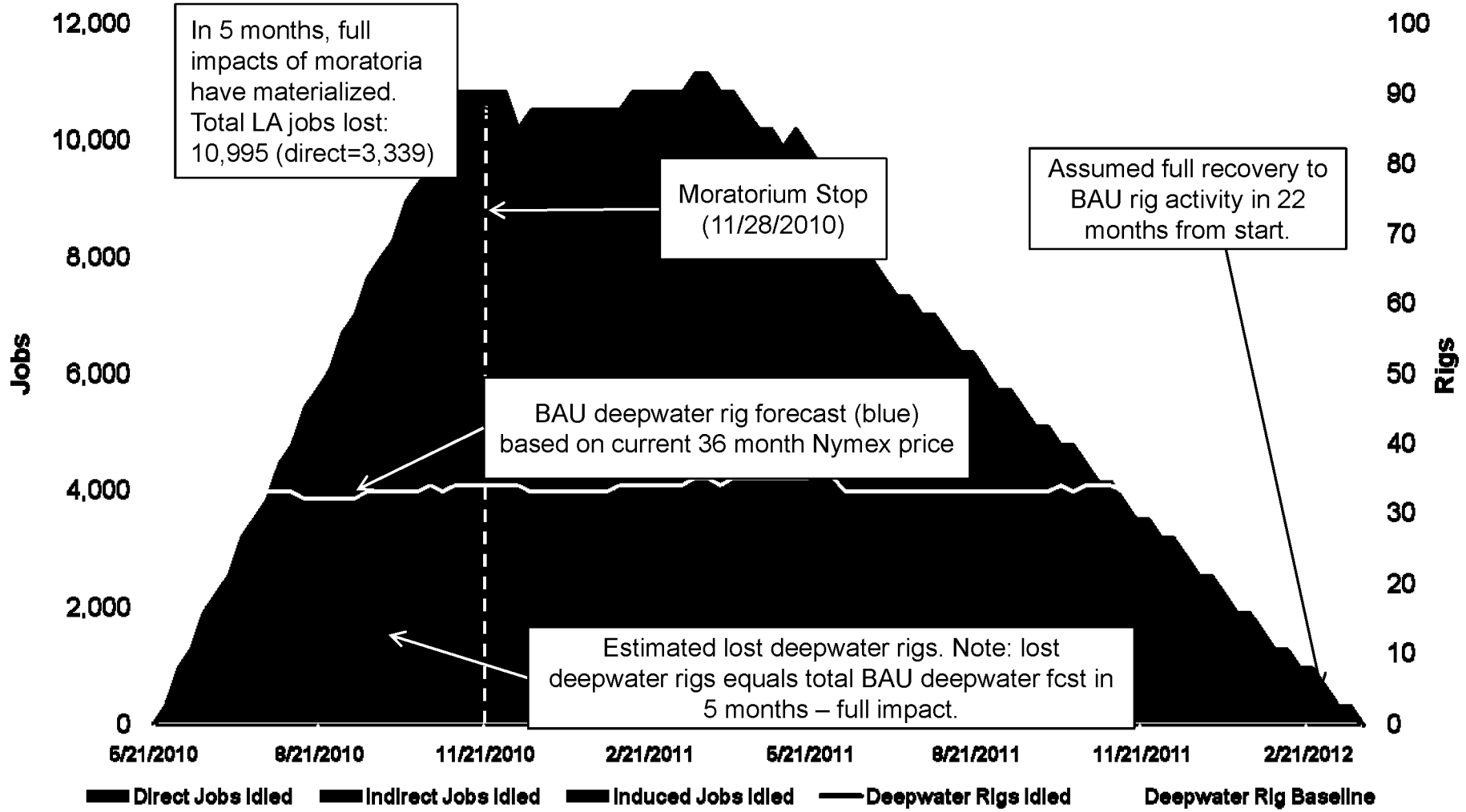
8 Month Recovery Scenario



Sources: Dept. of Interior, Energy Information Administration, Baker Hughes, CME Group (NYMEX)

Gulf of Mexico Offshore Deepwater Moratoria Employment Impacts (Louisiana-Only)

1 Year Recovery Scenario



Sources: Dept. of Interior, Energy Information Administration, Baker Hughes, CME Group (NYMEX)

Gulf of Mexico Analysis & Summary

- Gulf States Economic Sector Analysis
- Summary of Third Party Production Analyses and Economic

Gulf States* GDP Contributions

Bureua of Economic Analysis	Real GDP Millions of Chained 2000 $			
	2004	2005	2006	2007
Tourism Related				
Accomodation	16,058	16,643	16,812	17,046
Amusement, gambling, and recreation	11,930	12,245	12,630	13,010
Food services and drinking places	33,957	35,317	36,726	37,630
Tourism Total	61,945	64,205	66,168	67,686
Oil and gas extraction	48,600	44,134	46,397	46,271
Forestry, fishing, and related activities	5,446	5,851	5,775	5,558
Total	115,991	114,190	118,340	119,515

GDP by NAICS Classifications**

Data Considerations:

- **State level data is only available through 2007**
- **Bureau of Economic Analysis Data can only be pulled under certain categories**
  - **Oil and Gas extraction includes both onshore and offshore development**
  - **Individual fishing data is not available, included in data segment shown**
  - **No separate tourism category available, must be assembled from separate groups**

*Alabama, Florida, Louisiana, Mississippi, & Texas

**North America Industry Classification System definitions in backup

Deepwater Drilling Halt
Production Impact – 3rd Party Analysis

80% of the Gulf of Mexico's oil and 45% of its natural gas is from deepwater operations (more than 1000 feet of water).[1]

LMOGA estimates show the six-month halt would defer 4% of anticipated 2011 deepwater Gulf of Mexico production (80,000 bbls per day), and likely render seven current discoveries sub-economic.[2]

A 6 month halt in new drilling would defer 80,000 boe/d, or 4% of 2011 deepwater Gulf of Mexico production.[3]

Delays in current project timeframes potentially defer over 350,000 boe/d (almost 19%) of 2015 and 2016 deepwater Gulf of Mexico production.[3]

Deferred production begins to recover in 2019. However, we can assume that the slowdown in activity rates might also defer exploration activity, thereby pushing back production from Yet-to-Find fields. The overall effect could be to defer expected production over the next 10 years by significant amounts.[3]

We have included the following delays to Probable Developments: one year for near-term projects; two years for projects that are either more challenging (for example, Lower Miocene or Lower Tertiary), or those that are at an early stage of appraisal.[3]

According to IHS data, US GOM production accounted for 30% of 2009 crude oil production (1.6 MBD out of 5.3 MBD). This 1.6 MBD of Gulf supply was the result of a 33%, or 399,000 barrels per day, increase in output from 2008. Most of the production increase was due to new production from 5 deepwater fields.[4]

The fall in US demand was the most important factor that reduced US foreign oil imports in 2009, but higher domestic production, mostly from deepwater, also played a role.[4]

Deepwater Drilling Halt
Economic Impact – 3rd Party Analysis

- Between $250,000 and $500,000 per rig, per day results in roughly $8,250,000 to $16,500,000 per day in costs for the 33 idle rigs[1]
- Each drilling platform supports 800 to 1400 jobs at risk per idle rig[1]
- The average wage for these jobs is $1,800 per week; the potential for lost wages is between $5,000,000 and $10,000,000 for one month for each drilling platform[1]
- A 6 month halt in drilling could result in total lost wages of between $990,000,000 and $1,800,000,000 for all 33 platforms[1]
- In Louisiana alone there could potentially be 3,000 to 6,000 lost jobs in the next two to three weeks and over 10,000 jobs lost in the coming months[5]

Deepwater Drilling Halt
Cost Impact – 3rd Party Analysis

Higher drilling costs might jeopardize exploration in frontier areas. More immediately, we estimate that seven current discoveries could be rendered sub-economic, putting $7.6 billion in future government revenues at risk.[3]

If tightened regulation and new drilling practices cause longer drill times, both exploration and development well costs will increase. Driving up exploration costs in frontier areas that are already economically marginal could dampen appetites for exploring these areas, which are vital for long-term output from deepwater GOM.[3]

Another threat to smaller companies is the proposal floated in Washington DC to increase the cap on oil companies' liability for oil spill damages from $75 million to $10 billion. Higher insurance bills following the hurricane season of 2005 had already chased some smaller companies off the GOM shelf.[3]

At the time of the blowout there were 67 rigs active in the GOM, both jackup rigs (37 rigs) and semisubmersibles or drill ships (30 rigs). The total semisubmersible GOM fleet is 30 rigs, the moratorium will affect 16 rigs and will leave only 14 actively drilling for production.[4]

The impact of 16 additional rigs coming onto the market looking for opportunities to keep rigs and crews active is likely to depress rig rates (likely drop 10% by third quarter 2010 and potential to drop up to 20% in day rates).[4]

Backup

Oil and Gas Economic Data

Bureau of Economic Analysis – Oil and Gas extraction includes both onshore and offshore development

211 Oil and Gas Extraction*

Industries in the Oil and Gas Extraction subsector operate and/or develop oil and gas field properties. Such activities may include exploration for crude petroleum and natural gas; drilling, completing, and equipping wells; operating separators, emulsion breakers, desilting equipment, and field gathering lines for crude petroleum and natural gas; and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This subsector includes the production of crude petroleum, the mining and extraction of oil from oil shale and oil sands, and the production of natural gas, sulfur recovery from natural gas, and recovery of hydrocarbon liquids.

Establishments in this subsector include those that operate oil and gas wells on their own account or for others on a contract or fee basis. Establishments primarily engaged in providing support services, on a fee or contract basis, required for the drilling or operation of oil and gas wells (except geophysical surveying and mapping, mine site preparation, and construction of oil/gas pipelines) are classified in Subsector 213, Support Activities for Mining.

07 North America Industry Classification System codes for data

Bureau of Economic Analysis – Individual fishing data is not available: it is included within data segment incorporating the following three sectors

113 Forestry and Logging*

Industries in the Forestry and Logging subsector grow and harvest timber on a long production cycle (i.e., of 10 years or more). Long production cycles use different production processes than short production cycles, which require more horticultural interventions prior to harvest, resulting in processes more similar to those found in the Crop Production subsector. Consequently, Christmas tree production and other production involving production cycles of less than 10 years, are classified in the Crop Production subsector.

114 Fishing, Hunting and Trapping*

Industries in the Fishing, Hunting, and Trapping subsector harvest fish and other wild animals from their natural habitats and are dependent upon a continued supply of the natural resource. The harvesting of fish is the predominant economic activity of this subsector and it usually requires specialized vessels that, by the nature of their size, configuration and equipment, are not suitable for any other type of production, such as transportation.

115 Support Activities for Agriculture and Forestry*

Industries in the Support Activities for Agriculture and Forestry subsector provide support services that are an essential part of agricultural and forestry production. These support activities may be performed by the agriculture or forestry producing establishment or conducted independently as an alternative source of inputs required for the production process for a given crop, animal, or forestry industry. Establishments that primarily perform these activities independent of the agriculture or forestry producing establishment are in this subsector.

07 North America Industry Classification System codes for data

Tourism Economic Data

Bureau of Economic Analysis – Individual data available that will include tourism: no separate tourism category available

713 Amusement, Gambling, and Recreation Industries*

Industries in the Amusement, Gambling, and Recreation Industries subsector (1) operate facilities where patrons can primarily engage in sports, recreation, amusement, or gambling activities and/or (2) provide other amusement and recreation services, such as supplying and servicing amusement devices in places of business operated by others; operating sports teams, clubs, or leagues engaged in playing games for recreational purposes; and guiding tours without using transportation equipment.

721 Accommodation*

Industries in the Accommodation subsector provide lodging or short-term accommodations for travelers, vacationers, and others. There is a wide range of establishments in these industries. Some provide lodging only; while others provide meals, laundry services, and recreational facilities, as well as lodging. Lodging establishments are classified in this subsector even if the provision of complementary services generates more revenue. The types of complementary services provided vary from establishment to establishment.

722 Food Services and Drinking Places*

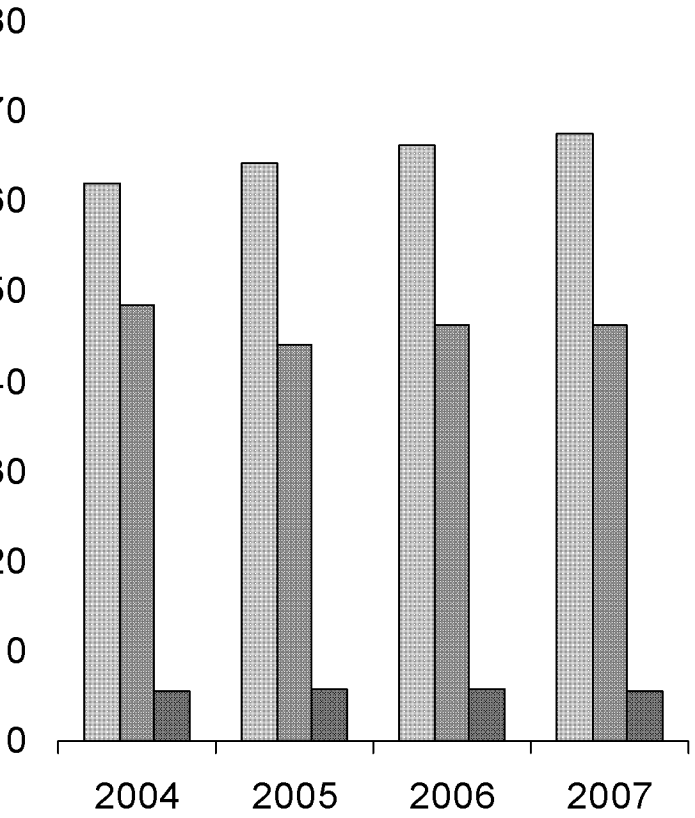
Industries in the Food Services and Drinking Places subsector prepare meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption. There is a wide range of establishments in these industries. Some provide food and drink only; while others provide various combinations of seating space, waiter/waitress services and incidental amenities, such as limited entertainment. The industries in the subsector are grouped based on the type and level of services provided. The industry groups are full-service restaurants; limited-service eating places; special food services, such as food service contractors, caterers, and mobile food services; and drinking places.

07 North America Industry Classification System codes for data

Gulf States* GDP Contributions

DP Contributions by Industrial Category

lion 2000 $



- **Tourism Related Activities**
  - NAICS** code 713, 721 and 722
    - Amusement, Gambling and Recreation Services
    - Accommodation
    - Food Services and Drinking Places
- **Oil and Gas Extraction**
  - NAICS** code 211
    - Crude Petroleum and Natural Gas Extraction
    - Natural Gas Liquid Extraction
- **Forestry, Fishing, and Related Activities**
  - NAICS** codes 113 through 115
    - Forestry and Logging
    - Fishing, Hunting and Trapping
    - Support Activities for Agriculture and Forestry

abama, Florida, Louisiana, Mississippi, & Texas

Resources:

1. *Louisiana Mid-Continent Oil and Gas Association*

- **The Energy Sector: Still A Giant Economic Engine for The Louisiana Economy**
  The Louisiana Oil and Gas Industry has a $70 billion impact upon the state, according to an economic study conducted by Dr. Loren Scott on behalf of the Louisiana Mid-Continent Oil and Gas Association. The most recent study shows that each petroleum industry job supports 4.5 additional jobs in the state. The industry pays $1.4 billion in state taxes and fees and more than $4 billion in wages.

- http://www.lmoga.com/overview.html

- http://www.lmoga.com/erfull.pdf

- http://www.lmoga.com/ers.pdf

2. *National Ocean Industries Association*

- http://www.noia.org/website/article.asp?id=38566

Resources:

NOIA site:
http://video.nytimes.com/video/2010/06/11/us/1247468032713/the-roughnecks-lament.html

3. Wood MacKenzie: *Deepwater Horizon* tragedy: near-term and long-term implications in deepwater Gulf of Mexico* Contact Information:

- julie.wilson@woodmac.com +1 713 470 1627
- john.dean@woodmac.com +1 713 470 1688
- mark.oberstoetter@woodmac.com +1 713 470 1822

4. CERA: *Oil Well Blowout and the Future of Deepwater E&P* and *The Gulf of Mexico Blowout**

IHS CERA Houston
5333 Westheimer Road
Houston, Texas 77056 USA
Tel: +1 713-840-8282
Fax: +1 713-599-9111

ailable by subscription

Resources:

5. Louisiana Department of Economic Development

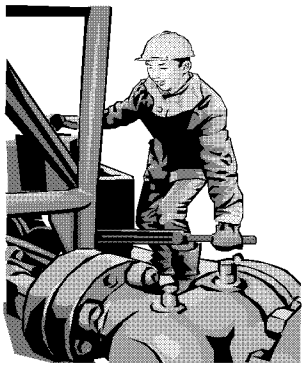
- http://emergency.louisiana.gov/Releases/06102010-moratorium.html

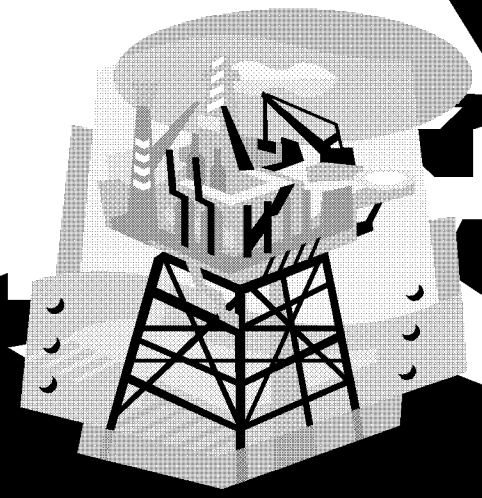
Bureau of Economic Analysis: GDP by Region

- http://www.bea.gov/regional/gsp/

The Energy Sector:

Still A Giant Economic Engine For The Louisiana Economy





By Loren C. Scott, Ph.D.

September 2007

THE "ENERGY" SECTOR: STILL A GIANT ECONOMIC ENGINE FOR THE LOUISIANA ECONOMY

by

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July 2007

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EXECUTIVE SUMMARY

This study is an update of a study done for Mid-Continent Oil and Gas in 2002 entitled, "The 'Energy Sector': A Giant Economic Engine for the Louisiana Economy." Our conclusions from this review of the impact of the extraction, refining, and pipeline industries can be summarized in a series of bullet points:

- Louisiana, through the luck of natural resource distribution, is the nation's **number one producer of crude oil and the number two producer of natural gas** among the 50 states.

- Louisiana ranks **number two among the states in petroleum refining** capacity.

- There are over **83,000 miles of pipelines** transporting crude petroleum and natural gas within the state and in its offshore area of the Gulf of Mexico.

- Through both their direct and multiplier effects **these three industries supported $70.2 billion in sales in Louisiana firms, generated over $12.7 billion in household earnings for Louisianans, and supported 320,280 jobs in the state in 2005.** The $12.7 billion in earnings represented 15.4 percent of total earnings in Louisiana in that year. At least four countries listed in the **Statistical Abstract of the U.S.** have smaller gross domestic products.

- On average **the job multiplier for these two industries was 5.5**. That is, for every job created in these sectors 4.5 additional jobs are created in other sectors in the state. The job multiplier for the oil and gas extraction industry is about 3.9 and for the very capital-intensive refinery industry it is about 11.7.

- These three industries **directly paid over $1.4 billion in state taxes and fees** in FY06, or about 14.4 percent of total state taxes, licenses, and fees collected.

- A very conservative estimate is that these three industries paid **$172.6 million in ad valorem taxes to local governments** in the state in 2005. In 31 of the state's 64 parishes, these ad valorem taxes exceeded $1 million. In 12 parishes the number exceeded $5 million.

- Through the $12.7 billion in household earnings generated by these three industries, **state government was able to collect an estimated $890,939,000 in taxes in FY06.**

- The $12.7 billion in household earnings generated by these three industries added approximately **$560,018,800---over one half billion dollars---to the treasuries of local governments** in FY06.

- In 2006, there were **58,278 workers employed** in the extraction, pipeline, and refining industries---a number approximately equivalent to the 2005 population of Acadia Parish, the 19th most populous parish in the state. Fifty-four of Louisiana's 64 parishes had total covered employment smaller than this number in 2005.

- These three industries paid nearly **$4.2 billion in wages** for Louisiana households in 2006---a figure equivalent to 6.4 percent of total covered wages in the state that year.

- In the third quarter of 2006, the average weekly wage in Louisiana's manufacturing sector was $984. **In refining it was 59 percent higher at $1,567 and the extraction sector paid $1,804 weekly---83 percent higher than the average in manufacturing. Weekly wages in the pipeline industry were $1,345---37 percent higher than the average manufacturing wage.**

- **Energy jobs and earnings are found in all of Louisiana's 64 parishes in 2006**. There were 14 parishes where more than 1,000 workers were employed in these three industries. In Lafayette Parish (the highest employment parish), 15,241 workers were directly employed in these energy sectors.

- Value added is a broader measure of the total income created directly in an industry. In 2002 (latest data available), **Louisiana's oil and gas extraction sector produced over $24.6 billion in total income**. That figure exceeds the **sum** of all the state's manufacturing sectors except petroleum and coal products. We have roughly estimated the extraction sector's value added in 2005 (when energy prices were much higher than 2002) to be about $47.5 billion.

- The refining sector's value added in 2005 was a huge $34.3 billion. That figure exceeds the **sum** of all the state's other manufacturing sectors.

THE "ENERGY" SECTOR: STILL A GIANT ECONOMIC ENGINE FOR THE LOUISIANA ECONOMY

I. Introduction: It's the Engine That Matters

Survey car owners and you will find a consensus on one issue: It is the engine that makes the difference. A weak, undependable engine gets you nowhere. It is a drag on your attempts to get things done. On the other hand a strong, powerful engine gets you where you need to go quickly and dependably. Much gets accomplished.

In the world of economics, some states have only weak engines for economic growth. Their basic industries are either non-existent or are made up of slow-growing, low-wage manufacturing firms. These states are doomed to remain at the bottom rung of the economic ladder, and their prospects for growth are lackluster at best. Examples would be the states of Arkansas and West Virginia.

Other states, either because of the sheer luck of the draw in resource distribution and/or because of innovative development policies, have attracted industries that are veritable dynamos of energy---creating high-wage jobs and spillover business for all kinds of firms. These states not only enjoy the benefits of healthy jobs and income, but also state and local government treasuries get a boost from taxes and fees these industries generate both directly and indirectly.

Louisiana Was Lucky

When it came to the geographical distribution of natural resources, Louisiana "won the flip"so to speak. Below her borders, and in the waters of the adjoining Gulf of Mexico, lies a virtual mother-lode of oil and natural gas. Table 1 details Louisiana's oil production relative to her sister states. **Louisiana is the nation's number one producer of oil, producing nearly 1.4 million**

barrels a day in 2007 (this figure includes the federal outer continental shelf production). This represents 26.4 percent of the nation's crude oil production, just ahead of Texas, with Alaska in a distant third place.[1]

Louisiana was ranked third in this category back in 1995, behind both Texas and Alaska. However, declining reserves in those two states, coupled with larger finds in Louisiana's offshore region, have pushed Louisiana up to the number one slot.

Table 1
Crude Oil & Lease Condensate Production in U.S.: 2007
(1,000 Barrels per Day)

Area	Production	Percent U.S.
United States	5,164	100.0%
Louisiana*	***1,362***	***26.4%***
Texas	1,317	25.5%
Alaska	778	15.1%
California	669	13.0%

*Includes Federal offshore production

The U.S. is also heavily reliant on Louisiana as a source of natural gas. As Table 2 shows, **nearly a fifth of the nation's natural gas comes from Louisiana**. Our state's production of nearly 6.2 trillion cubic feet in 2005 (including federal OCS) ranked it number two behind Texas. **Actually, the value of natural gas produced in Louisiana exceeds the value of the crude oil lifted.**

Table 2
Marketed Value of Natural Gas in U.S.: 2005
(Billions of Cubic Feet)

Area	Production	Percent U.S.
United States	18,951	100.0%
Texas	6,220	32.8%
Louisiana*	***3,471***	***18.3%***
Oklahoma	1,670	8.8%
New Mexico	1,645	8.7%

*Includes Federal offshore production. Source: http://tonto.eia.doe.gov/dnav/ng/hist and http://dnr.louisiana.gov.

Refineries

The tasks of exploring for and lifting these two resources to the surface---what economists label oil and gas extraction---have created thousands of jobs and billions in household income for Louisianans each year. It has also attracted closely related industries to the state as well. For example, **Louisiana ranks number two among the 50 states in petroleum refining capacity** (see Table 3). Louisiana ranks below Texas and ahead of California by this measure.

Table 3
Petroleum Refining Capacity: 2006
(Millions of Barrels per Calendar Day)

Area	Refinery Capacity	Number	Percent U.S.
United Sates	17.370	149	100.0%
Texas	4.678	26	27.0%
Louisiana	*2.901*	*16*	*16.7%*
California	2.027	21	11.7%
Illinois	0.904	4	5.2%

Source: http:/tonto.eia.doe.gov/state/state_energy_profiles

It is interesting to note that our refining industry is quite different from that of California. California uses 21 refineries to refine its 2.0 million barrels of crude a day. Louisiana, on the other hand, uses 16 refineries to handle 45 percent more crude per day (2.9 million barrels). California refines its crude in relatively small refineries. Louisiana uses much larger refineries. Indeed, the ExxonMobil refinery in Baton Rouge is the second largest refinery in the country and the tenth

largest in the world.[2] In addition, California refineries serve only California, while Louisiana refineries serve Louisiana, Texas, Mississippi, Illinois and the eastern seaboard.

Pipelines

A second closely related industry to oil and gas extraction is the **pipeline industry**. Because pipelines are effectively hidden from view, Louisianans are little aware of the massive amount of oil and gas products that move underground in this state. Consider these figures:

- There are 41,320 miles of pipelines in onshore Louisiana.[3] These pipelines carry crude oil, natural gas, petrochemical products, LPG/NGL, and refined products.
- There were 41,689 miles of pipelines in offshore Louisiana, outside the state's jurisdictional boundaries.[4]

These 83,009 miles of pipelines are the ones for which reasonable data are available because they fall under direct state or federal regulation. These do not include the thousands of miles of flow lines and gathering lines that move gas and oil from the wellhead to separating facilities; nor do they include pipelines transporting chemical products with no petroleum base. It is believed that the pipeline industry may be at least twice as large as the numbers in the bulleted points above.

The Trip Ahead

How has such a massive industry affected the economic lives of Louisiana citizens? If the extraction, refining, and pipeline industries are lumped under one heading---the energy industry---has it been a weak or powerful economic engine? Has the whole state benefited from its presence, or have any economic effects been limited to only a few parishes? Are the multiplier effects on other industries in Louisiana small or large? Has the industry's impact on state and local treasuries been trivial or significant?

These are the topics covered in the sections to follow. Section II is devoted to the direct income and employment effects of the energy industry. How many people are employed in it and what is the nature of the wages paid its employees? Section III uses an input/output table to estimate the multiplier impacts of the energy industry. In which sectors are employees benefiting the most from these possible spillover effects? In section IV, the contribution to state and local treasuries is measured along with a discussion of the ten-year industrial tax exemption program. Section V presents tantalizing evidence about remarkable technological changes in these industries. Section VI contains the summary and conclusions. Appendix A contains an analysis of the impact of Hurricanes Katrina and Rita on the industry and its record of recovery from those two horrendous storms.

II. The Direct Employment and Income Impacts

A helpful way to think about an industry's impact on a state is to think of the state's economy like a large economic pond. Into this pond we are going to drop a rock labeled "oil and gas extraction, refining and pipeline industries". Would such a rock make much of a splash in the pond? It is these **direct impacts** that we attempt to measure in this section. In section III, we will examine the extent of the ripples (the multiplier effects) this rock makes in the pond as the ripples work their way to the shore.

"Covered" Employment and Wages

By far the most detailed and reliable information on employment and wages in these three industries are the data gathered by the Louisiana Department of Labor on "covered" employees, i.e., covered by unemployment compensation regulations. Because of legal reporting requirements, detailed data are available down to the parish level in most cases.

Covered Employment

Table 4 contains information on covered employment and annual wages paid in these four energy industries. **In 2006, there were 58,278 covered workers employed in the oil and gas extraction, support activities for mining, refining, and pipeline industries.**[5] To get some idea of the relative size of this number, in 2006 fifty-four of Louisiana's 64 parishes had total covered employment less than 58,278.[6] **The number of persons employed in these industries is approximately equivalent to the 2005 population of Acadia Parish (latest data available), the 19th most populous parish in the state.**[7]

Table 4
Employment and Annual Wages Paid
in Petroleum-Related Industries: Louisiana
2006

Sector	Employment[a]	Annual Wages Paid[b]
Oil & Gas Extraction	7,508	$78,260,409
Support Activities for Mining	38,050	2,305,704,812
Petroleum Refining[c]	10,350	905,228,136
Pipelines	2,370	171,704,658
TOTAL	**58,278**	**$4,170,898,015**

Source: www.Laworks.net. Go to LMI section. [a]Third quarter data. [b]Annual estimate based on three quarters of data. [c]Data are for "petroleum & coal products" sector which is 98 percent petroleum refining.

Covered Annual Wages

What is more remarkable is the impact of these three industries on the incomes of Louisianans who work in these four sectors. According to the data in Table 4, **these three industries generated nearly $4.2 billion in covered wages for these workers in 2006.** These four industries, through their direct effects alone, **generated 6.4 percent of the total covered wages earned in Louisiana in 2006.**[8]

Comparative Weekly Wage Rates

One reason these annual wage numbers are so large is because these four sectors are some of the highest wage industries in the state. Table 5 provides data on the average weekly earnings in these four sectors and Louisiana's manufacturing industries in the third quarter of 2006.

Table 5
Average Weekly Wage – Third Quarter 2006
Louisiana Petroleum-Related Industries & Manufacturing

Sector	Average Weekly Wage
Oil & Gas Extraction	*$1,804*
Petroleum & Coal Products(98% Refinery)	*1,567*
Chemicals & Allied Products	1,499
Pipeline Transportation	*1,345*
Paper Manufacturing	1,213
Support Activities for Mining	*1,209*
Transportation Equipment	1,073
Primary Metals Manufacturing	1,019
Computers & Electronics	927
Machinery Manufacturing	908
Fabricated Metals	810
Non-metallic Minerals	750
Plastics & Rubber Products	727
Wood Products	710
Beverage & Tobacco Products	672
Printing & Related Products	626
Food manufacturing	595
Miscellaneous Manufacturing	527
Furniture Manufacturing	509
Textile Products	472
Apparel Products	440
Average Manufacturing Wage	$984
Average Wage in All Sectors	$683

Source: www.Laworks.net. Go to LMI section.

Note that the oil and gas extraction and refining sectors rank #1 and #2, respectively among the industries listed, with pipeline wages ranking #4 and support activities for mining ranking #6.

Oil and gas extraction's weekly wage of $1,804 is a whopping 83 percent higher than the average wage in manufacturing ($984). Even more telling is that oil and gas extraction wages are almost triple the average wage earned by a Louisiana worker ($683 per week). Refining wages are 59 percent higher than the average manufacturing wage. Both oil and gas extraction and refining are unusually capital-intensive industries requiring very skilled labor for their operations.

Our review of the direct wage and employment impacts of these industries reveal something important about the energy sector. This economic engine is far from small. **It has been a powerful factor for creating thousands of high-wage jobs in Louisiana.**

Job Distribution across the State

Have the benefits of these excellent jobs been narrowly confined to just one area of the state, or have they been more widely distributed across Louisiana? One advantage of the covered employment data is they are available by parish, except where disclosure rules prevent their release.

Table 6 contains the distribution of reporting units, employment, and annual wages paid in the three energy industries by parish for 2000. The data to construct this table were provided by the Research and Statistics Unit of the Louisiana Department of Labor. The Department cannot release data at the parish level unless there are a minimal number of reporting units. Too few a number of reporting units kicks in "disclosure rules" which ensure that an individual firm's employment and wage data cannot be identified.

The most important message from Table 6 is that the benefits of the energy sector are widespread across Louisiana. **Energy jobs and income are found in all of Louisiana's 64 parishes in 2006.** There were 14 parishes where more than 1,000 persons were employed in the energy sector, and in Lafayette Parish there were 15,241 persons working directly in the energy

sector. There were 12 parishes where between 300 and 999 persons were directly employed in the energy sector.

Table 6

Number of Reporting Units, Employment, and Annual Wages in
Oil and Gas Extraction, Refining and Pipeline Industries by Parish: 2006

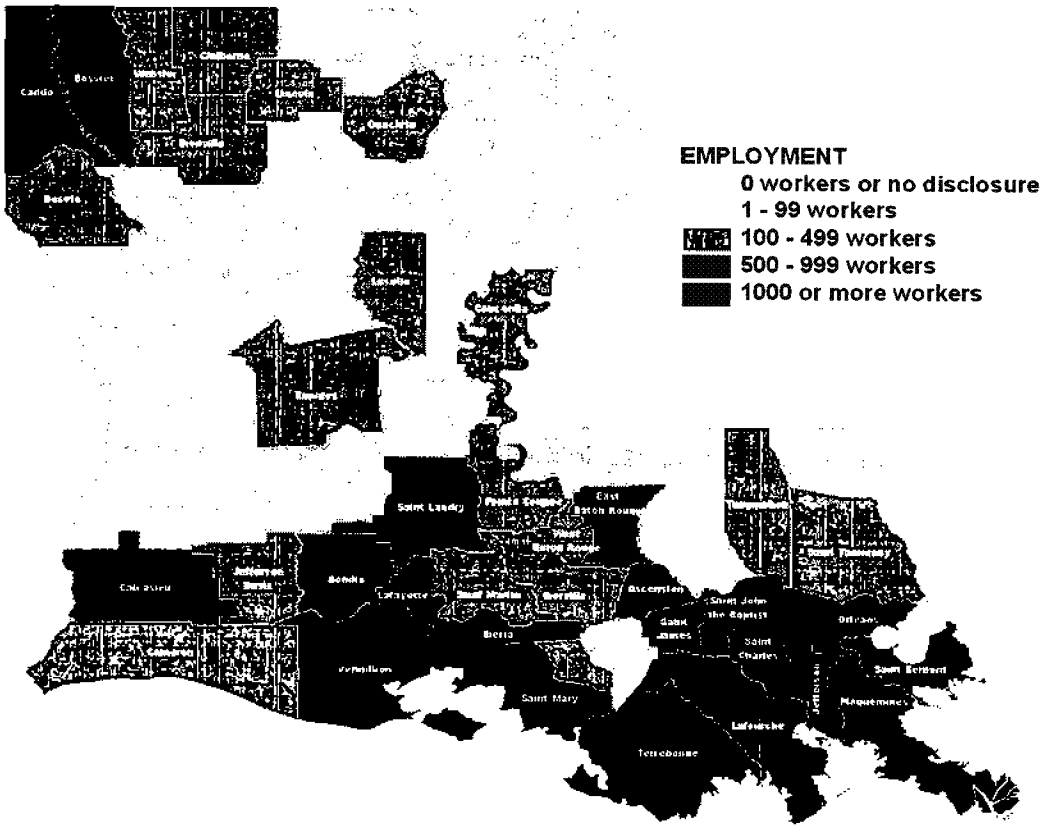
Parish	Units	Employment	Annual Wages
Acadia	45	742	$ 43,795,076
Allen	3	90	$ 6,036,364
Ascension	14	814	$ 56,678,332
Assumption	9	32	$ 2,271,676
Avoyelles	8	19	$ 440,164
Beauregard	8	70	$ 4,523,740
Bienville	16	167	$ 10,052,988
Bossier	39	1,265	$ 73,155,980
Caddo	206	2,413	$ 124,379,924
Calcasieu	62	3,762	$ 256,365,956
Caldwell	6	57	$ 3,704,524
Cameron	26	235	$ 15,521,964
Catahoula	7	47	$ 1,270,316
Claiborne	19	323	$ 15,348,264
Concordia	10	195	$ 10,696,824
Desoto	14	314	$ 16,687,036
E. Baton Rouge	55	2,339	$ 188,105,124
E. Carroll	4	3	$ 206,572
E. Feliciana	3	30	$ 1,961,976
Evangeline	8	24	$ 543,192
Franklin	3	19	$ 1,213,816
Grant	2	2	$ 29,024
Iberia	60	3,127	$ 201,898,428
Iberville	11	200	$ 9,020,768
Jackson	2	18	$ 1,807,424
Jefferson	83	2,315	$ 163,093,552
Jefferson Davis	14	256	$ 9,169,596
Lafayette	343	15,241	$1,075,400,448
Lafourche	52	752	$ 50,544,756
LaSalle	22	395	$ 16,538,736
Lincoln	18	177	$ 9,877,024
Livingston	7	25	$ 1,011,988
Madison	1	57	$ 2,074,388
Morehouse	3	16	$ 1,340,020
Natchitoches	8	49	$ 2,848,892
Orleans	83	3,731	$ 404,175,192

Ouachita	32	167	$ 10,243,516
Plaquemines	64	2,356	$ 158,928,400
Pointe Coupee	6	133	$ 8,656,328
Rapides	9	120	$ 8,253,612
Red River	1	12	$ 262,064
Richland	7	32	$ 1,528,184
Sabine	8	60	$ 1,716,572
St. Bernard	16	849	$ 84,723,156
St. Charles	9	1,381	$ 120,449,440
St. Helena	2	20	$ 1,132,976
St. James	9	883	$ 86,346,252
St. John	7	1,033	$ 75,065,004
St. Landry	25	896	$ 60,571,896
St. Martin	23	451	$ 23,139,420
St. Mary	54	1,391	$ 87,545,688
St. Tammany	38	264	$ 23,690,976
Tangipahoa	9	363	$ 13,920,584
Tensas	2	9	$ 240,380
Terrebonne	128	6,229	$ 402,691,696
Union	3	25	$ 671,072
Vermillion	47	1,137	$ 77,825,988
Vernon	6	77	$ 4,500,020
Washington	6	23	$ 1,274,924
Webster	23	463	$ 23,932,552
W. Baton Rouge	5	224	$ 16,682,424
W. Carroll	4	21	$ 1,108,968
W. Feliciana	3	51	$ 4,270,640
Winn	4	25	$ 1,513,496
Total	**1,824**	**58,016**	**$4,082,676,272**

Source: Louisiana Department of Labor

Map 1 provides a visual illustration of the distribution of energy jobs across the 64 parishes. From this map it appears there is some concentration of the energy sector in the southern portion of the state, but there are still several parishes in the northern and central regions with 500 or more energy employees. For example, Caddo Parish employed 2,413 people in these three industries, while Bossier Parish employed 1,265.

Map 1
Distribution Across Louisiana Parishes of Covered Employment in the Oil & Gas Extraction, Refining and Pipeline Industries: 2006



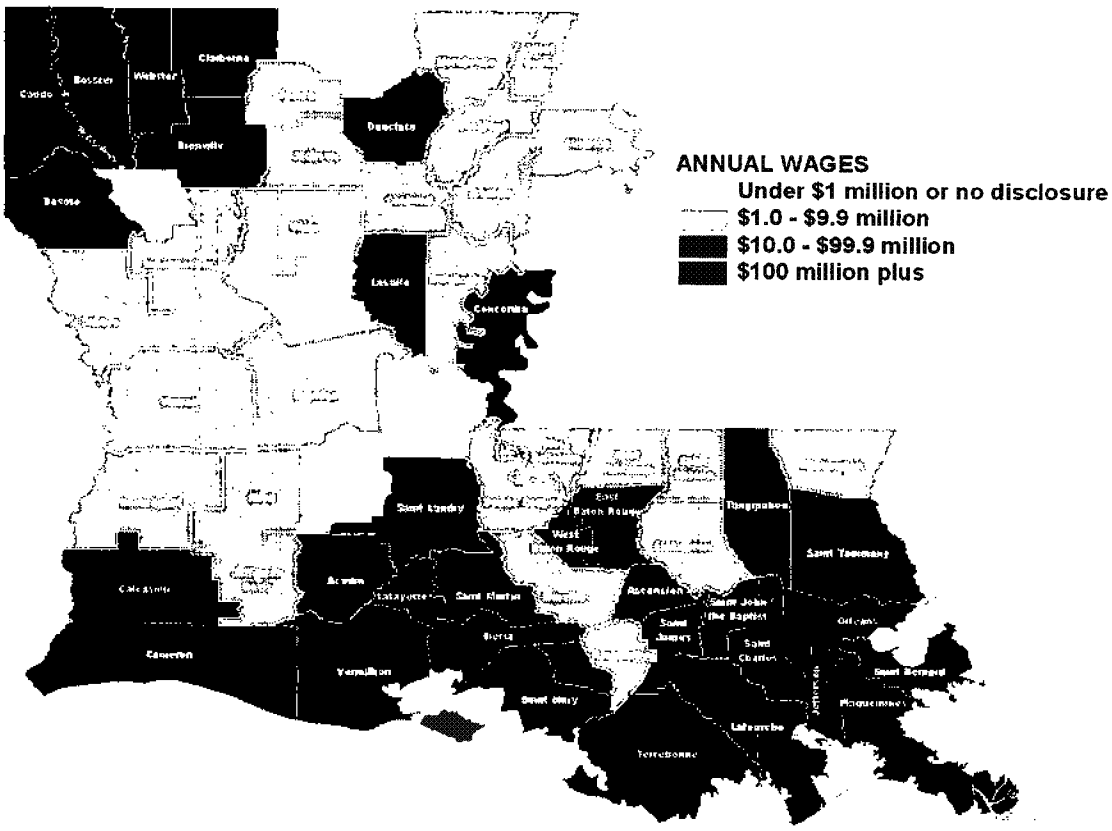
Distribution across the State: Annual Wages

The last column of Table 6 contains annual covered wage data by parish. Map 2 provides a visual illustration of the distribution of covered wages. These data detail what is in some cases a massive injection of earnings into a parish's economy. Note for example that in 2006:

- There were 57 parishes where energy wages exceeded $1 million a year.
- There were 10 parishes where energy wages exceeded $100 million.
- In Lafayette Parish energy wages exceeded $1 billion dollars, and in Orleans and Terrebonne Parishes, annual energy wages totaled over $400 million dollars.
- Equally important, **over $4 billion in direct wages was paid to workers in these energy sectors across all parishes in 2006**.

Clearly, the energy sector is vitally important to the economic health of these parishes. It is also important to note that these are only the **direct** effects of the energy sector on these economies. They do not include the additional multiplier or spillover effects that will be estimated later in this report.

Map 2
Distribution Across Louisiana Parishes of Covered Wages Earned in the Oil & Gas Extraction, Refining and Pipeline Industries: 2006



A Broader Income Measure: Value Added

Care has been taken in the material above to describe the wage data as pertaining to "covered" employment in the three energy industries. While this measure will fairly comprehensively include most wage and salary workers, it will not include wages and salaries paid to self employed individuals or unpaid family members---probably a small set within total wage and salary workers in these industries.

However, it is important to realize that wages and salaries are only one component of the income generated for Louisiana citizens by these industries. Not included in the tables above are other labor income, rental incomes, profits, and interest earnings.

One of the best measures of the **total income** created by an industry is its **value added**. Unfortunately, value added data by industry are rather scarce. One useful source is the various industrial censuses and surveys that are taken by the U.S. Bureau of the Census. The Bureau of the Census conducted an **Annual Survey of Manufactures** in 2005 which provides value added data for all of the state's manufacturing sectors for that year. Unfortunately, the Bureau does not conduct an annual survey of the mining sector. The agency does conduct a census of the mining sector every five years. The latest of these censuses is the Louisiana **Census of Mineral Industries: 2002.** Unfortunately, though there is a census of transportation specifically for Louisiana, value added data are not provided specifically for the pipeline industry.

Value added data for Louisiana's manufacturing industries and its extraction sector are provided in Table 7. Note that the manufacturing data are for 2005 and the oil and gas extraction data are for 2002. Without question comparable 2005 oil and gas extraction value added data would

be much higher than the 2002 figure shown in Table 7 because of the very large increase in oil and natural gas prices that occurred between 2002 and 2005.

Table 7

Value Added in Louisiana Manufacturing Sectors in 2005
And in Louisiana Oil and Gas Extraction in 2002

Sector	Value Added (Millions)	Percent of Manufacturing Total
Petroleum & Coal Products	***$34,293.00***	***49.1***
Chemicals	21,318.30	30.5
Food Manufacturing	2,903.90	4.2
Transportation Equipment	2,830.50	4.0
Paper Manufacturing	2,159.00	3.1
Fabricated Metals	1,713.40	2.5
Wood Products	806.90	1.2
Machinery Manufacturing	798.40	1.1
Plastics & Rubber Products	603.50	0.9
Nonmetallic Mineral Products	510.60	0.7
Primary Metals	453.00	0.6
Beverage & Tobacco	246.90	0.4
Printing & Related Products	224.40	0.3
Electrical Equipment	139.30	0.2
Textile Products	D	NA
Apparel Manufacturing	D	NA
Computers & Electronics	D	NA
Total Manufacturing	$69,910.60	100
Oil & Gas Extraction*	***$24,658.70***	***NA***

Source: 2005 Survey of Manufactures, U.S. Bureau of Census and 2002 Economic Census for Louisiana: Mining. D = not shown due to disclosure rules. NA = Not Applicable. *Data are for 2002. **The petroleum & coal products sector is 98 percent refining.**

There are several striking conclusions that arise from examining these data.

- Note in the bottom line of Table 7 **that nearly $25 billion in income was created by Louisiana's oil and gas extraction sector in 2002.** This figure exceeds that of every manufacturing sector in Louisiana except petroleum and coal products, and this figure

occurred three years earlier than the manufacturing data in Table 7. Given what happened to oil and natural gas prices and production between 2002 and 2005, **we suspect the value added for oil and gas extraction in 2005 is close to $47.5 billion**[9], an amount that substantially exceeds the sum of the value added of all manufacturing sectors except petroleum and coal products.

- **With nearly $34.3 billion in value added, petroleum refining is the largest source of income in Louisiana's manufacturing sector**. Indeed, almost half (49.1 percent) of Louisiana's value added is derived from the refining sector. While there are some coal mines in this category, 2002 Census of Manufactures data indicate that 98 percent of this value added is derived from refining.
- We estimate that **in 2005 the extraction and refining sectors combined created a remarkable $81.8 billion of income in Louisiana**.

III. Indirect or Multiplier Effects of the Industry

Earlier in this report it was mentioned that a helpful way to think of the energy sector's impact on the Louisiana economy was to think of the state as one large economic pond. Into this pond a rock is dropped labeled "energy industries". Section II of this report has provided estimates of the effect on the state of the initial splash made when the rock hit the pond---what has been referred to as the **direct** impacts of the industry.

Ripples in the Pond: The Multiplier Effect

However, when this rock hits it will also send out ripples to the edge of the pond---what are called the **multiplier** or indirect effects of the industry. For example, the extraction industry will

order offshore platforms from Louisiana fabricators such as J. Ray McDermott or Gulf Island Fabricators. This creates sales, income, and jobs in those firms, which in turn call their suppliers and order sheet steel, pipes, electrical generators, etc., which creates sales, income, and jobs in those firms, and so on. The employees that are hired in the extraction industry are paid wages and salaries which they then spend at car dealerships, grocery stores, eating establishments, etc., which generates new sales, income, and jobs there, etc., etc.

As it turns out, there is a useful tool for measuring these multiplier effects for the industries. It is called an **input-output (I/O) table**. Such a table has been constructed for the Louisiana economy by the Bureau of Economic Analysis (BEA) in the U.S. Department of Commerce. The BEA is the same governmental agency that is responsible for tabulating the gross domestic product statistics that are released on the economy quarterly.

To use the I/O tables we went to the 2005 Louisiana gross state product (GSP) statistics provided by the BEA. This agency estimated that in 2005, refining generated $16,780 million or 9.3 percent in Louisiana GSP. The BEA also reported that oil and gas extraction and support activities for mining added another $23,218 million to state GSP---12.9 percent of the total. These were the figures we inserted into the I/O tables. The multiplier effects on business sales, household earnings, and jobs in Louisiana are documented for the oil and gas extraction sector in Table 8, and the multiplier effects for the refining sector are shown later in Table 9.

Table 8

Direct and Multiplier Effects of Oil and Gas Extraction Sector: 2005

Sector	Direct and Multiplier Effects on:		
	Output (millions)	Household Income (millions)	Jobs
Agriculture, forestry, hunting and fishing	$110.8	$15.7	1,348
Mining	$23,081.5	$2,900.2	51,633
Utilities	$791.4	$144.6	1,721
Construction	$104.5	$39.1	1,155
Manufacturing	$2,469.7	$391.6	9,003
Wholesale trade	$846.9	$264.6	6,478
Retail trade	$1,095.2	$366.1	18,828
Transportation and warehousing	$863.4	$264.0	6,528
Information	$474.9	$125.1	2,463
Finance and insurance	$902.7	$221.1	6,299
Real estate and rental and leasing	$3,891.9	$322.1	10,252
Professional, scientific & technical services	$981.7	$451.4	9,850
Management of companies & enterprises	$1,759.5	$869.5	16,809
Admin. & waste management services	$345.3	$136.5	6,843
Educational services	$205.5	$91.0	3,629
Health care and social services	$1,314.9	$630.7	19,596
Arts, entertainment and recreation	$153.7	$62.6	2,673
Accommodation and food services	$586.7	$222.3	13,848
Other services	$574.9	$183.3	8,884
Households	$0.0	$15.7	2,056
Total	**$40,555.0**	**$ 7,717.2**	**199,895**

Source: Louisiana Input-Output Table, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C., 2004.

Ripple Effects of the Extraction Industry

Table 8 contains the estimated multiplier effects of the extraction industry from the I/O table. The I/O table enables one to estimate the impact of an industry on three key variables in the state: (1) sales at firms; (2) household incomes; and (3) jobs.

Any question about whether or not the extraction industry is a weak or strong engine for economic activity in Louisiana should be completely answered by the numbers in this table. By any reasonable measure, these spillover impacts are huge. **According to the I/O table, extraction industry activity in 1997 created nearly $40.6 billion in sales at Louisiana firms.**

Table 8 provides detail on how these sales are distributed across firms in different industries. The greatest beneficiary is the crude petroleum and natural gas industry---where the "rock" is, so to speak. But notice that multi-millions of dollars in sales are enjoyed by firms in many other sectors of the Louisiana economy. The **real estate industry** does particularly well ($3.9 billion) not only because the earnings created by this industry allows Louisianans to purchase homes and boosts the demand for shopping centers and other business establishments, but also because the extraction industry purchases a lot of property for drilling and production purposes. Over one billion dollars in sales are created in each of the following industries: manufacturing ($2.5 billion), management of companies & enterprises ($1.8 billion), health care ($1.3 billion), and retail trade ($1.1 billion).

For most citizens, the key numbers in Table 8 are the ones in the middle column---the ones dealing with household income. **According to the I/O table, the extraction industry pumped over $7.7 billion into the bank accounts of Louisiana citizens.** Persons that worked in the extraction industry earned the biggest fraction of this money---nearly $3.0 billion---but note that there were 14 sectors of the economy where household earnings exceeded $100 million in 2005.

Employees in the "management of companies & enterprises" sector were the second largest gainers ($869.5 million), followed by health services employees ($630.7 million) and professional, technical, and scientific workers ($451.4 million).

Finally, the last column of Table 8 provides the jobs impact of the oil and gas extraction sector. Here, the numbers are particularly impressive. According to the I/O table **a total of 199,895 jobs in Louisiana in 2005 could be traced directly or indirectly to the presence of the extraction industry**---and this is only from the portion of extraction activity associated with products exported from the state's borders. Not surprisingly, the bigger impacts again are in the principal industry---extraction (51,633 jobs)---which includes the direct job impacts as well.

But notice that thousands of jobs are supported in many other sectors of the Louisiana economy because of extraction's presence here. The health care and retail trade sectors especially benefit from these spillover impacts with 19,596 and 18,828 jobs created, respectively. In excess of 10,000 jobs are supported in each of the following industries: management of companies & enterprises (16,809), accommodations & food services (13,848), and real estate (10,252).

Ripple Effects of the Refining Industry

The existence of a mother lode of petroleum beneath our borders, and beneath the waters in our coastal Gulf of Mexico, has attracted to Louisiana an industry that operates immediately down stream from oil and gas production---refineries. Table 9 contains the I/O estimates of the spillover effects of this industry. It is important to note that we were careful not to double count the impact of this industry by including the extraction sector effects. That is why the "mining" sector in Table 9 contains zeros.

Table 9

Direct and Multiplier Effects the Refinery Sector in Louisiana: 2005

Sector	Direct and Multiplier Effects on:		
	Output (millions)	Household Income (millions)	Jobs
Agriculture, forestry, hunting and fishing	$75.5	$10.1	903
Mining	$0.0	$0.0	0
Utilities	$761.8	$129.2	1,580
Construction	$90.6	$33.6	991
Manufacturing	$19,594.0	$2,037.1	26,480
Wholesale trade	$1,169.6	$364.1	8,948
Retail trade	$706.4	$236.6	12,141
Transportation and warehousing	$1,250.1	$333.9	6,065
Information	$273.5	$70.5	1,406
Finance and insurance	$639.3	$154.4	4,431
Real estate and rental and leasing	$1,527.0	$107.4	4,359
Professional, scientific & technical services	$733.3	$320.5	7,603
Management of companies & enterprises	$573.9	$283.6	5,485
Admin. & waste management services	$323.9	$125.9	6,056
Educational services	$137.6	$60.4	2,401
Health care and social services	$805.4	$385.9	11,985
Arts, entertainment and recreation	$94.0	$38.6	1,657
Accommodation and food services	$421.2	$159.4	9,857
Other services	$463.1	$149.3	6,780
Households		$10.1	1,258
Total	**$29,640.2**	**$5,010.5**	**120,385**

Source:Louisiana Input-Output Table, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C., 2004

Note the bottom line of the first column of Table 9. **The existence of the refining industry in Louisiana created $29.6 billion in sales at Louisiana firms in 2005**. Clearly, this industry has had a very powerful economic effect on the Louisiana economy. Almost two-thirds of these sales

($19.6 billion) occurred in the manufacturing sector---a sector which includes the refinery sales in that year associated with "dropping the rock in the pond".

There are three other sectors where over $1 billion in sales can be traced back to the refining industry: real estate ($1.5 billion), transportation & warehousing ($1.3 billion), and wholesale trade ($1.2 billion). The transportation sector is a big winner because that sector that includes the pipeline industry, the next immediate downstream step in getting the refined product to the market. Note that there are six other sectors of the Louisiana economy where businesses can track over one-half billion in annual sales back to the presence of the refinery industry.

Column two of Table 9 reveals the impact of the refining industry on household incomes of Louisianans in 1997. **Over $5 billion in earnings were injected into the Louisiana economy through both the direct and indirect effects of the refining industry in that year**. Over a $2 billion of this income went to workers in the manufacturing sector where the refineries are located. Note that there were 12 other sectors in Louisiana that saw their workers' earnings boosted in excess of $100 million in 2005 through spillover effects of the refining industry.

The jobs impacts were equally impressive. According to the last column in Table 9, **there were 120,385 jobs in Louisiana in 2005 that could be traced directly or indirectly to the refining industry**. Some 26,480 of those jobs were in the manufacturing sector, which includes the direct jobs in the refining industry. In excess of 10,000 jobs were supported in transportation and warehousing (12,141) and health care (11,985), with the accommodations and food services sector coming close to that mark with 9,857 jobs traceable to the refining industry. There were six other sectors where more than 5,000 jobs were related to refining activities in 2005.

The Total Impact: More than "Ripples"

A large number of figures are contained in Tables 8 and 9. Table 10 presents a handy summary of the bottom line from those two tables. According to the I/O table, **the energy industry in Louisiana supports $70.2 billion in sales at firms in the state, over $12.7 billion in household earnings for Louisianans, and 320,280 jobs**. (Note: the sales impact number is slightly lower than the figure in the previous study due to a modeling error in the earlier work.) The term "ripple" hardly does justice to the magnitude of these impacts. These are more like small waves.

Table 10

Summary of Input-Output Results Across Industries: 2005

Industry	Direct and Multiplier Effects on:		
	Sales (millions)	Household Income (millions)	Jobs
Oil & Natural Gas Extraction	$40,555.0	$ 7,717.2	199,895
Refineries	29,640.2	5,010.5	120,385
Totals	**$70,195.2**	**$12,727.7**	**320,280**

Source: Louisiana Input-Output Table

Numbers in the "billions" are used so frequently in society today that it is difficult to get a grasp on what they really mean. Table 10 shows that the industry created $12.7 billion in household earnings in 2005. Perhaps a few comparisons will put these numbers in perspective.

- That is 15.4 percent of the total earnings of Louisianans in that year.[10]
- This number exceeds the total earnings of persons in each of every single parish in the state in 2005. The parish that came the closest to matching this total was East Baton Rouge Parish at $9.1 billion.[11]
- The **Statistical Abstract of the United States - 2002** contains a table listing the gross domestic product (GNP) of 66 countries in the world in 2000.[12] Four of those countries have gross domestic products smaller than $12.7 billion.

Table 10 shows that the jobs of 320,280 Louisianans are dependent on the presence of the energy industry in this state. By way of reference:

- This number represented 16.9 percent of non-agricultural wage and salary employment in 2005 in Louisiana.[13]
- Recall from Table 4 that 58,278 people are employed directly in the energy industries in the state. **This means the job multiplier for these two industries is 5.5**, a figure which includes the direct jobs. **This means for each job created in these two industries, 4.5 additional jobs are created elsewhere in the state.**

What these numbers reveal is that the economic impact of the energy industry is both huge and widespread. Clearly, it has been a powerful influence for economic growth in Louisiana.

IV. Tax Impacts of the Energy Industry

Our analysis of the employment and earnings impacts of these energy industries reveals an economic engine with extensive job and income creating powers. It should come as no surprise then

that both state and local governments enjoy a nice boost to their treasuries from the presence of the extraction, refining and pipeline industries in our state.

These industries influence tax payments to these two governmental units in two ways. First, there are the taxes paid **directly** by the industry to state and local governments in the form of corporate income and franchise taxes, sales taxes, royalties, rentals, bonuses, property taxes, fees, etc. However, there is a second major source of revenues generated by the industries' presence. Recall that in section III, it was determined that almost $12.7 billion in household earnings was created in the state both directly and through the multiplier effects of these industries' activities (see Table 10). State and local governments collect additional taxes via these earnings as well.

Direct State Taxes

Table 11 documents the direct state taxes and fees paid by the extraction, refining, and pipeline industries in fiscal year 2005-06 (FY06). **The energy industry paid $1,447,181,000 in state taxes in FY06 or about 14.4 percent of total taxes, licenses, and fees collected by the state.** Clearly, if this sector did not exist in Louisiana, our citizens would be able to do far less in terms of infrastructure, education, care for the poor, etc., than it is doing today. One point four billion dollars can correct a lot of social problems.

Table 11
Direct State Taxes Collected From Oil & Gas Extraction, Refining,
And Pipeline Industries: Fiscal Year 2005-06

Tax Category	Taxes Paid Thousands of Dollars
Severance Taxes	$709,270
Royalties, Rentals, Bonuses, Leases	497,870
Corporate Income Taxes	44,230
Corporate Franchise Taxes	57,257
Sales Taxes[1]	85,331[2]
Natural Gas Franchise Tax	4,450
Direct Fees to Dept. of Natural Resources	9,072
Royalties Paid to 8g Fund	30,768
Fees Paid to Dept. of Environmental Quality	8,933
TOTAL DIRECT TAXES PAID	**$1,447,181**
Total State Taxes, Licenses & Fees	$10,027,890
Total Direct Taxes as Percent of Total State Taxes, Licenses, Fees	**14.4%**

Source: Departments of Revenue, Environmental Quality, Natural Resources, and Legislative Fiscal Office. Total State Taxes, Licenses, and Fees do not include some agency receipts included in direct taxes paid by the industry.

[1]These represent sales taxes collected by the industry on sales it made. It does not reflect sales taxes paid by the industry to vendors when the industry made purchases.

By far the largest portion of these tax collections are mineral taxes and payments such as severance taxes, royalties, rentals, and bonuses. Counting payments to the 8g fund, these mineral taxes totaled over $1.2 billion or 86 percent of total direct taxes paid by this sector. The next biggest set of taxes was the corporate franchise and income taxes which came to $101.5 million in FY06.

Ad Valorem Taxes to Local Governments

From data tabulated by the Louisiana Tax Commission it is possible to derive a very conservative estimate of the property taxes collected from the energy industries by local governments in Louisiana. The phrase "very conservative" was used in that last sentence because the Tax Commission has reliable data on the assessed value of pipelines, drilling rigs, oil and gas surface equipment, and oil and gas wells from which property tax payments can be derived. In addition, a survey was conducted of the 16 largest refineries in the state to obtain their property tax payments in FY05.

However, what is not available are data on the assessed value of business furniture and fixtures, leased equipment, buildings and land, machinery and equipment owned, and inventories in all of the pipeline and extraction companies. This would no doubt be quite a large figure. Because these items cannot be isolated from the Tax Commission data, our property tax numbers for the industry will be at the very lower limit of total property taxes paid.

Table 12 contains a wealth of data on ad valorem taxes paid in Louisiana. This table shows total ad valorem taxes paid, how much went to schools, our "very conservative" estimate of taxes paid by the extraction, refining, and pipeline industries, and what percent of total ad valorem taxes in each parish was paid by these three energy industries.

Table 12

Ad Valorem Taxes Paid by Parish and Amount Paid
By Oil & Gas, Refining, and Pipeline Industries: 2005

Parish	Ad Valorem Taxes	Total School Taxes	Taxes Paid by Oil/Gas Refining, & Pipelines	Percent of Total Paid by Oil/Gas Refining, Pipelines
Acadia	$ 14,069,266	$ 6,141,022	$ 2,679,527	19.0
Allen	$ 10,615,008	$ 3,253,384	$ 970,839	9.1
Ascension	$ 52,390,916	$ 28,932,481	$ 484,662	0.9
Assumption	$ 9,011,756	$ 3,780,684	$ 957,557	10.6
Avoyelles	$ 4,510,072	$ 1,111,751	$ 108,058	2.4
Beauregard	$ 16,261,636	$ 7,186,083	$ 919,219	5.7
Bienville	$ 16,562,367	$ 9,633,215	$ 3,280,369	19.8
Bossier	$ 52,449,881	$ 28,505,130	$ 4,452,577	8.5
Caddo	$ 158,347,601	$ 88,177,768	$ 4,366,473	2.8
Calcasieu	$ 120,654,980	$ 37,460,082	$ 11,293,008	9.4
Caldwell	$ 3,551,176	$ 1,139,451	$ 118,586	3.3
Cameron	$ 24,885,886	$ 9,236,249	$ 6,352,124	25.5
Catahoula	$ 2,860,957	$ 867,615	$ 56,029	2.0
Claiborne	$ 7,125,374	$ 3,693,277	$ 2,361,859	33.1
Concordia	$ 9,607,947	$ 3,969,335	$ 107,386	1.1
Desoto	$ 22,395,351	$ 12,072,270	$ 4,231,580	18.9
E. Baton Rouge	$ 264,529,268	$ 108,481,330	$ 13,557,732	5.1
E. Carroll	$ 2,872,210	$ 404,019	$ -	0.0
E. Feliciana	$ 3,243,061	$ 1,211,328	$ 53,683	1.7
Evangeline	$ 8,244,080	$ 3,110,543	$ 667,524	8.1
Franklin	$ 4,322,250	$ 684,598	$ 11,404	0.3
Grant	$ 4,567,183	$ 1,346,557	$ 52,989	1.2
Iberia	$ 22,751,499	$ 10,872,684	$ 1,692,029	7.4
Iberville	$ 26,995,293	$ 12,335,878	$ 1,079,303	4.0
Jackson	$ 10,849,146	$ 3,107,754	$ 5,271,461	48.6
Jefferson	$ 241,089,570	$ 52,402,789	$ 1,488,399	0.6
Jefferson Davis	$ 16,468,540	$ 5,591,870	$ 1,584,052	9.6
Lafayette	$ 84,408,344	$ 34,009,661	$ 870,175	1.0
Lafourche	$ 53,224,301	$ 19,081,547	$ 6,509,115	12.2
LaSalle	$ 7,190,102	$ 2,137,458	$ 669,236	9.3
Lincoln	$ 21,376,748	$ 10,847,612	$ 1,169,741	5.5
Livingston	$ 28,734,445	$ 8,945,245	$ 149,658	0.5
Madison	$ 4,151,791	$ 960,534	$ -	0.0
Morehouse	$ 9,559,808	$ 5,319,047	$ 143,372	1.5
Natchitoches	$ 14,713,335	$ 6,458,834	$ 77,608	0.5

Orleans	$ 314,318,880	$ 97,713,552	$ -	0.0
Ouachita	$ 68,878,892	$ 31,001,841	$ 448,783	0.7
Plaquemines	$ 37,492,865	$ 13,996,097	$ 14,203,178	37.9
Pointe Coupee	$ 13,801,776	$ 4,485,014	$ 1,418,668	10.3
Rapides	$ 53,554,139	$ 24,138,295	$ 1,383,673	2.6
Red River	$ 3,549,617	$ 2,331,661	$ 127,895	3.6
Richland	$ 5,818,981	$ 2,666,368	$ 30,219	0.5
Sabine	$ 7,883,953	$ 3,868,427	$ 267,143	3.4
St. Bernard	$ 23,867,311	$ 10,544,297	$ 11,939,992	50.0
St. Charles	$ 92,181,123	$ 45,635,520	$ 14,170,727	15.4
St. Helena	$ 4,025,777	$ 634,558	$ 240,897	6.0
St. James	$ 29,193,555	$ 11,516,093	$ 11,581,442	39.7
St. John	$ 26,659,357	$ 9,771,623	$ 11,710,160	43.9
St. Landry	$ 30,312,195	$ 13,439,894	$ 1,205,073	4.0
St. Martin	$ 15,562,434	$ 5,212,184	$ 1,619,053	10.4
St. Mary	$ 29,218,843	$ 11,455,555	$ 3,073,601	10.5
St. Tammany	$ 144,858,854	$ 68,313,412	$ -	0.0
Tangipahoa	$ 26,515,041	$ 4,756,942	$ 123	0.0
Tensas	$ 3,526,799	$ 1,288,839	$ 67,712	1.9
Terrebonne	$ 45,305,132	$ 6,948,124	$ 8,337,345	18.4
Union	$ 5,930,299	$ 2,185,983	$ 615,772	10.4
Vermillion	$ 21,006,046	$ 8,653,157	$ 5,084,938	24.2
Vernon	$ 11,787,620	$ 5,433,774	$ 3,294,400	27.9
Washington	$ 14,488,874	$ 7,399,931	$ 47,858	0.3
Webster	$ 15,728,690	$ 8,348,854	$ 2,681,794	17.1
W. Baton Rouge	$ 17,466,122	$ 6,024,840	$ 1,125,738	6.4
W. Carroll	$ 2,805,329	$ 1,153,178	$ -	0.0
W. Feliciana	$ 19,363,432	$ 3,664,193	$ 18,052	0.1
Winn	$ 5,405,651	$ 2,356,267	$ 154,859	2.9
Total	**$ 2,442,098,768**	**$ 947,407,558**	**$ 172,636,429**	**7.1**

Source: Louisiana Tax Commission & industry survey

According to these data, the extraction, refining, and pipeline industries paid at least $172.6 million in ad valorem taxes to local governments in 2005. In 31 of the 64 parishes, ad valorem taxes paid by the industries exceeded $1 million. In 12 parishes, the figure exceeded $5 million. The distribution of high-tax-collection parishes for these industries correlates closely with the distribution of earnings and employment shown back in Maps 1 and 2.

Plaquemines Parish, with both refineries and huge exploration activities, was in the top spot at $14.203 million. A close second in this ranking was St. Charles Parish with $14.170 million in property taxes paid. This parish contains two large refineries. Those very capital intensive industries have an abundance of property subject to the ad valorem tax. St. James, St. John the Baptist, St. Bernard, Calcasieu, and East Baton Rouge Parishes, which also contain large refineries, each collected over $11 million in property taxes from these industries.

It is apparent from the numbers in the last column of Table 12 that some parishes would face some very serious financial problems if for some reason these energy industries vanished from their borders. In nine of the parishes over one-fifth of property taxes came from energy firms. In 21 of the parishes over ten percent of property taxes came from energy firms. In St. Bernard Parish one-half of ad valorem taxes came from energy firms. As seen at the bottom of the last column in Table 12, the energy industry paid an estimated 7.1 percent of all property taxes collected by local governmental agencies in 2005---up from 5.7 percent in 1999.

Some readers may be surprised at the numbers in Table 12. They believe that the 10-year industrial tax exemption (TYITE) protected these industries from paying much in the way of property taxes. First of all, the TYITE applies for the most part only to **manufacturing firms**. Thus, while it would apply to refineries, it is not available to pipelines or to the extraction industry.

Secondly, it is a **ten year** exemption. At the end of that 10-year period, the property rolls off the exemption schedule and onto the taxable rolls. Table 13 provides data by parish on the value of TYITE in force as of December, 2005 and the portion of that which applies to refineries. Of the $32.6 billion in exemptions in force as of that date, about $5.4 billion, or 16.7 percent of the total, was for refineries.

Table 13

Total Value of 10-Year Industrial Tax Exemptions in Force in 2005, Value for Refineries, and Amount of Refinery Exemptions Expiring over 2005-09

Parish	Ten-Year Contracts in Force in 2005	Oil Refining Contracts in Force in 2005	Oil Refining Contracts Expiring, 2005-09
Acadia Parish	$670,248,106	$0	$0
Allen Parish	$21,858,400	$0	$0
Ascension Parish	$4,520,585,388	$5,859,285	$0
Assumption Parish	$87,602,668	$0	$0
Avoyelles Parish	$10,810,882	$0	$0
Beauregard Parish	$284,399,079	$2,554,388	$0
Bienville Parish	$39,219,785	$0	$0
Bossier Parish	$121,169,960	$16,867,092	$12,556,856
Caddo Parish	$1,374,180,935	$52,389,708	$23,900,787
Calcasieu Parish	$4,646,002,731	$2,034,644,231	$1,210,047,492
Caldwell Parish	$179,902	$0	$0
Cameron Parish	$739,101,557	$0	$0
Catahoula Parish	$4,103,668	$0	$0
Claiborne Parish	$3,911,011	$0	$0
Concordia Parish	$4,610,188	$0	$0
De Soto Parish	$549,765,670	$0	$0
East Baton Rouge Parish	$3,095,415,468	$956,759,404	$587,443,031
East Carroll Parish	$24,125	$0	$0
East Feliciana Parish	$6,485,439	$0	$0
Evangeline Parish	$357,538,112	$0	$0
Franklin Parish	$3,024,696	$0	$0
Grant Parish	$11,588,045	$0	$0
Iberia Parish	$154,910,563	$0	$0
Iberville Parish	$2,594,745,914	$0	$0
Jackson Parish	$41,382,051	$0	$0
Jefferson Parish	$681,519,756	$0	$0
Jefferson Davis Parish	$229,090	$0	$0
Lafayette Parish	$197,379,375	$0	$0
Lafourche Parish	$176,368,950	$0	$0
La Salle Parish	$2,015,677	$0	$0
Lincoln Parish	$215,742,372	$0	$0
Livingston Parish	$38,537,963	$0	$0
Madison Parish	$1,819,051	$0	$0
Morehouse Parish	$179,199,427	$0	$0
Natchitoches Parish	$472,848,963	$0	$0
Orleans Parish	$494,200,822	$598,732	$0
Ouachita Parish	$1,403,755,302	$0	$0
Plaquemines Parish	$396,653,793	$187,083,448	$139,246,160
Pointe Coupee Parish	$186,145,289	$0	$0
Rapides Parish	$370,394,925	$0	$0

Red River Parish	$13,514,254	$0	$0
Richland Parish	$7,662,919	$0	$0
Sabine Parish	$107,425,138	$0	$0
St. Bernard Parish	$334,327,305	$249,324,230	$133,708,480
St. Charles Parish	$4,103,543,110	$914,088,030	$344,176,674
St. Helena Parish	$14,276,216	$0	$0
St. James Parish	$862,926,101	$429,623,420	$90,461,534
St. John the Baptist Parish	$821,095,194	$523,617,098	$146,178,978
St. Landry Parish	$124,045,685	$18,771,940	$11,446,525
St. Martin Parish	$45,240,237	$0	$0
St. Mary Parish	$351,799,398	$0	$0
St. Tammany Parish	$7,620,132	$0	$0
Tangipahoa Parish	$41,298,824	$0	$0
Tensas Parish	$163,192	$0	$0
Terrebonne Parish	$49,465,460	$0	0
Union Parish	$55,502,764	$0	$0
Vermilion Parish	$2,871,724	$0	$0
Vernon Parish	$3,194,781	$0	$0
Washington Parish	$352,653,887	$0	$0
Webster Parish	$156,258,849	$23,468,699	$20,470,861
West Baton Rouge Parish	$641,721,352	$26,865,945	$10,068,318
West Carroll Parish	$2,480,286	$0	$0
West Feliciana Parish	$264,772,394	$0	$0
Winn Parish	$110,147,542	$0	$0
State Total	**$32,633,681,842**	**$5,442,515,650**	**$2,729,705,696**

Source: Louisiana Department of Economic Development

The last column of Table 13 indicates that exemptions on nearly $2.8 billion of refinery property will expire over the five-year period from 2005-09. Calcasieu Parish, in particular, will experience a taxable property bonanza during this period as over $1.2 billion in refinery property becomes taxable. In East Baton Rouge Parish over one-half billion dollars in new property will come on the taxable rolls over 2005-09, and in St. Charles Parish the figure is approximately one-third of a billion dollars.

The local taxes paid by these three energy industries that are listed in the third column of Table 12 are "very conservative" for two reasons. They include only **parish** property taxes. They do not include (1) **municipal property taxes** nor (2) **local sales taxes** paid by these industries when they buy products in the parishes. Unfortunately, neither of these taxes paid to local governments are tabulated by industry group.

After this review of the direct state and local taxes paid by these industries it is logical to ask, "Is this level of taxes in some sense 'fair'?" Fair, of course, is in the eye of the beholder, but at least one objective measure of the level of fairness is to compare taxes on these industries to taxes imposed in other states. LSU's Center for Energy Studies has actually conducted such a study comparing tax burdens on the extraction industry across the 11 largest producing states. Their conclusion: "...the differences in state and local tax bills among states that compete for E&P activity are not significant enough to be a major determinant of E&P activity, given the magnitude of other uncertainties involved in such decisions."[14] This same Center compared the level of taxation between refineries in Louisiana versus those in the top refining capacity state---Texas. Their principal finding was "...the offset of higher sales and corporate taxes in Louisiana by lower property taxes, and vice versa in Texas, results in nearly total tax equivalence in the two states.[15] This suggests that for both the extraction and refining industries, the tax rates are competitive with neighboring states.

A second measure of "fairness" might be to compare an industry's share of state taxes to its share of earnings created in the state. According to Table 11, the energy industry produced 14.4 percent of total state taxes collected. According to Table 4, total wages in this industry was $4.2

billion in 2006, which is about 6.4 percent of total state wage and salaries.[16] By this measure, the industry is paying significantly more than its fair share of state taxes.

These measures should clearly be considered when discussions arise about additional taxes on the industry. In addition, there is another very crucial issue to consider. The refinery industry sells its product in an international market. When it sells, say gasoline, it is in direct competition with refineries in Mississippi, Illinois, Texas, and other countries. This competition effectively **prevents the industry from shifting any new taxes forward to its customers**. Thus, if Louisiana alone levies a processing tax on its refineries, the Louisiana refineries will have to absorb that tax within their income statements. The obvious incentive is to not only stop expanding in Louisiana, but also to start the process of moving operations to states with a lower tax burden. Most citizens would not like to witness the demise of an industry with the earnings and job creation power of refineries that was described earlier in this report.

Indirect Taxes Generated

The taxes detailed in Tables 11-12 are only those for which firms in these industries have to write out a check. But the presence of the extraction, refining, and pipeline industries generated $12,727,700,000 in household earnings in 2005 through both the direct salaries paid and indirect earning produced through the multiplier effects (see Table 10). These earnings are subject to the state income tax. When spent, these household earnings generate gasoline taxes, sales taxes (both state and local), beer/soft drink/tobacco taxes, etc.

According to the Legislative Fiscal Office, the state of Louisiana collects seven cents in revenues (excluding mineral revenues) for every dollar earned by households in the state. **Thus the**

extraction, refining, and pipeline industries---through the direct and indirect creation of household earnings---were responsible for generating an estimated $890,939,000---a billion dollars---in tax collections for the state of Louisiana in FY06.

What about local taxes paid via these household earnings? Local governments collect approximately 4.4 cents for every dollar earned by a Louisiana household. **Thus, the $12.7 billion in household earnings generated by the three energy industries through direct and multiplier effects added approximately $560,018, 800---over half a billion dollars---to the coffers of local governments in FY06.**

State and local tax dollars in Louisiana support a wide variety of social goods and services, such as elementary, secondary, and higher education, highways, the charity hospital system, economic development efforts, tourism promotion, public safety, and many others. If the extraction, refining, and pipeline industries suddenly vanished from our borders, the provision of these social goods and services would have to be dramatically retrenched. The impact of these three industries goes far beyond just jobs and incomes.

V. Technological Changes

What is truly exciting about this industry are the **technological changes** which are dramatically improving the success rate in wildcat drilling and significantly boosting the total recovery from a field once the petroleum is found. Among these advances are **3-D and 4-D** (i.e., tracking a field with 3-D over time) **seismic** techniques which allow explorers to see what is below the surface much more efficiently. Back in the early 80s, drillers might have to drill 10 wells to hit

a producer; using 3-D and 4-D, only three wells are needed. Thus, the risk factor in this business has been significantly reduced. Also, recent advances in computing power have made seismic surveys easier and more accurate, allowing firms to see pockets of oil and natural gas at great depths. This advancement was crucial in the discovery of the lower tertiary formation associated with the deep water "Jack" Field.

Once the fields are discovered, **horizontal drilling** permits much more oil to be lifted from a discovery than in the past. For example, using older seismic and drilling techniques exploration companies were able to lift only about 35 percent of the oil in place. Adding 3-D and horizontal drilling raised that percentage to 40-50 percent. Then using 4-D there is a further improvement to 65-75 percent.

A third major technological advance has been in **drilling and producing in great water depths**. Deepwater drillships are now capable of drilling in water depths in excess of 10,000 feet. In 2006, Chevron successfully completed a record setting production test in the Gulf of Mexico in its "Jack Field". This well was drilled in 7,000 feet of water and more than 20,000 feet under the ocean floor.

Ingenious developments in production platforms have further enhanced the ability of exploration companies to plum the depths of the very productive Gulf of Mexico. In 1996, Shell Oil put in place the Mars platform in 2,940 feet of water, another new record for production platforms. Mars is a **tension leg platform** (tlp) rather than a fixed leg platform. Mars is basically tethered to the ocean bottom by very large metal tendons. From ocean bottom to the crown of the platform it was the tallest man-made structure ever built, equivalent to two Sears Towers end-to-end.

The Mars field is projected to yield 700 million barrels of oil, the largest domestic find since Alaska's Prudhoe Bay discovery 30 years ago.

Serious advancements are being made in drill pipes---a crucial step if drilling is to take place in very deep waters and at very great depths. The Department of Energy as announced the development of IntelliPipe, a drill pipe with built in telemetry that can operate thousands of feet below the surface via a coupler embedded in connections between pipe sections. The coupler permits data to be sent across small gaps between pipe sections through a cable attached to an inner pipe wall. The DOE also announced the development of a new composite drill pipe made from carbon fiber resins that are lighter, stronger, and more flexible than steel.[17] Composite tendons have also been developed which are used to tether tension leg platforms and spars to the ocean floor. These too are lighter and stronger than tendons made with steel.[18]

ExxonMobil announced recently another technological advancement that will help speed up the drilling process. The optimization process---deemed the "Fast Drill Process"---uses real-time computer analysis of the drilling system's energy consumption, which helps improve the management of factors that determine the drilling rate, such as weight on the drill bit, rotary speed, and torque.[19]

Another interesting aspect of exploration in the Gulf is how **productive the fields are**. We have already referenced the projected output from Mars. By way of comparison, the onshore record for a single gas well is one in the Sweet Lake Field near Lake Charles, producing 50-55 million cubic feet (mmcf) per day. One well in the Gulf last year was producing at three times that rate. Oil production rates are also huge and the oil is flowing unusually fast. In many of these fields the oil is

in **sheet sand** as opposed to sand stone. The former is much more porous, so the oil flows out easier and faster.

In early 2002, the Minerals Management Service approved the use of **Floating Production Storage Offloading** (FPSOs) vessels in the Gulf of Mexico. Rather than using a platform to produce oil, with pipelines tied back to the shore, these FPSOs lift the oil to the surface to a large ship. The oil is stored there and then offloaded on to a barge which can take the oil ashore to the port paying the highest price. These FPSOs are typically "dynamically positioned." That is, there are thrusters on the sides of the ship controlled by satellites that keep the ship within a small movement area, even in hurricane force winds.

Lastly, at least one major technological change is enabling pipe to be laid much more efficiently in the Gulf---the **spool ship**. A spool ship designed by Global Industries has a 110 foot diameter spool of pipe on it that it simply reels off the pipe into the ocean. Welding the spool on shore is much cheaper than welding at sea, and a strand of pipe that took eight days to lay, may now take only one day.

Given this review, it is easy to see why there is considerable optimism about the future of the exploration sector in Louisiana.

VI. Summary and Conclusions

This study is an update of a study done for Mid-Continent Oil and Gas in 1996 entitled, "The 'Energy Sector': A Giant Economic Engine for the Louisiana Economy." Our conclusions from this review of the impact of the extraction, refining, and pipeline industries can be summarized in a series of bullet points:

- Louisiana, through the luck of natural resource distribution, is the nation's **number one producer of crude oil and the number two producer of natural gas** among the 50 states.

- Louisiana ranks **number two among the states in petroleum refining** capacity.

- There are over **83,000 miles of pipelines** transporting crude petroleum and natural gas within the state and in its offshore area of the Gulf of Mexico.

- Through both their direct and multiplier effects **these three industries supported $70.2 billion in sales in Louisiana firms, generated over $12.7 billion in household earnings for Louisianans, and supported 320,280 jobs in the state in 2005.** The $12.7 billion in earnings represented 15.4 percent of total earnings in Louisiana in that year. At least four countries listed in the **Statistical Abstract of the U.S.** have smaller gross domestic products.

- On average **the job multiplier for these two industries was 5.5**. That is, for every job created in these sectors 4.5 additional jobs are created in other sectors in the state. The job multiplier for the oil and gas extraction industry is about 3.9 and for the very capital-intensive refinery industry it is about 11.7.

- These three industries **directly paid over $1.4 billion in state taxes and fees** in FY06, or about 14.4 percent of total state taxes, licenses, and fees collected.

- A very conservative estimate is that these three industries paid **$172.6 million in ad valorem taxes to local governments** in the state in 2005. In 31 of the state's 64 parishes, these ad valorem taxes exceeded $1 million. In 12 parishes the number exceeded $5 million.

- Through the $12.7 billion in household earnings generated by these three industries, **state government was able to collect an estimated $890,939,000 in taxes in FY06.**

- The $12.7 billion in household earnings generated by these three industries added approximately **$560,018,800---over one half billion dollars---to the treasuries of local governments** in FY06.

- In 2006, there were **58,278 workers employed** in the extraction, pipeline, and refining industries---a number approximately equivalent to the 2005 population of Acadia Parish, the 19th most populous parish in the state. Fifty-four of Louisiana's 64 parishes had total covered employment smaller than this number in 2005.

- These three industries paid nearly **$4.2 billion in wages** for Louisiana households in 2006---a figure equivalent to 6.4 percent of total covered wages in the state that year.

- In the third quarter of 2006, the average weekly wage in Louisiana's manufacturing sector was $984. **In refining it was 59 percent higher at $1,567 and the extraction sector paid $1,804 weekly---83 percent higher than the average in manufacturing. Weekly wages in**

the pipeline industry were $1,345---37 percent higher than the average manufacturing wage.

- **Energy jobs and earnings are found in all of Louisiana's 64 parishes in 2006**. There were 14 parishes where more than 1,000 workers were employed in these three industries. In Lafayette Parish (the highest employment parish), 15,241 workers were directly employed in these energy sectors.

- Value added is a broader measure of the total income created directly in an industry. In 2002 (latest data available), **Louisiana's oil and gas extraction sector produced over $24.6 billion in total income**. That figure exceeds the **sum** of all the state's manufacturing sectors except petroleum and coal products. We have roughly estimated the extraction sector's value added in 2005 (when energy prices were much higher than 2002) to be about $47.5 billion.

- The refining sector's value added in 2005 was a huge $34.3 billion. That figure exceeds the **sum** of all the state's other manufacturing sectors.

This report began with the statement: "It is the engine that makes the difference." For Louisiana, the presence of the extraction, refining, and pipeline industries have indeed made all the difference. The energy industry, and its accompanying multiplier effects, has been a powerful engine for economic growth in Louisiana.

APPENDIX A

The Impact of and Recovery from Hurricanes Katrina and Rita

Hurricanes Katrina and Rita cut a swath right through the heart of the Gulf of Mexico (GOM) offshore oil and natural gas production activity. Consider these facts about this important energy-producing region:

- Within this area are 819 manned platforms and another 4,000+ unmanned platforms;
- This is the location of LOOP---the Louisiana Offshore Oil Port---the nation's only superport. This port is where very large crude carriers offload their cargoes of crude oil to be placed in underwater pipelines connected to receiving terminals onshore. From there, the crude is typically pushed farther through pipelines to refineries;
- Approximately 1.5 mmbd of crude are produced in the GOM. This represents about 29 percent of total U.S. production;
- Approximately 10 bcfd of natural gas is produced in this region, or about 19 percent of total U.S. natural gas production.

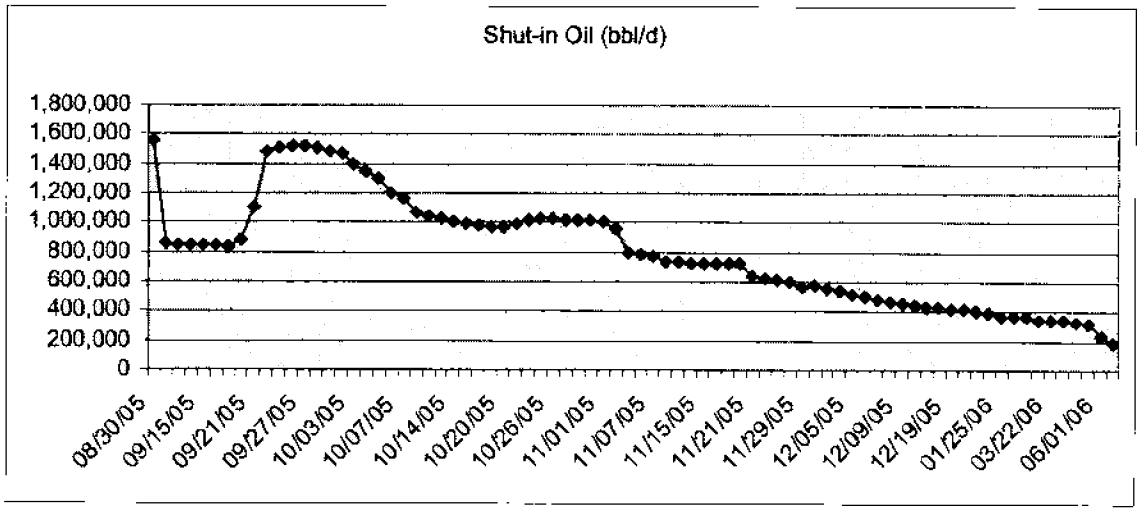
The Impact of the Hurricanes on Production

When a hurricane like Katrina is poised to enter this region of the GOM, energy companies begin the process of shutting down the offshore platforms and evacuating personnel. How many platforms are evacuated depends on the path of the storm.

Figures A-1 and A-2 track the shut-in statistics for crude oil and natural gas produced in the GOM. Shut-in oil and natural gas refers to output that was being produced but is not now because of damaged platforms, pipelines or onshore receiving units. In the case of Katrina, 95.2 percent of the crude oil and 88 percent of the natural gas production was shut-in by August 30, 2005. By September 9th, the shut-in rates had dropped to about 56-58 percent for oil and about 33-37 percent for natural gas. Then the improvement stabilized. When Rita appeared, because it made landfall

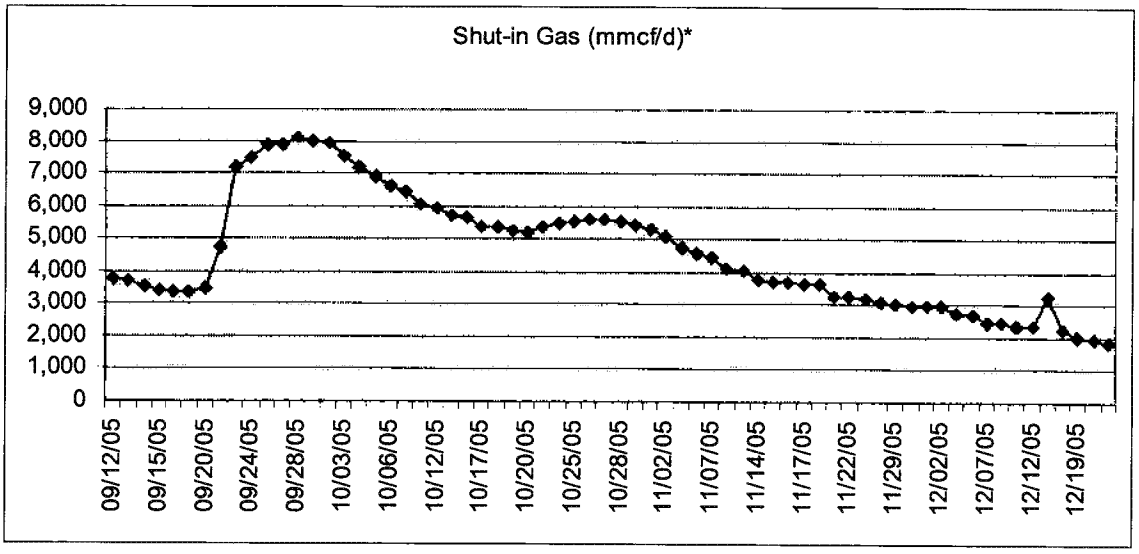
further to the west and more into the center of the GOM production region, 100 percent of crude and 80 percent of natural gas was shut-in. By early January 2006, 26.5 percent of crude oil and 18.1 percent of natural gas remained shut-in. **The latest, and last, Minerals Management Service report on shut-in data in the Gulf showed that as of June 6, 2006, 12 percent of the oil and 9.3 percent of natural gas production remained shut-in.**

Figure A-1
Shut-in Oil Production in the Gulf of Mexico



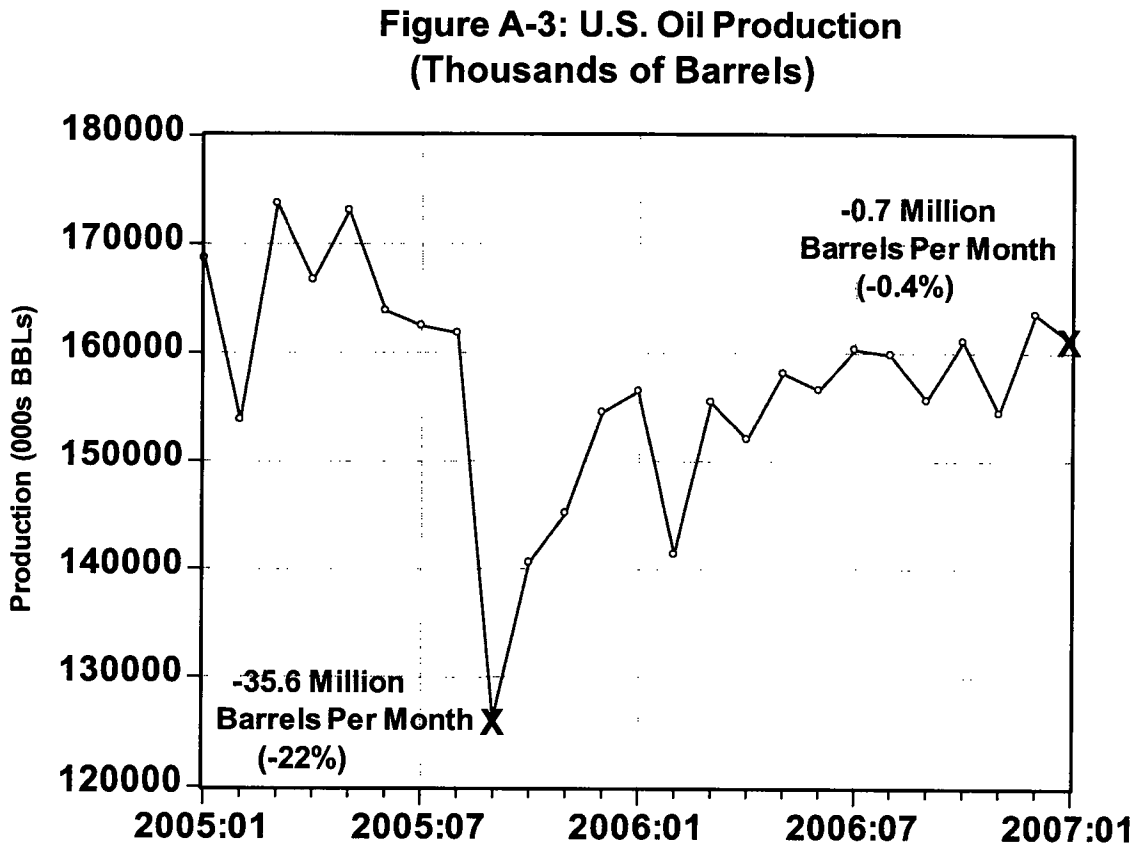
Source: Minerals management Service

Figure A-2
Shut-In Natural Gas Production in the Gulf of Mexico



Source: Minerals management Service

Though shut-in data were not provided by the MMS after June 2006, we do have another indicator of progress in restoring the damage in the Gulf caused by these two storms. Figure A-3 illustrates what has happened to U.S. oil production just prior to and since the storms. Note that U.S. oil production dropped dramatically in the two months after the storms hit, declining a total of about 35.6 million barrels per month. There was a significant increase in the two months just after the storms as many previously shut-in wells were inspected and authorized to become active again. Then there has been the steady period of gains as repair work continued in the Gulf. **As of the end of December, production had recovered to the point of being down only 0.7 million barrels per month or 0.4 percent below the pre-storms peak.**



Why the Sustained, and Higher, Shut-In Rate?

In the case of both of these storms, return to total production was not very swift. In fact, the shut-in rate for Katrina initially stabilized almost twice as high as was the case for Hurricane Ivan in 2004. For example, crude oil production after Ivan stabilized at about 480,000 bd while the comparable figure for Katrina was closer to 850,000 bd.

Why wasn't crude and natural gas production immediately restored to their pre-hurricane levels? Think of this production occurring in three primary zones---(1) offshore platforms, (2) underwater pipelines, and (3) onshore receiving units. Each of these suffered damages that needed repair before production could be restarted.

Zone 1: Offshore Platforms. One reason that production was not immediately restored was because of damage to offshore platforms. As seen in Table A-1, Hurricanes Katrina and Rita---because they were stronger storms that hit more in the heart of the GOM production region---caused far more damage to these platforms than did Ivan which hit farther east.

Table O&G-1
Impact on Offshore Platforms of
Hurricanes Ivan, Katrina, and Rita

Impact	Ivan	Katrina	Rita
Destroyed	7	47	66
Damaged	20	20	32

Source: Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy, www.doe.gov, October 7, 2005, p.2.

Of the platforms destroyed by Katrina and Rita, most were older platforms that were built under pre-1988 upgraded design standards, and were located on the "shelf" (shallow waters), where the wells were fairly depleted and producing little product. Still, there were a number of the larger, deepwater platforms that suffered major damages. For example, as a result of Katrina there were four deepwater platforms that accounted for about 10 percent of offshore crude oil production that were severely damaged. Among these were Mars, Ursa, Mansa, and West 143---all owned by Shell Oil Company. Among the casualties of Rita was Chevron's Typhoon TLP (tension leg platform) which was turned upside down by the storm and this $1.2 billion investment was determined to be a total loss.

It is actually quite a testimony to the engineering skills of the people working in this industry that only 165 of nearly 5,000 platforms were destroyed or badly damaged. This is especially so considering that the Naval Research Lab measured some waves at 131 feet tall during these storms.

That so many platforms survived in this basically unprotected environment speaks volumes about technological advancements in this industry.

Zone 2: Underwater Pipelines. Damage to underwater pipelines was one of the greatest concerns to the energy sector because checking and repairing these pipelines requires some of the scarcest resources in the oil patch---divers, boats, and power. Underwater mudslides caused by Ivan wiped out 102 pipeline systems. A total of 655 pipelines (about 20,000 miles worth) were destroyed by Katrina and Rita.

The good news is that this pipeline damage occurred in 2005 and not prior to the late 1990s. Prior to that time, pipelines were repaired by taking a pipe laying barge into the Gulf, welding strands of pipe together on board, and feeding the pipe into the water. Today, this same function can be done 10-15 times faster using a **spool ship**. A spool ship has a large reel on the back of the ship around which is wound a string of pipe that has been welded together onshore---a much more efficient process than welding on the water. Once out in the Gulf, the pipe is then unwound off the spool and fed into the Gulf, at great savings in time and money.

Zone 3: The Onshore Receiving Units. Once the crude oil and natural gas reach shore, these fuels are received by refineries, gas processing plants and onshore pipelines. The first two sets were the most problematic. Katrina caused the closure of eight **refineries**. Within two weeks after the storm passed, four of these had power restored and were refining crude oil. Four others not only lost power but were also damaged and flooded. Three were in Louisiana: (1) the 350,000 bd ConocoPhillips Refinery; (2) the 183,000 bd Chalmette Refinery, and the 122,000 bd Murphy Oil Refinery. These three units are located in the heavily flooded areas of St. Bernard and Plaquemines

Parishes. With the exception of Murphy Oil Refinery, all were open by the end of 2005 and Murphy Refinery opened later in 2006.

Rita closed three other refineries in the Lake Charles MSA: (1) Citgo (324,000 bd); ConocoPhillips (239,400 bd), and (3) Calcasieu (30,000 bd). These three units had mostly minor wind damage and power loss but fortunately, no flooding. They were all three back up by November 2005.

What received little attention from the press was the damage to **gas processing plants** in the region. Natural gas produced offshore tends to be high in hydrogen sulfide and water. The processing plants refine these impurities out. Three were located near the mouth of the Mississippi River and were severely damaged by both wind and flood. Dynergy's plant in Venice is so badly damaged that some pipelines were rerouted from it to other processing plants---again, the spool ship technology made such re-routing financially feasible. Together these three plants process about 2.8 bcfd of natural gas. Rita added another six plants to these three, though these six were not as badly damaged as the Katrina victims. One plant badly damaged by Rita was the Henry Hub, the center for natural gas trading.

Oil Spills from Katrina & Rita

Another remarkable testament to the technological advancements in the extraction industry is the oil spill record as a result of these two huge storms. In their report "Setting the Record Straight", the Mineral Management Service had the following to say about spills post-storms:

- As of January 25, 2007, MMS identified 125 spills of petroleum products totaling 16,302 barrels that were lost from platforms, rigs, and pipelines on the Federal Outer Continental Shelf (OCS) as a result of damages from Hurricanes Katrina and Rita in 2005.
- Those spills did not occur due to loss of control of the producing wells.

- There were no major spills (2,381 barrels per spill or greater) according to USCG official standards. The USCG defines offshore spills of less than 10,000 gallons (238 barrels) as "MINOR"; offshore spills of 10,000 to 99,999 gallons (238 to 2,380 barrels) as "MEDIUM"; and offshore spills of 100,000 gallons, (2,381 barrels) and greater as "MAJOR".

- According to a report on "Oil in the Sea" from the National Academy of Sciences (1995), far more oil enters the ocean from natural, underwater seeps than from offshore production platforms. In fact, the seeps introduce about 1700 barrels of oil a day into U.S. marine waters, which is about 150 times the amount from oil and gas activities.

- Over the past 20 years, less than .001 percent of the oil produced in U.S. state and federal waters have been spilled.

- The loss of oil from the Federal OCS wells themselves was minimal due to the successful operation of the safety valves that are required by the Minerals Management Service (MMS) to be installed on every well at least 100 feet below the ocean floor.

- All facilities on the Outer Continental Shelf in areas threatened by the hurricanes are "shut in" prior to a storm's arrival, meaning that pipelines are closed and platforms are secured for heavy weather.

- Oil losses were mostly limited to the oil stored on platforms that were damaged or oil contained in individual segments of pipelines that were damaged.

- There were no accounts of spills from facilities on the OCS that reached the shoreline, or oiled birds or mammals, or involved any large volumes of oil to be collected or cleaned up.

- The five largest spills were estimated to be between 1,000 barrels and 2,000 barrels. Two of the five spills may have only been a couple of hundred barrels. These five spills represent only 4 percent of all the spills but total 8,428 barrels and 52 percent of the total spillage.[20]

The bottom line is these two huge storms came right through the heart of the offshore oil and gas industry and there were virtually no significant spills offshore. One policy implication is that the United States is the only country on earth that restricts oil and gas exploration in some of its offshore area (the East Coast, West Coast, West Coast of Florida, and coastal areas of Alaska). What

residents along these coasts fear the most is coastal damage from oil spills. The aftereffects of Katrina and Rita should go a long ways towards dispelling those fears.

ENDNOTES

[1]Oil and Gas Journal, June 11, 2007, p. 69.

[2]Oil and Gas Journal, December 18, 2006, p. 62.

[3]Email from Michelle Barnes in the Center for Energy Studies at LSU, July 2, 2007.

[4]Ibid.

[5] Note that the category "support activities for mining" contains companies that drill for oil and provide service work (seismic, well servicing, etc.) to the industry.

[6]www.Laworks.net. Go to LMI.

[7] www.bea.gov/bea/regional/reis/drill.cfm.

[8]www.Laworks.net/Downloads/LMI.

[9] This figure was estimated by estimating total revenues from oil extraction (oil price times oil production) and natural gas revenues (gas prices times gas production) in both 2002 and 2005 and calculating the total increase in revenues over this time period. The result is a 92.8 percent increase.

[10]Regional Economics Information System, Bureau of Economic Analysis, CD-ROM, April 2007.

[11]Ibid.

[12]Statistical Abstract of the United States: 2002, 122nd Edition, p. 833.

[13]www.bls.gov.

[14]Allan G. Pulsipher, Robert H. Baumann, and Wumni O. Iledare, "Overall Tax Levels Similar Across 11 Producing States," Oil and Gas Journal, October 11, 1993, p. 89.

[15]Allan G. Pulsipher and Robert H. Baumann, Louisiana's Petroleum Refining Industry," Center for Energy Studies, Louisiana State University, February, 1993, p. 36.

[16]Wage and salary disbursements in 1999 (latest year available) were $53.6 billion. Regional Economic Information System, Bureau of Economic Analysis, May 2001, CD-ROM.

[17]Oil and Gas Journal, July 18, 2005, p.17.

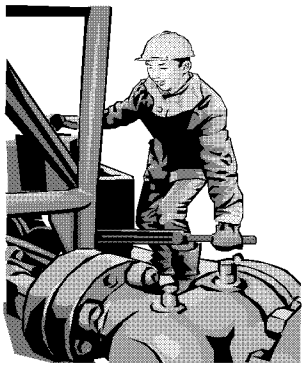
[18]Oil and gas Journal, August 15, 2005, p. 39.

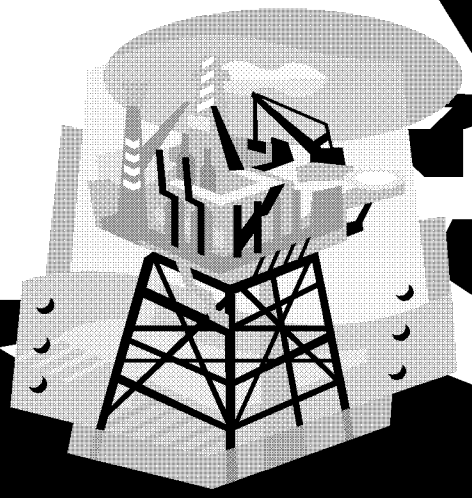
[19]Go Gulf Magazine, 2005, p. 24.

[20]www.mms.gov. Go to SettingtheRecordstraight/Estimatedoil%20SpillsAsAResultofHurricanesKatrinaand Rita.

The Energy Sector:

Still A Giant Economic Engine For The Louisiana Economy





By Loren C. Scott, Ph.D.

September 2007

EXECUTIVE SUMMARY

This study is an update of a study done for Mid-Continent Oil and Gas in 2002 entitled, "The 'Energy Sector': A Giant Economic Engine for the Louisiana Economy." Our conclusions from this review of the impact of the extraction, refining, and pipeline industries can be summarized in a series of bullet points:

- Louisiana, through the luck of natural resource distribution, is the nation's **number one producer of crude oil and the number two producer of natural gas** among the 50 states.

- Louisiana ranks **number two among the states in petroleum refining** capacity.

- There are over **83,000 miles of pipelines** transporting crude petroleum and natural gas within the state and in its offshore area of the Gulf of Mexico.

- Through both their direct and multiplier effects **these three industries supported $70.2 billion in sales in Louisiana firms, generated over $12.7 billion in household earnings for Louisianans, and supported 320,280 jobs in the state in 2005.** The $12.7 billion in earnings represented 15.4 percent of total earnings in Louisiana in that year. At least four countries listed in the **Statistical Abstract of the U.S.** have smaller gross domestic products.

- On average **the job multiplier for these two industries was 5.5**. That is, for every job created in these sectors 4.5 additional jobs are created in other sectors in the state. The job multiplier for the oil and gas extraction industry is about 3.9 and for the very capital-intensive refinery industry it is about 11.7.

- These three industries **directly paid over $1.4 billion in state taxes and fees** in FY06, or about 14.4 percent of total state taxes, licenses, and fees collected.

- A very conservative estimate is that these three industries paid **$172.6 million in ad valorem taxes to local governments** in the state in 2005. In 31 of the state's 64 parishes, these ad valorem taxes exceeded $1 million. In 12 parishes the number exceeded $5 million.

- Through the $12.7 billion in household earnings generated by these three industries, **state government was able to collect an estimated $890,939,000 in taxes in FY06.**

- The $12.7 billion in household earnings generated by these three industries added approximately **$560,018,800---over one half billion dollars---to the treasuries of local governments** in FY06.

- In 2006, there were **58,278 workers employed** in the extraction, pipeline, and refining industries---a number approximately equivalent to the 2005 population of Acadia Parish, the 19th most populous parish in the state. Fifty-four of Louisiana's 64 parishes had total covered employment smaller than this number in 2005.

- These three industries paid nearly **$4.2 billion in wages** for Louisiana households in 2006---a figure equivalent to 6.4 percent of total covered wages in the state that year.

- In the third quarter of 2006, the average weekly wage in Louisiana's manufacturing sector was $984. **In refining it was 59 percent higher at $1,567 and the extraction sector paid $1,804 weekly---83 percent higher than the average in manufacturing. Weekly wages in the pipeline industry were $1,345---37 percent higher than the average manufacturing wage.**

- **Energy jobs and earnings are found in all of Louisiana's 64 parishes in 2006**. There were 14 parishes where more than 1,000 workers were employed in these three industries. In Lafayette Parish (the highest employment parish), 15,241 workers were directly employed in these energy sectors.

- Value added is a broader measure of the total income created directly in an industry. In 2002 (latest data available), **Louisiana's oil and gas extraction sector produced over $24.6 billion in total income**. That figure exceeds the **sum** of all the state's manufacturing sectors except petroleum and coal products. We have roughly estimated the extraction sector's value added in 2005 (when energy prices were much higher than 2002) to be about $47.5 billion.

- The refining sector's value added in 2005 was a huge $34.3 billion. That figure exceeds the **sum** of all the state's other manufacturing sectors.

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For Immediate Release: **Contact: Nicolette Nye**

Friday, June 11, 2010 (202) 347-6900

NOIA Member Companies Feel Impacts of Drilling Moratorium,

Applauds Landrieu's Efforts to Save Jobs

WASHINGTON, DC – The decision to halt deep water exploration activity and the uncertain status of shallow water operations in the Gulf of Mexico is already having profound impacts on the offshore energy industry, and these impacts will only worsen the longer the pause continues. Since the Gulf region depends on the offshore industry for thousands of jobs and billions of dollars in revenue, the impacts of the "one size fits all" moratorium will add further job loss and economic woes to a region already suffering from these same hits to its seafood and tourism industries.

Fearing that the blanket drilling moratorium "could exacerbate, rather than alleviate, the impacts of this spill upon both our economy and our environment," U.S. Senator Mary Landrieu of Louisiana has sent a letter to the President requesting that the blanket moratorium on drilling be lifted. In a June 11 letter the Senator wrote, "The immediate impacts to the economy are devastating enough: idling the 33 rigs currently permitted to drill in the deepwater Gulf would immediately impact employment for roughly 38,000 crewmen, deck hands, engineers, welders, ROV operators, caterers, helicopter pilots, and others who operate and service these vessels. That's like closing 12 large motor vehicle assembly plants in one state, all at once".

NOIA strongly echoes the Senator's sentiments and applauds her efforts to look at the full scope of interwoven industries and communities that make the Gulf of Mexico economy strong. We plan to continue working with the Senator to ensure that jobs and revenues in the region aren't an unintended casualty of the response to the Deepwater Horizon spill.

NOIA member companies are feeling the impact of the blanket moratorium, and several share their stories below:

Aker Solutions

- Aker Solutions is a leading global provider of engineering and construction services, technology products and integrated solutions to the offshore oil and gas industry.
- The moratorium will impact Aker Solutions' offshore related operations on the Gulf Coast which include about 750 employees in Texas and Alabama.

- The company has already started to refocus their efforts to international projects that hopefully can replace some of the void.
- Some of their offshore services work is coming to a halt already; and unless they can refocus that workforce, including vessels and tools, to international projects they are at risk of losing jobs in Texas over the next few months.
- Manufacturing jobs in Alabama are at risk from early 2011, as the backlog runs out with no new orders of deepwater subsea equipment coming in.
- Engineering jobs in Houston are at risk of being reduced, but may be able to be refocused internationally.
- In summary, part of their workforce will be affected directly or indirectly by the moratorium. Their goal is to try to mitigate this by securing international projects.

ATP Oil & Gas Corporation

- ATP Oil & Gas Corporation is an independent oil and gas producer headquartered in Houston, Texas.
- The moratorium has caused ATP to stop the drilling of a natural gas development well (the Mississippi Canyon 305 # 2 well) and release the deepwater drilling rig. The MC 305 #2 well would have produced approximately 40 million cubic feet of gas per day with a very small amount of condensate.
- Additionally, ATP will not be able to drill and complete two development wells (MC 941 #4 well and MC 942 # 2 well) using a drilling configuration with two blowout prevention (BOP) stacks, one on the seafloor and one at the surface. This is a new design for improved safety, a first in the US Gulf of Mexico and one that the company planned 3 years ago.
- These wells were originally planned to be completed and placed on production in 2010 at a combined rate of approximately 14,000 barrels of oil per day using a platform drilling rig attached to the ATP Titan platform.
- As a result of the moratorium and the suspension of operations, ATP expects to incur additional costs of approximately $30,000,000 that otherwise would not have been spent.
- Additionally, ATP will defer revenues of more than $1,000,000 per day as a result of not being able to drill and complete the development wells planned for 2010.

Bollinger Shipyards, Inc.

- Bollinger Shipyards, Inc. and its affiliated companies are the leading provider of quality marine construction, repair and conversion products, servicing both the military and commercial marine industry. They also own and operate a fleet of Offshore Supply Vessels that service the deepwater activities of the OCS. Family owned and operated since 1946, Bollinger Shipyards employs 3,000 people.

- "In the 64 years of our existence, we have never been faced with such an uncertain future. This moratorium has created an environment leaving Bollinger Shipyards no choice but to downsize our company thereby eliminating good paying jobs."

Broadpoint, Inc.

- Broadpoint is a 27 year old privately held company with a 100 employees based along the Gulf Coast with its headquarters in Houston and a Network Operations Center in New Orleans with an additional office in Lafayette, LA.

- Their operations are 99% directly related to providing telecommunication services in the Gulf of Mexico through satellite communications and the ownership and management of a 100,000 square mile GSM/GPRS/Edge network operating in the Gulf.

- Broadpoint and its clients will be adversely affected as a result of this shutdown and it will directly affect their ability to operate. Reliable communications is essential for the health and safety of individuals in the Gulf of Mexico.

CapRock Communications, Inc.

- CapRock Communications is a 29 year old privately held company employing 750 employees globally with headquarters in Houston and operational offices in Lafayette and New Orleans, LA.

- Their operations are related to providing satellite communication solutions that enable the oil and gas industry to operate more efficiently in today's environment, serving the communications needs of rig owners, service companies and operators working on drilling rigs, production platforms and other assets in the Gulf.

- They currently have over 50 field service and operations personnel supporting clients in the Gulf of Mexico and this shutdown will directly impact their ability to maintain operations.

- Their field service personnel install and manage communication systems onboard drilling rigs and energy support vessels throughout the Gulf of Mexico. As their customers are now required to cease or limit their operations, the amount of business their company receives and the work they have for their personnel in the region significantly declines.

- They will be forced to redeploy personnel to different regions or support them in finding other opportunities.

C&C Technologies, Inc.

- C & C provides a wide range of survey and mapping services for the land and offshore oil and gas industry, the telecommunications industry and the U.S. government.
- C&C expects to lay off approximately 10 employees as a result of the moratorium, and will not be hiring the dozen or so workers they expected to hire in the coming months.

Cobalt International Energy, Inc

- Cobalt International Energy, Inc. (Cobalt) is an independent oil and gas exploration and production company focused on the deepwater U.S. Gulf of Mexico and the deepwater offshore Angola and Gabon.
- Cobalt was formed in 2005 and is headquarters in Houston, Texas with an operational base in Port Fourchon, L.A. for their deepwater GOM exploration activities, and an (soon to be established) operational base in Luanda Angola for their Angola exploration activities. At present Cobalt have some 65 employees and 25 consultants.
- The GOM Drilling Moratorium has significantly impacted Cobalt's GOM deepwater 2010 exploration and appraisal program from a multitude of perspectives:
    - Cobalt's exploration and appraisal drilling program for the remainder of 2010 (3 wells of which 1 had all of the necessary permits/insurance in place) is now on hold. Thus, the exploration drilling rigs, services, vessels, tools, people etc. that were contracted to support the drilling programs have been released.
    - Cobalt invoked the Force Majeure provision in a recent rig contract, thus the company is paying capital for a period of time while the rig is idle as well as the associated key services (e.g. vessels). Cobalt has also experienced unanticipated legal costs as a result.
    - There is a follow-on impact in the form of delay in executing their 2011 exploration and appraisal program (approx 9 wells) in the deepwater GOM. Thus the program has been extended further/delayed into the future which will affect the timing and thus cash flow they would have anticipated sooner.
    - As the deepwater GOM is a key focus area for Cobalt in light of the position established (some 227 deepwater leases) in the last few years, the

company stock has been significantly impacted (dropped 40%) amid concerns regarding the GOM Drilling Moratorium; the value of the company has thus been impacted by some $1.5 billion in the market.

- Cobalt will shift its capital spending program and resources to their West Africa business. Resumption of their investment program in the United States is completely dependent on the termination of the GOM Drilling Moratorium.

Davis-Lynch, Inc.

- Davis-Lynch is a privately owned company founded in 1947 that manufactures, sells, and services down-hole equipment for the offshore oil and gas industry.
- They employed over 300 people in 2009, but reduced their workforce by approximately 100 people as a result of an industry downturn. In 2010 with an upswing in business they have recalled some of the people released in 2009.
- Approximately 20% of their business is dedicated to providing products and services to the offshore drilling industry in the Gulf of Mexico, with a large portion associated with water depths greater than 500 feet.
- The moratorium leaves them no alternative other than to implement another reduction in their workforce in locations including Lafayette, LA; Houston, TX; and Corpus Christi, TX.

Delmar Systems, Inc.

- Delmar Systems, Inc. is a leader in offshore mooring, providing mooring solutions for the offshore oil and gas industry.
- Delmar is a 42 year old privately held company employing 300 employees based along the gulf coast with a technical office in Houston and large operational base at Port Fourchon, LA.
- Operations are 100% directly related to mooring deepwater semi-submersibles in the Gulf of Mexico and as a result of this shutdown, will directly affect ability to operate.
- Thirteen of the thirty three deepwater wells involved "moored" or anchor semi-submersible rigs owned by four drilling contractors.

Heerema Marine Contractors

- Heerema is a 48 year old privately held Dutch company who has been working in the Gulf of Mexico for 32 years and has installed approximately 75% of all deep water facilities currently producing in the Gulf. They own and operate three of the four largest construction vessels in the world and the US Gulf has always been a significant part of the revenue stream of their company.

- They currently employ 50 people between offices in Houston, TX and an operational base at Port Fourchon, LA.

- Their U.S. operations are directly related to installation of new facilities and sub sea infrastructure in the deep water Gulf of Mexico and as a result of this shutdown, their business future is in a state of uncertainty here in the US.

Laborde Marine, LLC

- Laborde Marine is a family-owned business headquartered in New Orleans which owns and/or operate 21 vessels, all built in U.S. shipyards; while employing over 300 people with a $14 million annual payroll.

- They invested over $150 million to build or acquire thisfleet.

- The moratorium is essentially telling them to "park" their vessels for six months.

- For Laborde to move internationally, they would have to compete with vessels built in foreign ship yards at a much lower cost and often subsidized by foreign governments.

- "The moratorium may well be the death-knell for U.S. businesses engaged in the energy service sector."

J. Ray McDermott, Inc.

- J. Ray McDermott is a Houston headquartered Company with approximately 1,200 employees in Morgan City and New Orleans, Louisiana and Houston, Texas.

- The company provides engineering and construction services to the offshore energy sector worldwide as well as in the Gulf of Mexico through the engineering, construction and offshore installation of the infrastructure necessary to develop and produce offshore oil and gas fields.

- According to the company, the shutdown of deepwater drilling in the Gulf of Mexico will create a domino effect (movement of rigs and other equipment out of the area, loss of jobs, etc.) that will no doubt affect the timing of future developments and the economic recovery of the region for years to come.

Oceaneering International, Inc.

- Oceaneering is a global oilfield provider of engineered services and products, primarily to the offshore oil and gas industry, with a focus on deepwater applications.

- Oceaneering reduced its 2010 earnings forecast on expectations that the U.S. government's moratorium on deepwater drilling activity in the Gulf of Mexico will hurt demand for its deepwater services.
- The oilfield-services and products company said it expects the moratorium will cut second-half earnings by 45 cents a share and is now looking for 2010 profit of $2.80 to $3.10 a share.
- Nearly one-quarter of Oceaneering's remotely-operated vehicles operate in the Gulf, with about half of those in drilling support services.
- The company anticipates some early terminations and revised contracts.
- The stock is down 27% this year amid concerns about the Gulf oil spill.

Otto Candies, LLC

- Otto Candies is a marine transportation company started 68 years ago with a fleet of 40 vessels.
- 500 of their 600 U.S.-based employees could be impacted by the moratorium, with some possibly needing to be relocated to Brazil, Mexico, or West Africa.

Stone Energy Corporation

- Stone Energy Corporation is an independent oil and natural gas exploration and production company headquartered in Lafayette, Louisiana, with additional offices in Houston, Texas and Morgantown, West Virginia.
- Stone has already experienced a 40% drop in the value of their company in anticipation of punitive legislation and regulation.
- They will be forced to reduce jobs as will other operators.
- Stone has a shelf platform rig at MC 109 which has been shut down, wasting over $10 million dollars by having an idle rig sitting there doing nothing.
- This cash cost will be far exceeded by the lost revenue of the five wells being drilled from the facility.
- The 5 wells were anticipated to each produce approximately 1,000 barrels per day, assuming $70 per barrel, resulting in $350,000 per day in potential lost revenues.
- Stone also has a half-dozen exploratory wells that will be delayed a year or more. This hurts their ability to sustain reserves to convert to future production and growth.
- One rig that was going to be used in this exploratory program, the Deepwater Mariannas, is expected to be leaving the Gulf for opportunities in foreign countries.

Southern States Offshore, Inc.

- Southern States Offshore, Inc. is a privately held company incorporated in 1996 and wholly owning and operating seven offshore service and supply vessels, six of which were built and delivered in Louisiana and Alabama in 1998, 2005, 2007, 2009 and 2010 at a cost of 48 million dollars.

- They employ 53 mariners who live in Texas, Louisiana and Alabama; with an office staff in Houston, Texas of ten employees, all Texas residents.

- According to the company, their employees, their families, the ship yards, vendors, tax authorities, etc. that depend on this industry to pay their mortgage, health care bills, cloth their families and send their children to school all are at risk of losing everything.

Zupt, LLC

- Zupt is a privately owned, international service and manufacturing company specializing in the integration and application of inertial technologies to onshore and offshore survey and positioning services to make operations more efficient.

- Were under contract with an operator who was 8 to 12 days away from completing a well and Zupt was preparing to conduct the metrology survey work when the operator was told to shut the well. No metrology survey was conducted, an immediate loss of revenue.

- One of Zupt's engineers was laid off due to the near term lost revenue.

- During the moratorium the company is forced to seek work in West Africa and the North Sea, and if unsuccessful they anticipated being out of business within four months.

###

NOIA is the only national trade association representing all segments of the offshore industry with an interest in the exploration and production of both traditional and renewable energy resources on the nation's outer continental shelf. The NOIA membership comprises more than 250 companies engaged in business activities ranging from producing to drilling, engineering to marine and air transport, offshore construction to equipment manufacture and supply, telecommunications to finance and insurance.

Nguyen, Ngoc B

From: Juvkam-Wold, Hans [juvkam-wold@pe.tamu.edu]
Sent: Friday, June 18, 2010 2:50 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Lindsay,

I will not be able to attend the meeting on Monday morning, but plan to call in.

Hans

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a meeting at 10:00am EASTERN Monday, June 21, 2010 as a follow-up to Tuesday's conference call regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. For those of you who are unable to join this meeting in person, there will be a call-in option for you to participate remotely. This meeting/conference call is limited to the people who have received this email. Please let Kallie Hanley (cc'd) and me know by 3:00pm EASTERN tomorrow if you will be able to participate. Please be sure to indicate whether you will be attending in person or via phone. We will reach out to you with arrival instructions or a conference call number following our receipt of your participation.

Thank you,

Lindsay Dubin
Special Assistant
Office of Scheduling and Advance
The U.S. Department of the Interior
p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Friday, June 18, 2010 3:43 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10
Attachments: Presentation to Secretary of Interior - Rev2 (2).pptx

Attached is a current draft of a power point presentation we are preparing for the Secretary and staff for Friday's meeting. It is till be reviewed by the Group of 8, but I thought I would send it ahead in the event any of you would want to look at it ahead of Monday's meeting.

Kenneth E. (Ken) Arnold
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3031 Shadowdale
Houston, TX 77043
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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why we are here
2. Comments on the Secretary of Interior, May 27, 2010 Report "Increased Safety Measures for Energy Development on the Outer Continental Shelf"
3. Comments on the NTL NO2010-NO5, June 8, 2010
4. Measures that should be taken now to improve safety in the GOM

Why we are here

- We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.
- We are here nor are we going to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.
- We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.
- This is the time we all need to work together and we understand the job at hand.
- This is not the time to punish the innocent nor further harm the public's interest .

The good

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 2500 in over 1000 feet of water.

Last major incident resulting in oil coming assure in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

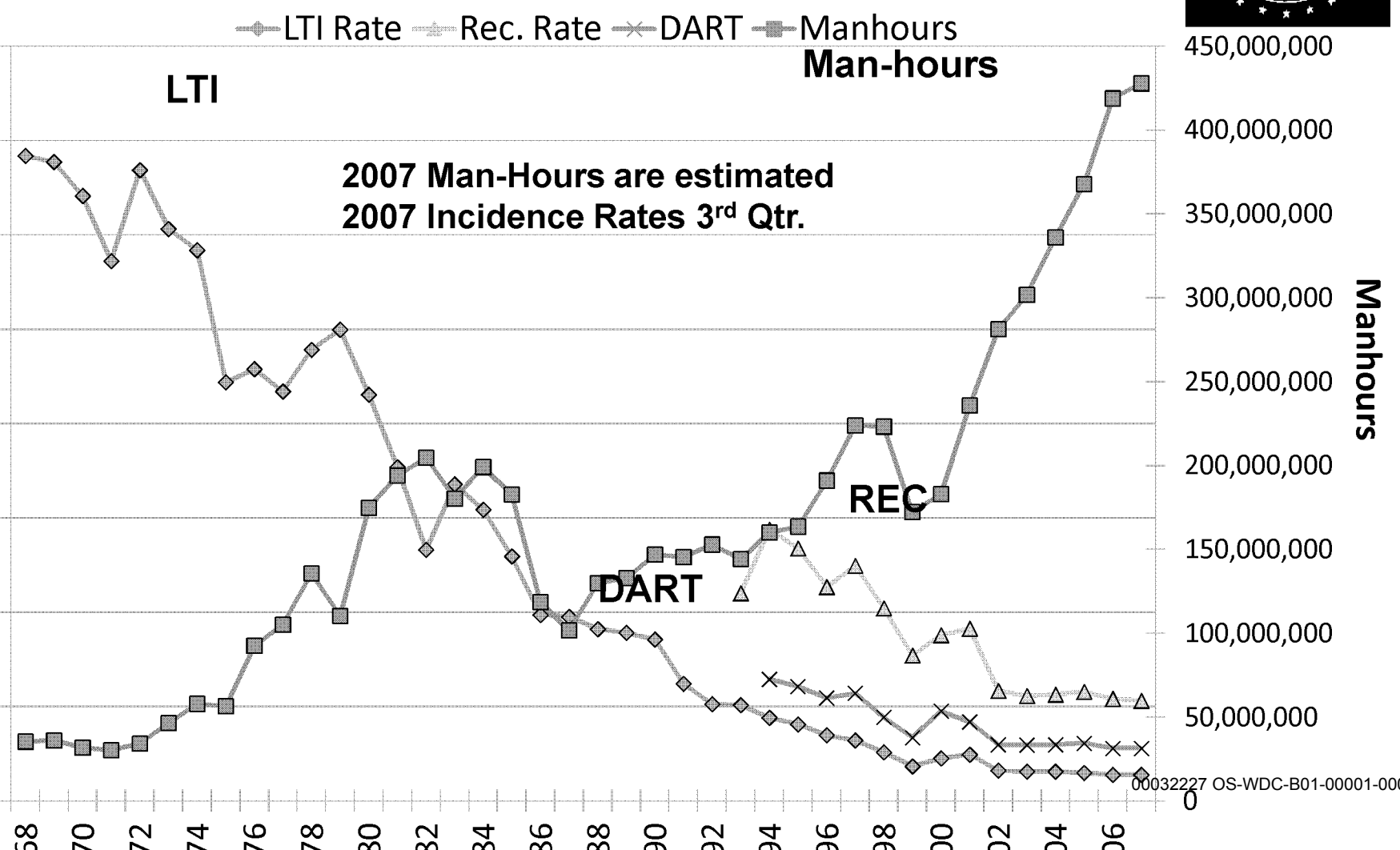
ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

- Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.
- One blowout associated with drilling. 1,688 barrels condensate spilled.
- One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.
- 2,500 barrels crude oil spilled.
- One blowout (Santa Barbara) was associated with drilling.
- 80,000 barrels spilled.
- One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.
- 30,000 barrels crude oil spilled.
- One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

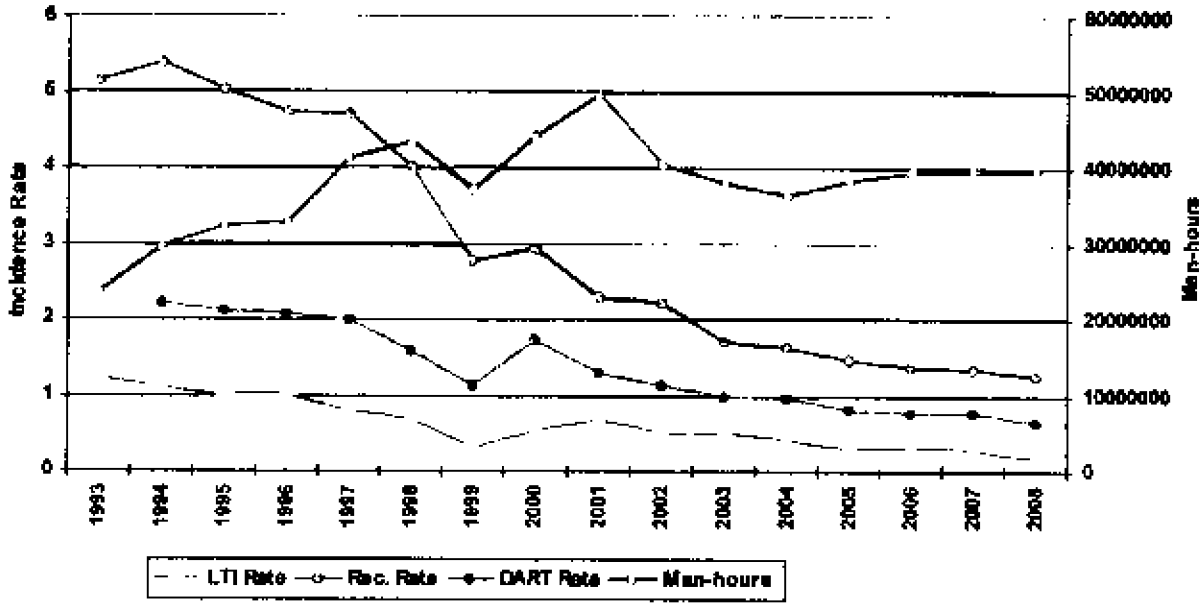
TOTAL INDUSTRY INCIDENCE RATES



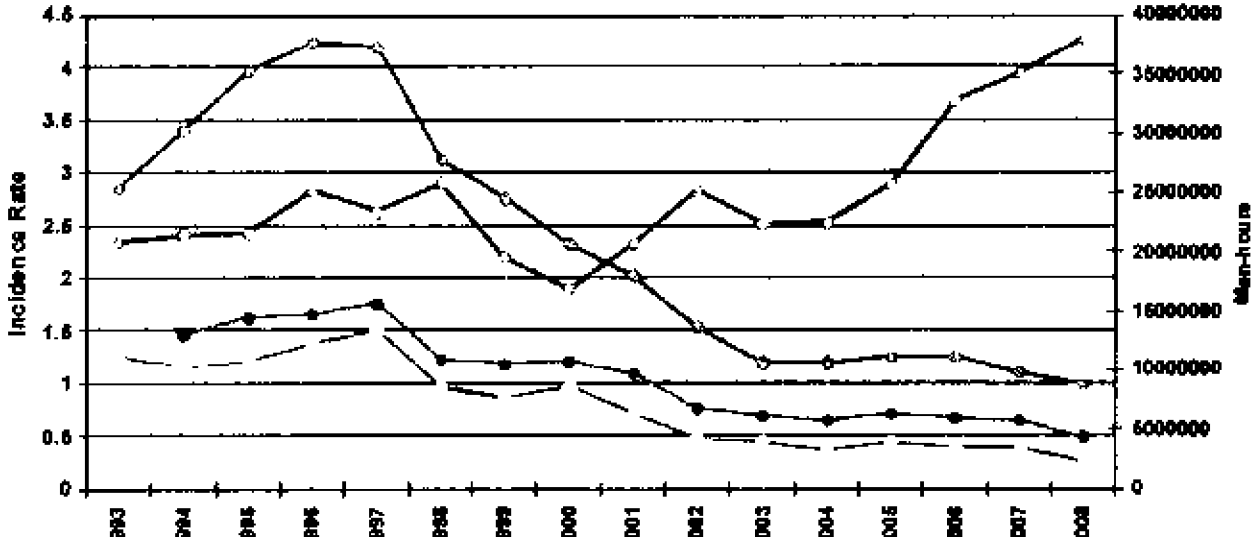
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

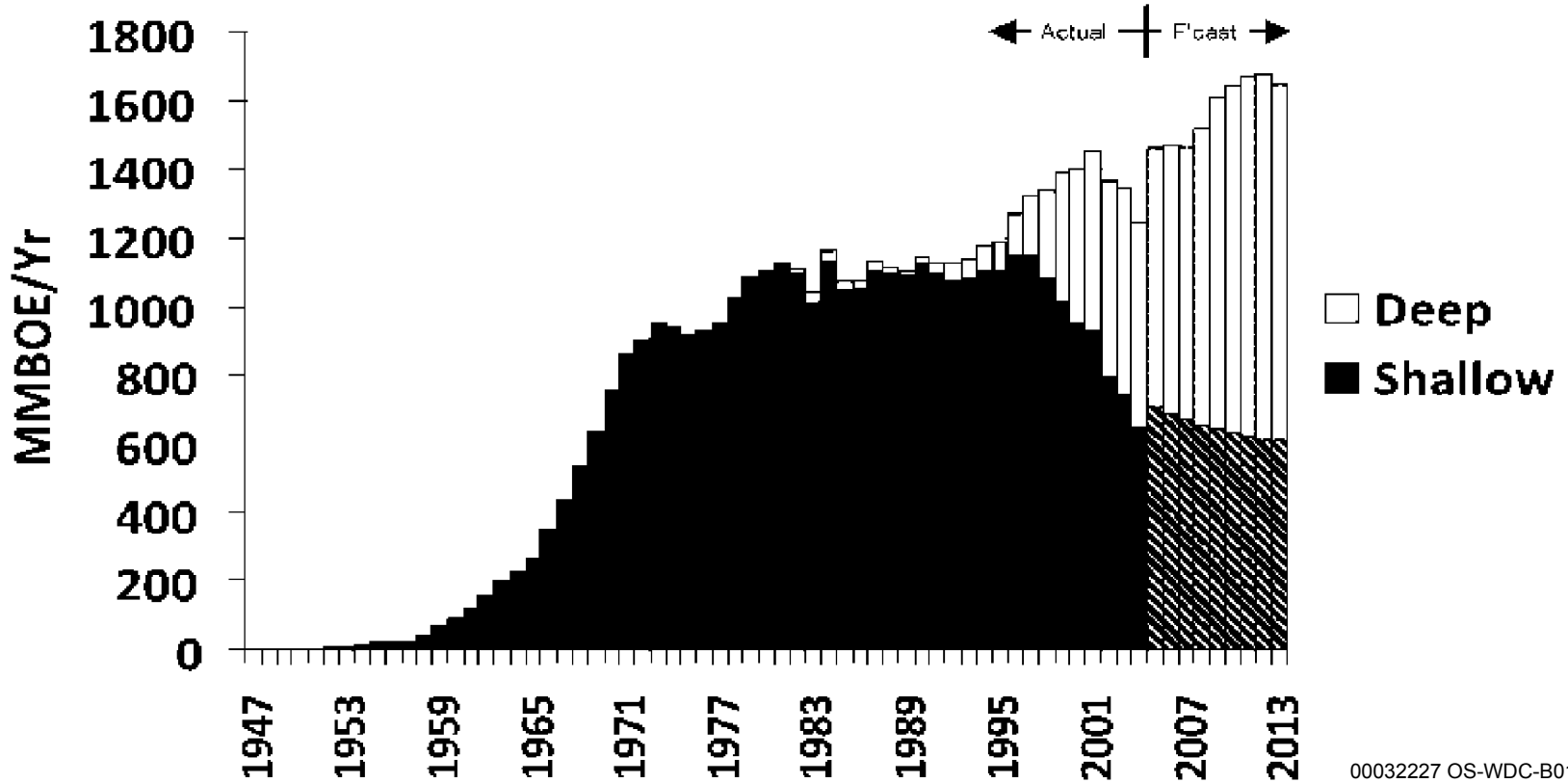


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

The bad

Understanding the Moratorium

You experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases you agreed with time frames of as long as 6 months and even in one or two cases longer. How can I face the American people and say drilling is safe before I can assure them that your own recommendations are carried out? By not allowing drilling until all the recommendations you told me are necessary to make drilling safe are in place I am honoring your technical analysis.

The Four Negatives of the Moratorium

The reasons for this are complicated, the moratorium will increase risk by:

- 1) requiring all drilling rigs to stop immediately and then re-enter wells at some future undefined date,
- 2) affecting the mix of rigs available for drilling once the moratorium is lifted- the best rigs are the first to go and last to return,
- 3) reducing the experience level of drilling staff as they go overseas or leave the industry, and
- 4) starting today increasing the amount of oil we have to import by tanker which history shows has a greater potential for spills

Effects of Moratorium on Rigs and Experienced Personnel

Best rigs and people will leave the Gulf

Recruitment of new people will stop – dealing with the unknown, and the best and brightest do not apply for uncertain jobs

Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.

While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "we can't afford safety wise to have a spring training."

The time to get back to drilling, remobilize, new well planning and inspection requirements with be several additional months/years; depending on how many rigs leave the gulf.

The industry feels the safest and most effective rig operations and personnel are being punished.

Manage risk

What is not in the report.

The level of risk varies significantly between well types based on exploration, geology, and categories

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted.

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require some modifications immediately

Provide a mechanism to allow rigs to remain in the Gulf of Mexico

Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Potential Steps to Re-Define the Moratorium to INCREASE Safety

Allow rigs to complete the work they are currently doing

Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)

Maintain the moratorium on the more risky wells.

Risky Wells

Exploration

Deepening existing wells

Less Risky Wells which Can be Drilled

Less risky to more risky:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood, Gas Injection
- Wells to Known Reservoirs
- Workovers
- Delineation Wells to Non-producing Reservoirs

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all floating drilling operations will be required to have two sets of blind shear rams spaced at least 4 feet apart (to prevent system failure if drill pipe joint or drill tool is across one set of rams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical rkgroup to develop further improvements to ROV operating capabilities luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This “safety case” should establish risk assessment and mitigation processes to manage a drilling contractor’s controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor’s management of change (MOC) and risk assessment to the lease operator’s MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Black, Steve
Sent: Friday, June 18, 2010 10:18 PM
To: 'karnold@karnoldconsulting.com'; Dubin, Lindsay
Cc: Kemkar, Neal; Hanley, Kallie
Subject: Re: Meeting with Secretary Salazar Monday 6.21.10

Thanks Ken. Will you please be sure to send the final before Monday?

I appreciate your courtesies.

Steve

From: Ken Arnold <karnold@karnoldconsulting.com>
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Sent: Fri Jun 18 15:43:02 2010
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From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Saturday, June 19, 2010 4:48 PM
To: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Cc: Black, Steve; Hanley, Kallie; Kemkar, Neal
Subject: Meeting Monday
Attachments: Presentation to Secretary of Interior - Rev 3.pptx

I have modified the power point based on comments received. I have put the detail listing of various levels of recommendations in the appendix and clarified the outline of the discussion. I will take another run at simplifying and clarifying so keep the cards and letters coming.

I am trying to get statistics on the percent of oil spilled from OCS operations and percent of oil spilled from tanker transportation. I have it for the OCS and I have average oil spilled per year from tankers in North America (30,000 barrels per year from 1990-1999) as opposed to an average of 3300 barrels/year from platforms and rigs (1970-2009 including two bad hurricane decades). The problem is I don't know how much of the 30,000 barrels to attribute to US alone (I am guessing 75% or 22,000). And I don't know how much oil and products are imported each year by tanker. If I assume twice as much is transported by tanker than produced on the OCS, than the ratio of 11,000 to 3300 is a measure of riskiness of importing by tanker rather than producing. It seems to be about 3 to 1. It gets even more complicated if you include bilge water and spills at offloading terminals on the one hand and produced water discharges from platforms on the other but let's not get into that. Sounds like a good Masters thesis and I don't have the time today.

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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why We Are Here
2. Putting the Risks in Context
3. Putting the Moratorium in Context
4. Measures that should be taken now to improve safety in the GOM

Why Are We Here

We are not here to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.

We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.

This is the time we all need to work together and we understand the job at hand.

This is not the time to punish the innocent nor further harm the public's interest .

Why Are We Here

The moratorium as currently defined INCREASES risk when drilling is eventually resumed.

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

We believe a moratorium is needed, but we believe it can be re-defined to reduce risk

- 1. Remove requirement for stopping operations
- 2. Require the implementation of many of the recommendations of the interim report including some not already included in NTL 05.
- 3. Allow drilling of "low risk" wells to maintain GOM drilling equipment and expertise.

Putting The Risks in Context

BP Oil Spill Disaster

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

- The well design was marginal
- Human errors in judgment were made at very key operational decision points
- Warning signs were overlooked on the rig
- There may have been some failure of equipment

This was all preventable by following currently in place standard practices.

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 4000 in over 1000 feet of water.

Last major incident resulting in oil coming ashore in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.

One blowout associated with drilling. 1,688 barrels condensate spilled.

One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.

2,500 barrels crude oil spilled.

One blowout (Santa Barbara) was associated with drilling.

80,000 barrels spilled.

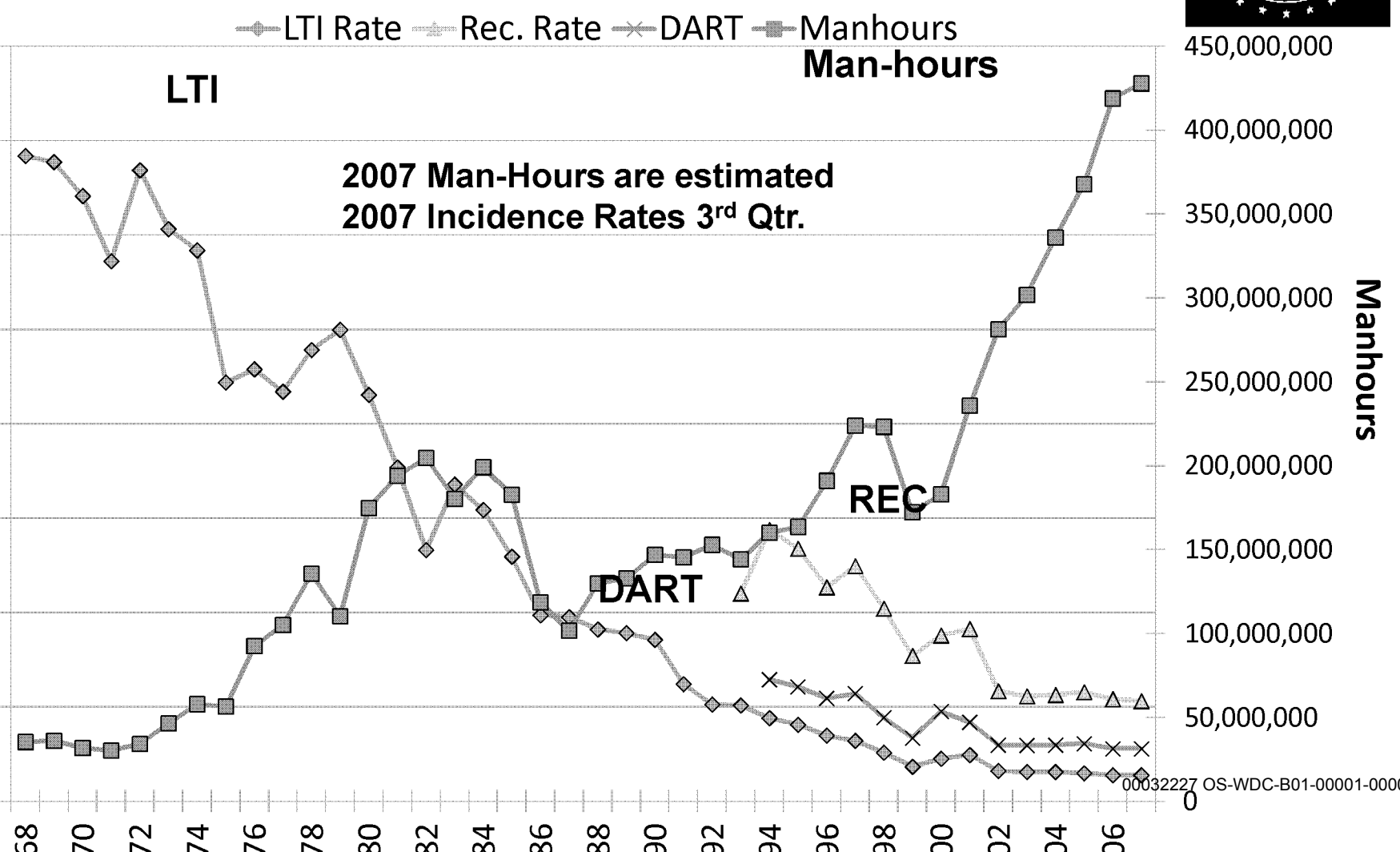
One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.

30,000 barrels crude oil spilled.

One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

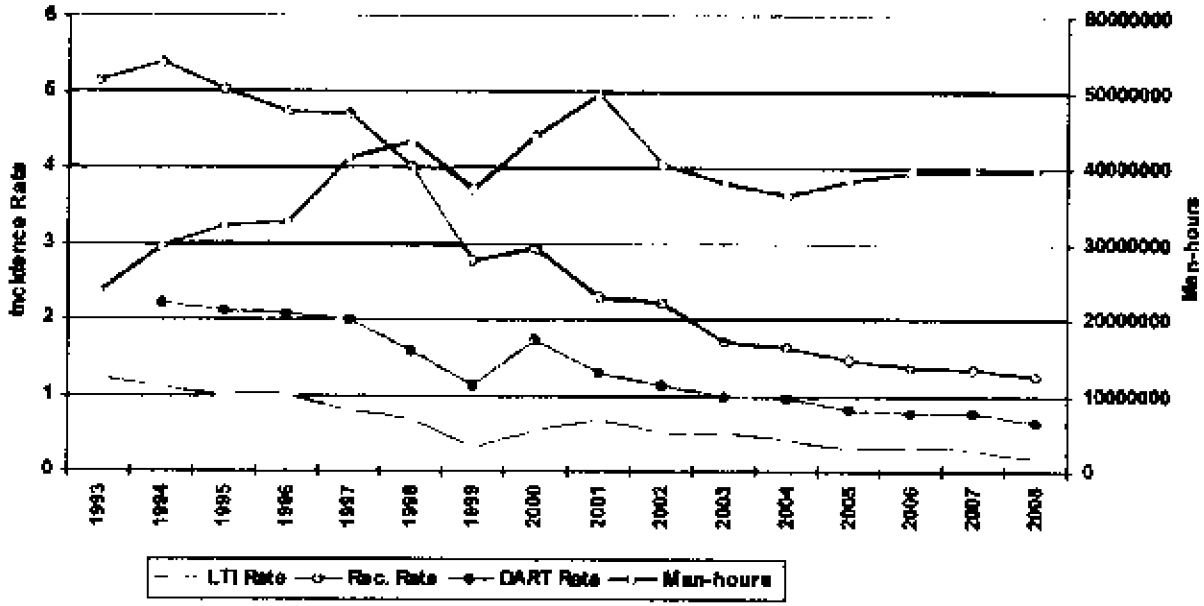
TOTAL INDUSTRY INCIDENCE RATES



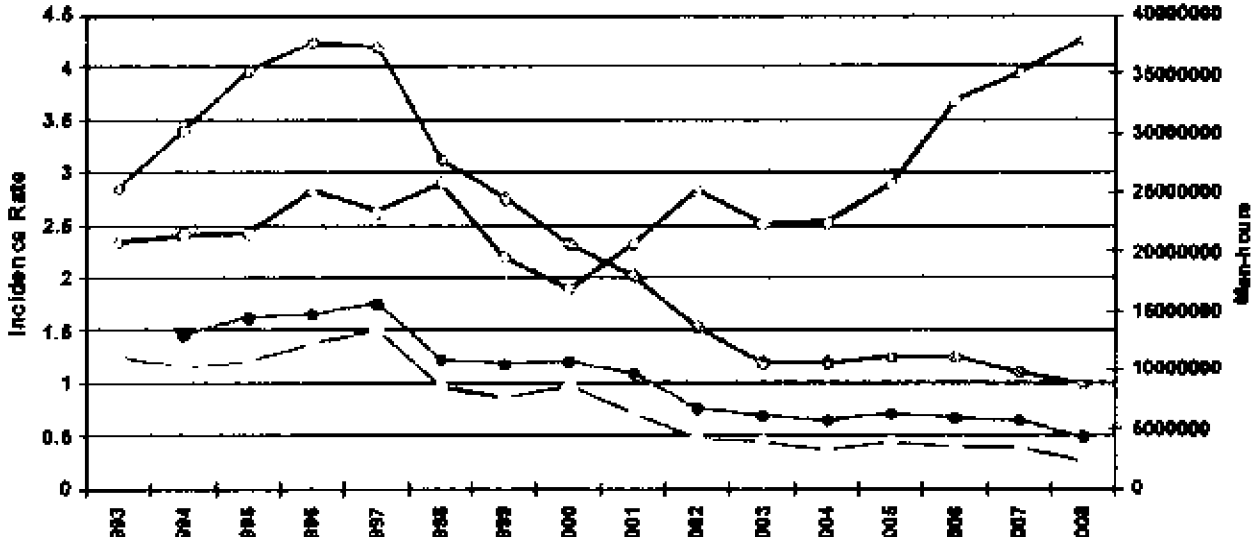
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

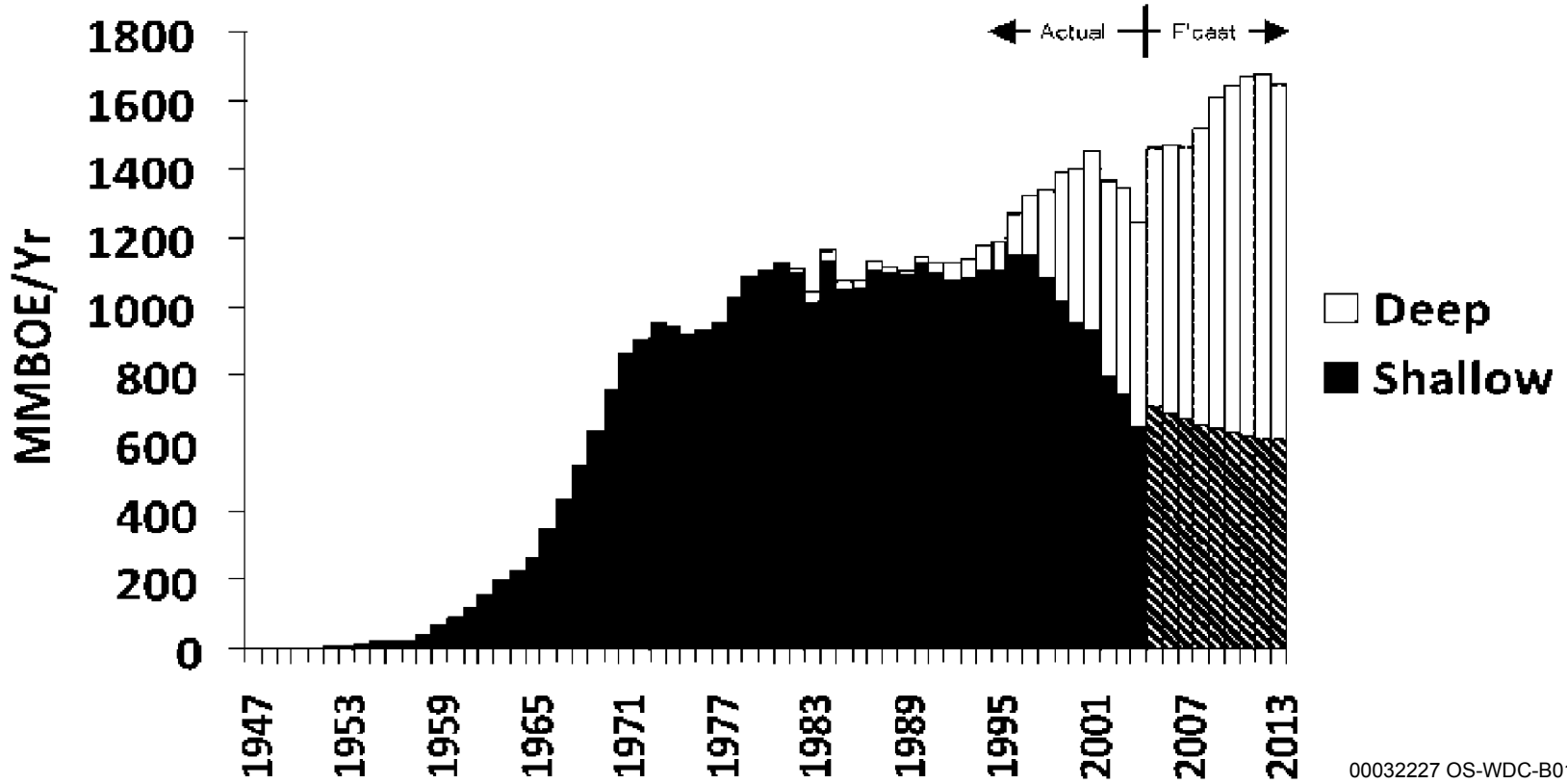


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

Understanding the Risks Summary

Even under existing conditions the record is good and improving at the same time that we are moving more and more into deep water

The Interim Report recommendations which can be implemented immediately (within 30 Days) should reduce the risk further but as the risks are low this is a marginal step

The Interim Report recommendations which take more time (up to 6 Months) should reduce the risks even further but in an even more marginal amount.

Putting the Moratorium in Context

Rationale for a Moratorium

We experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases we agreed with time frames of as long as 6 months and even in one or two cases longer. How can we face the American people and say drilling is safe before all of our own recommendations can be carried out?

By not allowing drilling until all the recommendations we told the DOI are necessary for safety are in place the DOI is honoring our technical analysis.

The “Four Negatives” of the Moratorium

The Moratorium itself increases risk by:

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

To reduce overall risk, the risk reductions which occur as a result of the Moratorium need to outweigh the added risks of the “four negatives”

As currently defined the Moratorium does not accomplish this objective

The Moratorium can be redefined to reduce risk

Effects of Stopping Operations

In any project risks are introduced when an appropriately planned operation is temporarily abandoned and then re-started at some future undetermined date.

- Macondo Well was being temporarily abandoned
- Montara Well was being re=entered after having been temporarily abandoned for four months

The Effect of the Moratorium on Rigs

Best rigs will leave the Gulf first and come back last. This has a marginal negative impact on the overall safety of the fleet.

Rigs will leave on long term contracts (2-5 years) and it will take a long time after the moratorium ends to get them back.

The time to remobilize will take several additional months/years after the Moratorium is lifted and new rules in place.

Effects of Moratorium on Experienced Personnel

- Best people will leave the Gulf
- Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.
- Recruitment of new people will stop – the best and brightest do not apply for uncertain jobs
- While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "From a safety standpoint we can't afford to have a spring training."
- The industry feels the safest and most effective rig operations and personnel are being punished.

Measures that should be taken now to improve safety in the GOM

Manage Risk

The level of risk varies significantly between well types based on knowledge of formations being drilled and category of well

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted:

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require adoption of some Interim Report recommendations immediately

Provide a mechanism to allow rigs to remain working in the Gulf of Mexico

- Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Maintain Moratorium on "Risky Wells"

Steps to Re-Define the Moratorium to INCREASE Safety

- Allow rigs to complete the work they are currently doing
- Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)
  - 8 Recommendations Already in NTL 05
  - 5 Additional Recommendations which could be added
- Maintain the moratorium on the more risky wells
  - Remaining Recommendations requiring additional study.

Risky Wells

Exploration wells to previously undrilled strata

Deepening existing wells to previously undrilled strata

HP/HT Wells

Less Risky Wells which Can be Drilled

Listed in increasing degree of risk:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood and Gas Injection
- Wells to Known Reservoirs
- Workovers
- Delineation Wells to Non-producing Reservoirs

Wells in red above are already exempted from the moratorium by NTL 04

Conclusions

A moratorium is needed

It needs be defined taking into account ALL elements of risk, including the risks derived from the moratorium itself

Drilling can be made safer quickly by implementing many of the recommendations of the Interim Report

We should not ignore the “four Negatives” of the moratorium

It is justifiable to put a moratorium on “Risky Wells” to allow further thought and study

Appendices

30-Day Recommendations Already in NTL

Recommendations Which Could be Implemented But Are Not Currently in NTL

Recommendations to be Implemented After 30 Days

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all floating drilling operations will be required to have two sets of blind shear rams spaced at least 4 feet apart (to prevent system failure if drill pipe joint or drill tool is across one set of rams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical
rkgroup to develop further improvements to ROV operating capabilities
luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This "safety case" should establish risk assessment and mitigation processes to manage a drilling contractor's controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor's management of change (MOC) and risk assessment to the lease operator's MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Black, Steve
Sent: Saturday, June 19, 2010 4:49 PM
To: Ken Arnold
Subject: Out of Office: Meeting Monday

Thank you for your e-mail. I will be out of the office and unable to check or reply to e-mails until Thursday June 24, 2010. If you need immediate assistance, please contact Janea Scott (janea_scott@ios.doi.gov) or Neal Kemkar (neal_kemkar@ios.doi.gov) in the Office of the Secretary. You may also leave a message with my Executive Assistant, Doris Johnston, at 202-208-4123. Thanks.

Nguyen, Ngoc B

From: Benton Baugh [bbaugh@radoil.com]
Sent: Saturday, June 19, 2010 6:16 PM
To: tom.williams@nautilus-int.com; 'Ken Arnold'; 'Bob Bea'; 'Ford Brett'; 'Hans Juvkam-Wold'; 'Martin Chenevert'; 'Per Holand'; 'Skip Ward'
Cc: Black, Steve; Hanley, Kallie; Kemkar, Neal
Subject: RE: Meeting Monday

I would be surprised if he has a 15 minute attention span. It would be appropriate to clearly state the case by slide 2 that he could say yes or no to. (b) (5) [redacted]

Benton

From: Tom Williams [mailto:tom.williams@nautilus-int.com]
Sent: Saturday, June 19, 2010 4:38 PM
To: Ken Arnold; Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Martin Chenevert; Per Holand; Skip Ward
Cc: Steve Black; Kallie Hanley; 'Kemkar, Neal'
Subject: Re: Meeting Monday

Thanks Ken and all the comments are appreciated. Good power points to leave behind. I spoke to a long time friend that works for a mostly democrat and well respected law firm in DC; strong colorado connections; he has known Salazar for a long time:
15 min attention span; well over his head; overwhelmed with the job he has; his staffers are obama worshipers; a relative weak manager and is dictated by the white house (browner); has little understanding of energy business, hates big oil - good news is he is a nice guy and likes smart guys so all of you will be well received. Suggestion was make an offer up front he can't refuse. Details are left for follow ons.

Sent via BlackBerry by AT&T

From: "Ken Arnold" <karnold@karnoldconsulting.com>
Date: Sat, 19 Jun 2010 15:48:09 -0500
To: Benton Baugh<bbaugh@radoil.com>; Bob Bea<bea@ce.berkeley.edu>; Ford Brett<fbrett@petroskills.com>; Hans Juvkam-Wold<juvkam-wold@pe.tamu.edu>; Ken Arnold<karnold@karnoldconsulting.com>; Martin Chenevert<mechenevert@austin.utexas.edu>; Per Holand<Per.holand@exprosoft.com>; Skip Ward<egward@tamu.edu>; Tom Williams<Tom.Williams@Nautilus-Int.com>
Cc: 'Black, Steve'<steve_black@ios.doi.gov>; 'Hanley, Kallie'<Kallie_Hanley@ios.doi.gov>; 'Kemkar, Neal'<Neal_Kemkar@ios.doi.gov>
Subject: Meeting Monday

I have modified the power point based on comments received. I have put the detail listing of various levels of recommendations in the appendix and clarified the outline of the discussion. I will take another run at simplifying and clarifying so keep the cards and letters coming.

I am trying to get statistics on the percent of oil spilled from OCS operations and percent of oil spilled from tanker transportation. I have it for the OCS and I have average oil spilled per year from tankers in North America (30,000 barrels per year from 1990-1999) as opposed to an average of 3300 barrels/year from platforms and rigs (1970-2009

including two bad hurricane decades). The problem is I don't know how much of the 30,000 barrels to attribute to US alone (I am guessing 75% or 22,000). And I don't know how much oil and products are imported each year by tanker. If I assume twice as much is transported by tanker than produced on the OCS, than the ratio of 11,000 to 3300 is a measure of riskiness of importing by tanker rather than producing. It seems to be about 3 to 1. It gets even more complicated if you include bilge water and spills at offloading terminals on the one hand and produced water discharges from platforms on the other but let's not get into that. Sounds like a good Masters thesis and I don't have the time today.

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Nguyen, Ngoc B

From: Juvkam-Wold, Hans [juvkam-wold@pe.tamu.edu]
Sent: Sunday, June 20, 2010 9:11 AM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Lindsay,

Thanks for sending the call-in information. The meeting starts at 10 a.m. Washington time, is that correct?

Hans

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know by 3:00pm EASTERN tomorrow if you will be able to participate. Please be sure to indicate whether you will be attending in person or via phone. We will reach out to you with arrival instructions or a conference call number following our receipt of your participation.

Thank you,

Lindsay Dubin
Special Assistant
Office of Scheduling and Advance
The U.S. Department of the Interior
p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov<mailto:brian_screnar@ios.doi.gov>

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Monday, June 21, 2010 5:06 PM
To: Hayes, David
Cc: Black, Steve; 'Godwin, Stephen'
Subject: Power Point, Answers to the Secretary's Challenge and Questions About my NRC Committee
Attachments: Presentation to Secretary of Interior - Rev 4.pptx

David

Attached is a copy of the power point we presented at today's meeting with the Secretary. Please disregard all past versions of this power point. Neal Kemkar has a copy as well.

Two other thoughts:

1. The Secretary's concerns about our ability to handle a leak from a blowout preventer in deep water are reasonable. However, we are in the midst of a very fast learning curve and test program much better than any research project that could be in this regard. Once BP is finished with the devices they have used, they will be available to industry if maintained by Clean Gulf Associates, MSRC or similar organization. Some of these devices which did not work on this well could work on a future well which had a slightly different problem. Since we can't anticipate what the situation of that well could be, we should keep all these mechanisms in our bag of tricks. In a future incident, if there ever is one, some modification will be necessary to fit this equipment to the situation. But that will always be the case. The MMS could certainly put a group together to start with this equipment and build additional potential equipment after further study. It would probably take a year to think of other pieces of equipment which might be useful and to fabricate them in such a way that they could be stored and deployed quickly.

2. I met with Steve Godwin and others at the NRC about the future of the Committee to Evaluate the MMS Offshore Inspection System of which I am chair. I suggested to them that it will be impossible for us to proceed given the number of investigations going forward. We could not get the oil companies to meet with us last month and I think it will be even harder now. Our committee has some good people and we have done some good work to date. I think that MMS or DOI needs to re-think how we can help and not just get in the way. I am not sure how to vet this through the DOI but perhaps DOI should at least consider talking to the Steve Godwin at the NRC about this issue.

Thanks for your attention this morning.

Ken

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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why We Are Here
2. Putting the Risks in Context
3. Putting the Moratorium in Context
4. Measures that should be taken now to improve safety in the GOM
5. Conclusions
6. Appendices

Why Are We Here

We are not here to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.

We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.

This is the time we all need to work together and we understand the job at hand.

This is not the time to punish the innocent nor further harm the public's interest .

Why Are We Here

The moratorium as currently defined INCREASES risk when drilling is eventually resumed.

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

We believe a moratorium is needed, but we believe it can be re-defined to reduce risk

- 1. Remove requirement for stopping operations
- 2. Require the implementation of many of the recommendations of the interim report including some not already included in NTL 05.
- 3. Allow drilling of "low risk" wells to maintain GOM drilling equipment and expertise.

Putting The Risks in Context

BP Oil Spill Disaster

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

- The well design was marginal
- Human errors in judgment were made at very key operational decision points
- Warning signs were overlooked on the rig
- There may have been some failure of equipment

This was all preventable by following currently in place standard practices.

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 4000 in over 1000 feet of water.

Last major incident resulting in oil coming ashore in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.

One blowout associated with drilling. 1,688 barrels condensate spilled.

One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.

2,500 barrels crude oil spilled.

One blowout (Santa Barbara) was associated with drilling.

80,000 barrels spilled.

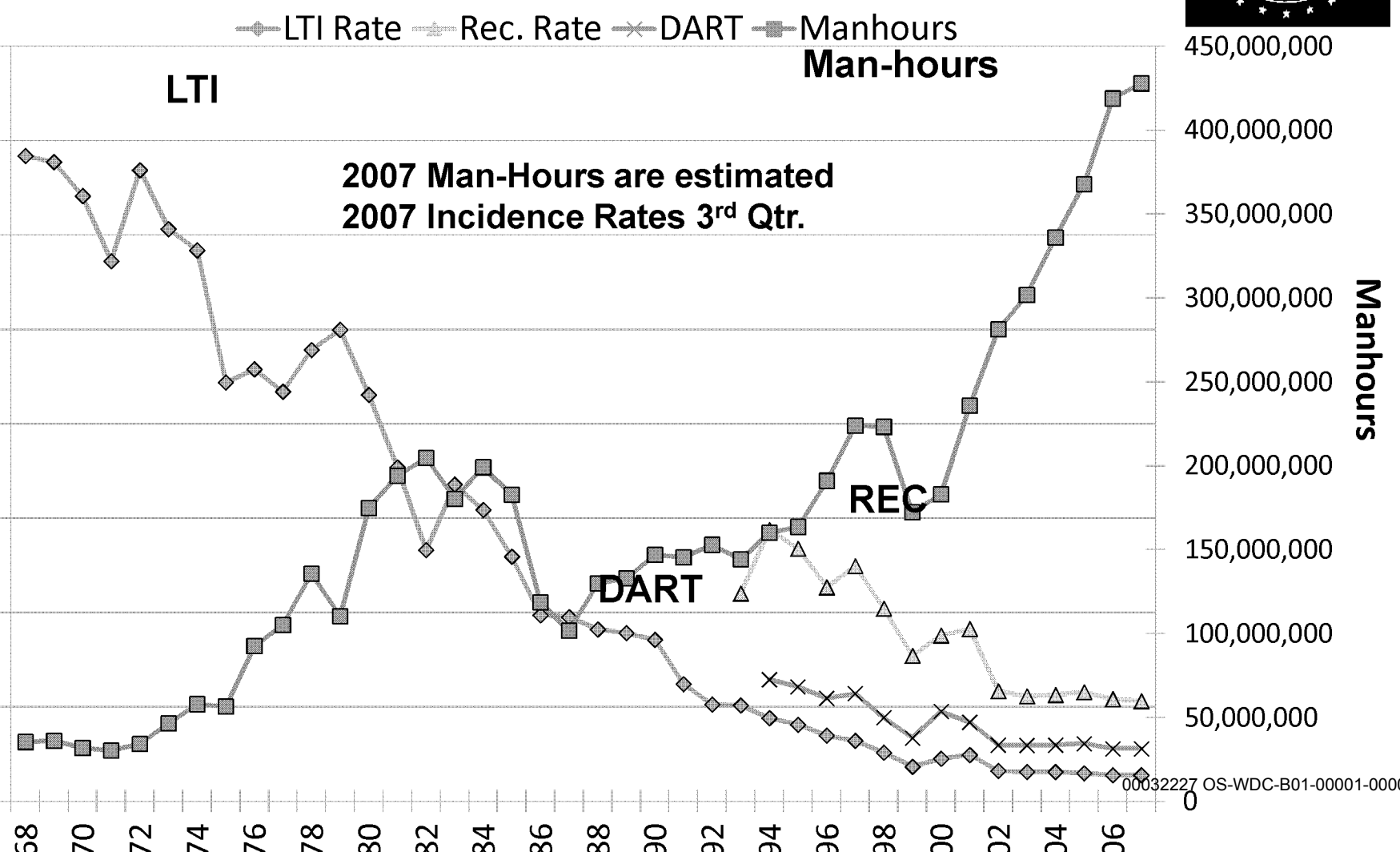
One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.

30,000 barrels crude oil spilled.

One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

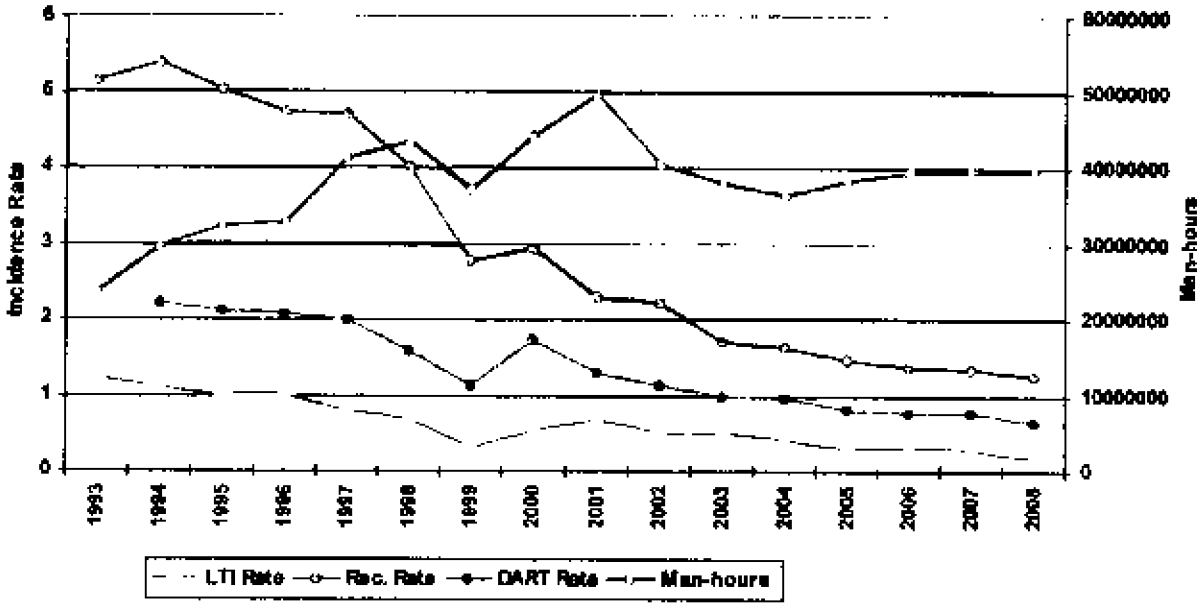
TOTAL INDUSTRY INCIDENCE RATES



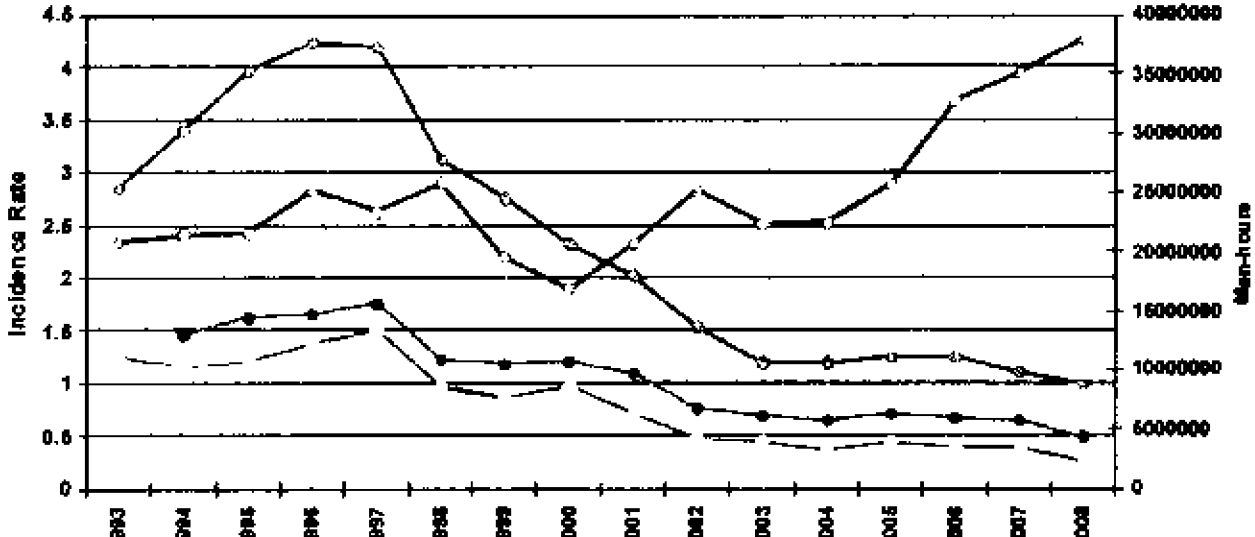
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

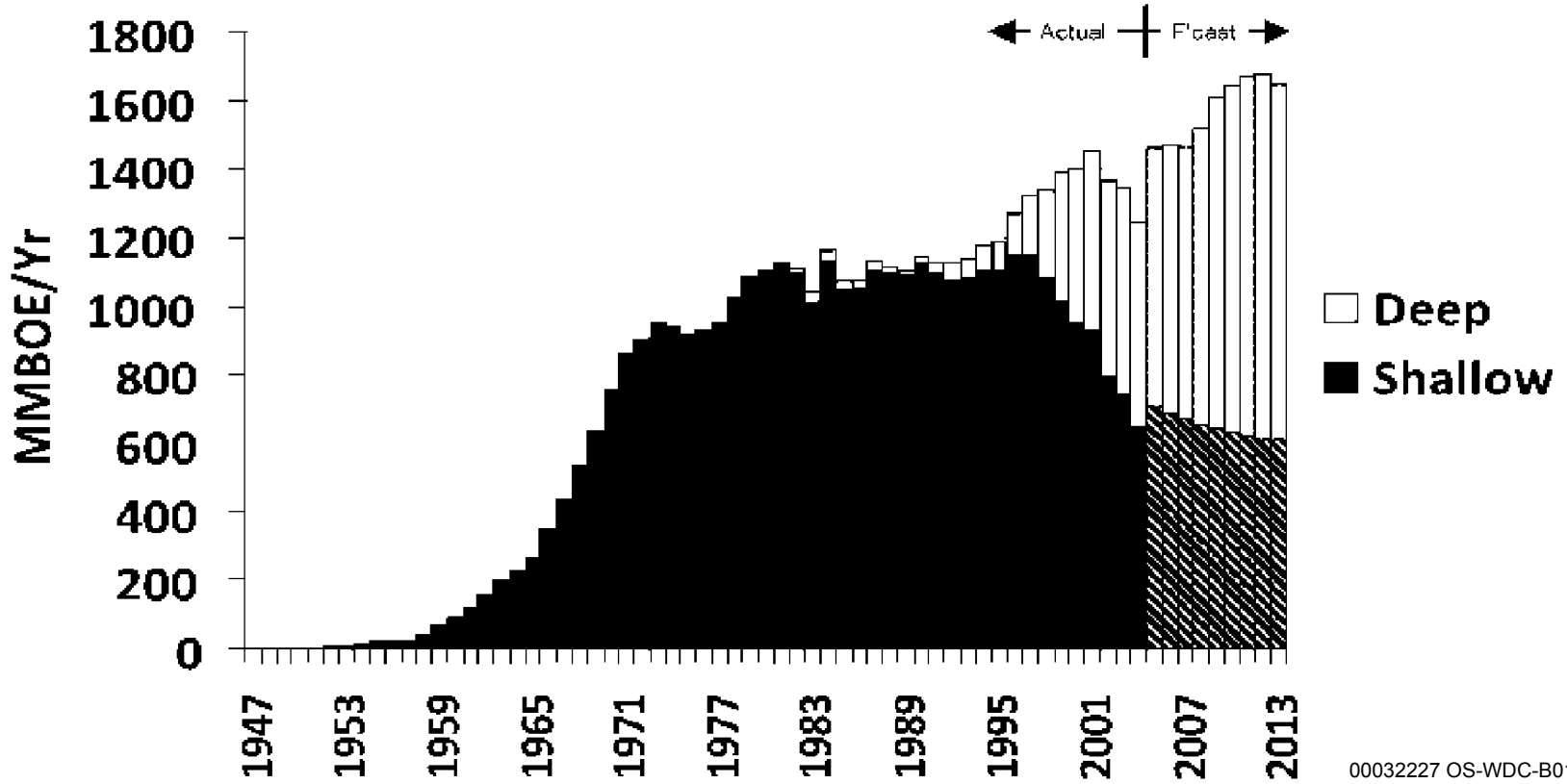


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

Understanding the Risks Summary

Even under existing conditions the record is good and improving at the same time that we are moving more and more into deep water

The Interim Report recommendations which can be implemented immediately (within 30 Days) should reduce the risk further but as the risks are low this is a marginal step

The Interim Report recommendations which take more time (up to 6 Months) should reduce the risks even further but in an even more marginal amount.

Putting the Moratorium in Context

Rationale for a Moratorium

We experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases we agreed with time frames of as long as 6 months and even in one or two cases longer. How can we face the American people and say drilling is safe before all of our own recommendations can be carried out?

By not allowing drilling until all the recommendations we told the DOI are necessary for safety are in place the DOI is honoring our technical analysis.

The “Four Negatives” of the Moratorium

The Moratorium itself increases risk by:

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

To reduce overall risk, the risk reductions which occur as a result of the Moratorium need to outweigh the added risks of the “four negatives”

As currently defined the Moratorium does not accomplish this objective

The Moratorium can be redefined to reduce risk

Effects of Stopping Operations

In any project risks are introduced when an appropriately planned operation is temporarily abandoned and then re-started at some future undetermined date.

- Macondo Well was being temporarily abandoned
- Montara Well was being re=entered after having been temporarily abandoned for four months

The Effect of the Moratorium on Rigs

- Best rigs will leave the Gulf first and come back last. This has a marginal negative impact on the overall safety of the fleet.
- Rigs will leave on long term contracts (2-5 years) and it will take a long time after the moratorium ends to get them back.
- The time to remobilize will take several additional months/years after the Moratorium is lifted and new rules in place.

Effects of Moratorium on Experienced Personnel

- Best people will leave the Gulf
- Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.
- Recruitment of new people will stop – the best and brightest do not apply for uncertain jobs
- While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "From a safety standpoint we can't afford to have a spring training."
- The industry feels the safest and most effective rig operations and personnel are being punished.

Effects of Moratorium on Tanker Spills

- Source: NRC, “Oil in the Seas”, 2003
- Data for the period 1990-1999 (no one time disaster like Exxon Valdez or BP Macondo)
- Average Best Estimate of Oil Spilled in US waters from offshore platforms and pipelines: 7,000 barrels per year
- Average Best Estimate of Oil Spilled <u>in US waters</u> from tankers: 26,000 barrels per year
  - Does not include spills from US bound tankers in foreign or international waters
  - Does not include spills from marine terminals, refineries and storage tanks
  - Does not include spills at international loading terminals or in producing the oil transported

Measures that should be taken now to improve safety in the GOM

Manage Risk

The level of risk varies significantly between well types based on knowledge of formations being drilled and category of well

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted:

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require adoption of some Interim Report recommendations immediately

Provide a mechanism to allow rigs to remain working in the Gulf of Mexico

- Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Maintain Moratorium on "Risky Wells"

Steps to Re-Define the Moratorium to INCREASE Safety

- Allow rigs to complete the work they are currently doing
- Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)
  - 8 Recommendations Already in NTL 05
  - 5 Additional Recommendations which could be added
- Maintain the moratorium on the more risky wells
  - Remaining Recommendations requiring additional study.

Risky Wells

Exploration wells to previously undrilled strata

Deepening existing wells to previously undrilled strata

HP/HT Wells

Less Risky Wells which Can be Drilled

Listed in increasing degree of risk:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood and Gas Injection
- Development Wells to Known Reservoirs
- Workovers
- Drilling to the base of the salt section in deep exploration wells
- Delineation Wells to Non-producing Reservoirs

Wells in red above are already exempted from the moratorium by NTL 04

Conclusions

A moratorium is needed

It needs be defined taking into account ALL elements of risk, including the risks derived from the moratorium itself

Drilling can be made safer quickly by implementing many of the recommendations of the Interim Report

We should not ignore the “Four Negatives” of the moratorium

Allow drilling of “Less Risky Wells” to avoid the Four Negatives

It is justifiable to put a moratorium on “Risky Wells” to allow further thought and study

Appendices

30-Day Recommendations Already in NTL

Recommendations Which Could be Implemented But Are Not Currently in NTL

Recommendations to be Implemented After 30 Days

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all oating drilling operations will be required to ave two sets of blind shear rams spaced at ast 4 feet apart (to prevent system failure if rill pipe joint or drill tool is across one set of ams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical
rkgroup to develop further improvements to ROV operating capabilities
luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This "safety case" should establish risk assessment and mitigation processes to manage a drilling contractor's controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor's management of change (MOC) and risk assessment to the lease operator's MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Tuesday, June 22, 2010 8:44 AM
To: Black, Steve; Kemkar, Neal; Hanley, Kallie
Cc: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Subject: FW: DOI report

In the email below you can see I have been asked to forward a copy of the power point. I suggested the staff person contact DOI direct. In the meantime, I have also been contacted by several reporters for copies. (b) (5) [redacted].

[redacted].

Please **reply to all** with your thoughts.

Ken

Kenneth E. (Ken) Arnold
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From: Moore, Kristina [mailto:Kristina.Moore@mail.house.gov]
Sent: Monday, June 21, 2010 1:07 PM
To: karnold@karnoldconsulting.com
Subject: DOI report

Mr. Arnold,

Thank you for your time this afternoon. As I mentioned on the phone, I am a senior investigator for Ranking Member Darrell Issa of the House Oversight and Government Reform Committee. The Wall Street Journal article, "Crude Politics," which discusses your concern for an increased safety risk associated with the six month moratorium, caught his eye. Accordingly, I have been instructed to learn more about possible alternatives to the moratorium that would not increase the risk to future drilling operations. In particular, he has expressed interest in proposals such as the "drill but not tap" strategy, which could have the benefit of keeping rigs operating, thereby reducing their incentive to leave the Gulf.

As such, I am very interested in obtaining a copy of the power point presentation you provided to the Department of Interior with these recommendations, as well as any other information that can help inform this discussion. Our standard operating procedure is to notify the source before any public dissemination of documents provided to the Committee and otherwise accommodate specific requests for confidential treatment.

Additionally, I am happy to make the identical request of the Department of Interior. However, you should know that the Department has been less than responsive to pretty much any Congressional investigation, relying heavily on the explanation that "all hands are on deck" responding to the crisis. If you could provide me with identifying characteristics of

the report (date, time, location, of the presentation, and the title of the presentation) that could help facilitate the processing of our request.

I am happy to respond to any questions that you may have and hope that we can start an open dialogue as we work to respond to the disaster in the Gulf.

Many Thanks,

Kristina Moore

Kristina M. Moore

Senior Counsel

Rep. Darrell Issa

Ranking Member of House Oversight and Government Reform

(202) 226-6080

Kristina.Moore@mail.house.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Wednesday, June 23, 2010 7:47 PM
To: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Power Point Presented to Secretary Salazar on 6/21/2010
Attachments: Presentation to Secretary of Interior - Rev 4.pptx

You are receiving this because you expressed an interest in having a copy of the subject report. DOI has been asked if they have a problem with us distributing this to whomever asks and have not expressed an objection. Those present at the meeting or by phone were the original signers of the Group of 8, plus Per Holland and Arnold Stancell. Bob Bea and Skip Ward were unable to participate. From DOI attendees beside the Secretary included David Hayes, Tom Strickland, The new Director of the MMS Mike B (please excuse my inability to spell his last name as I am traveling and don't really have time to look it up).

The people contributing to this power point besides myself are:

Benton Baugh (bbaugh@radoil.com)
Bob Bea (bea@ce.berkeley.edu)
Ford Brett (fbrett@petroskills.com)
Hans Juvkam-Wold (juvkam-wold@pe.tamu.edu)
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Per Holand (Per.holand@exprosoft.com)
Skip Ward (egward@tamu.edu)
Tom Williams (Tom.Williams@Nautilus-Int.com)

The list of those getting this is as follows, but I have copied only two at a time so it is not blocked by a spam filter:

Robert Arnold (rarnold@kprc.com)
Ted Oberg (ted.oberg@abc.com)
Power, Stephen [Stephen.Power@wsj.com]
Naomi Lopez Bauman [(b) (6) [redacted]]
V. Peyton Bruns [(b) (6) [redacted]]
KENDALL KULPER, BLOOMBERG/ NEWSROOM: [kkulper1@bloomberg.net]
Guarino, Mark [GuarinoM@csmonitor.com]
Rosenblum, Carl [crosenblum@joneswalker.com]

The Secretary has expressed an interest in meeting with us in two weeks with a wider audience.

Please be advised I am in SE Asia and will return to Houston Tuesday the 30th in the afternoon. Do not call my cell phone unless it is important as it is an expensive call for me. Also I have been unable to pick up my phone messages since leaving the US. I may be able to pick them up when I leave Viet Nom for Singapore Sunday but am not sure.

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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why We Are Here
2. Putting the Risks in Context
3. Putting the Moratorium in Context
4. Measures that should be taken now to improve safety in the GOM
5. Conclusions
6. Appendices

Why Are We Here

We are not here to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.

We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.

This is the time we all need to work together and we understand the job at hand.

This is not the time to punish the innocent nor further harm the public's interest .

Why Are We Here

The moratorium as currently defined INCREASES risk when drilling is eventually resumed.

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

We believe a moratorium is needed, but we believe it can be re-defined to reduce risk

- 1. Remove requirement for stopping operations
- 2. Require the implementation of many of the recommendations of the interim report including some not already included in NTL 05.
- 3. Allow drilling of "low risk" wells to maintain GOM drilling equipment and expertise.

Putting The Risks in Context

BP Oil Spill Disaster

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

- The well design was marginal
- Human errors in judgment were made at very key operational decision points
- Warning signs were overlooked on the rig
- There may have been some failure of equipment

This was all preventable by following currently in place standard practices.

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 4000 in over 1000 feet of water.

Last major incident resulting in oil coming ashore in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.

One blowout associated with drilling. 1,688 barrels condensate spilled.

One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.

2,500 barrels crude oil spilled.

One blowout (Santa Barbara) was associated with drilling.

80,000 barrels spilled.

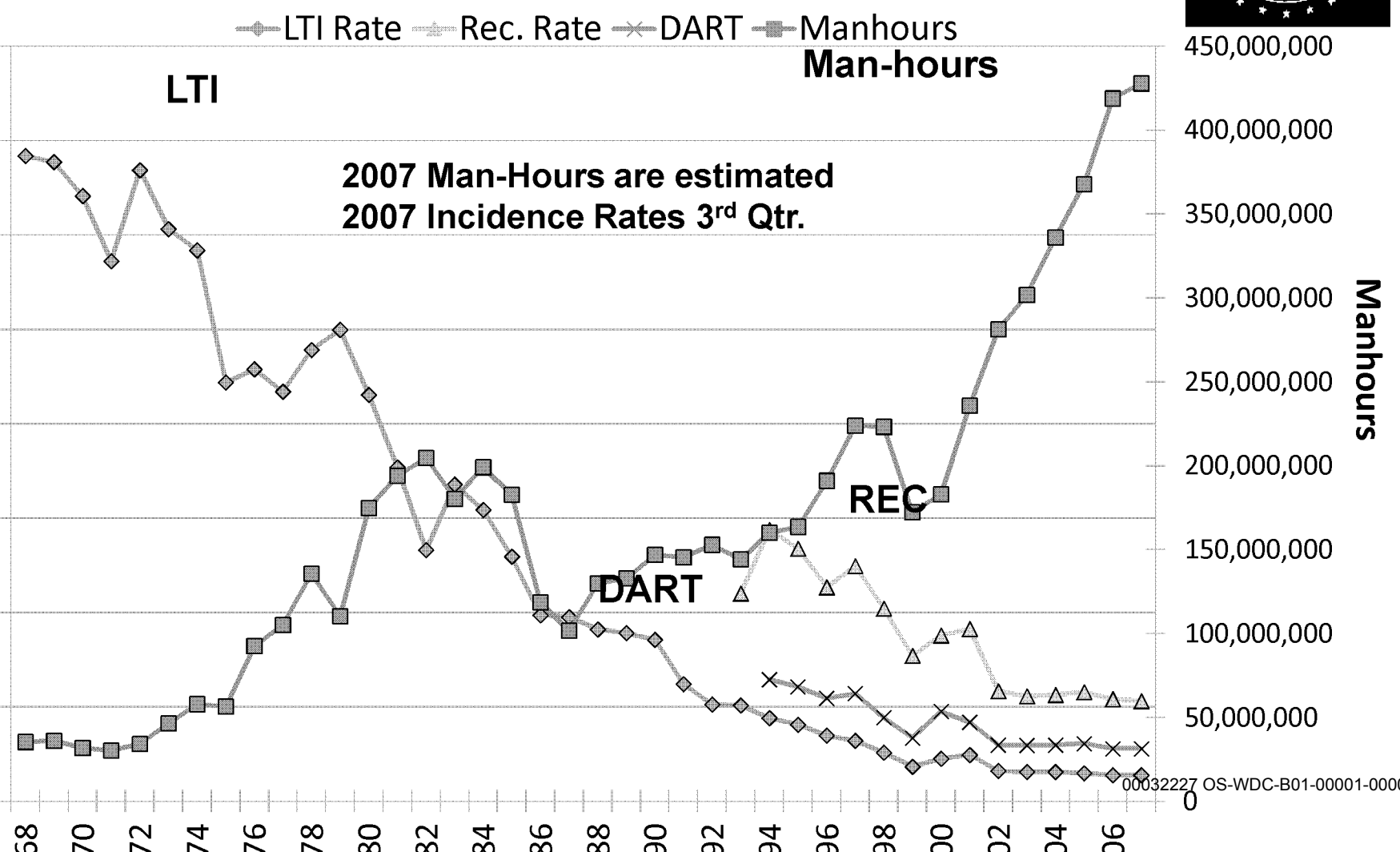
One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.

30,000 barrels crude oil spilled.

One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

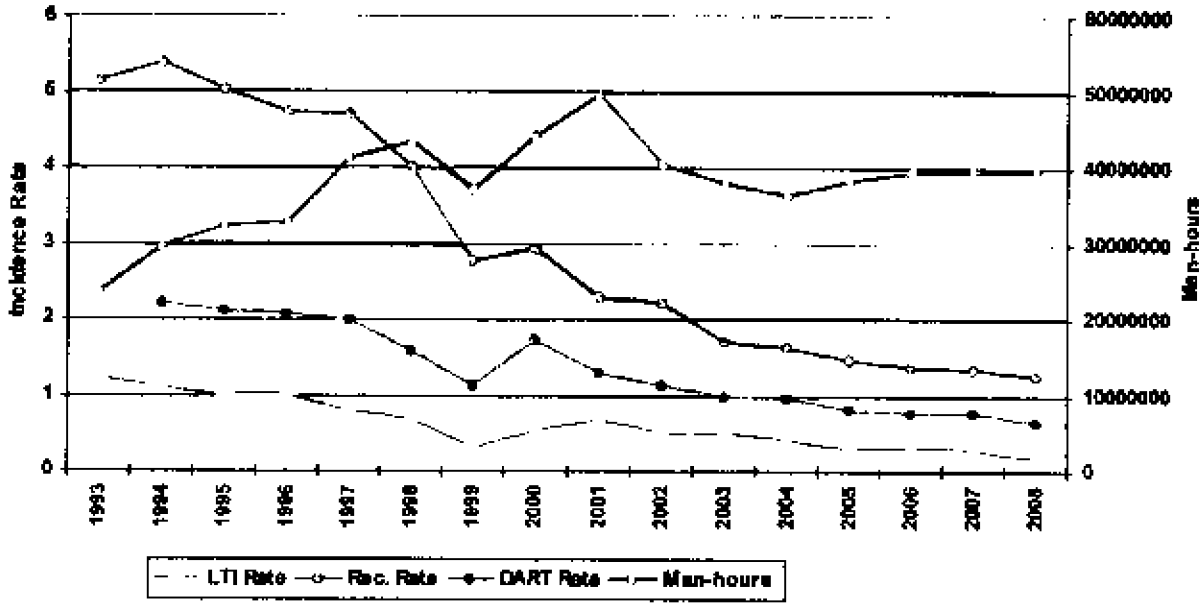
TOTAL INDUSTRY INCIDENCE RATES



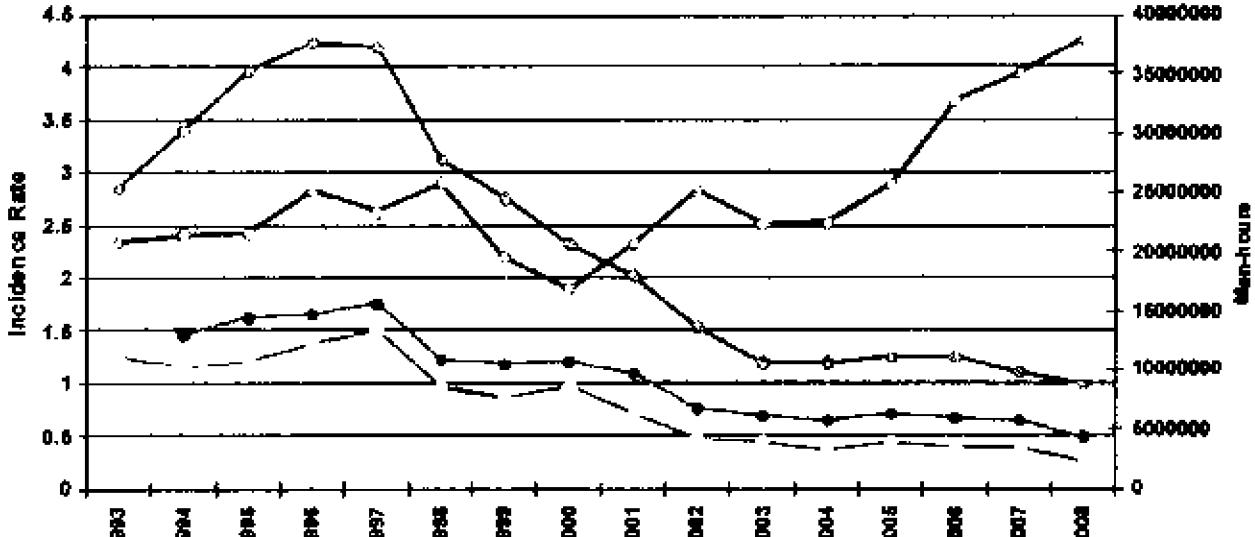
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

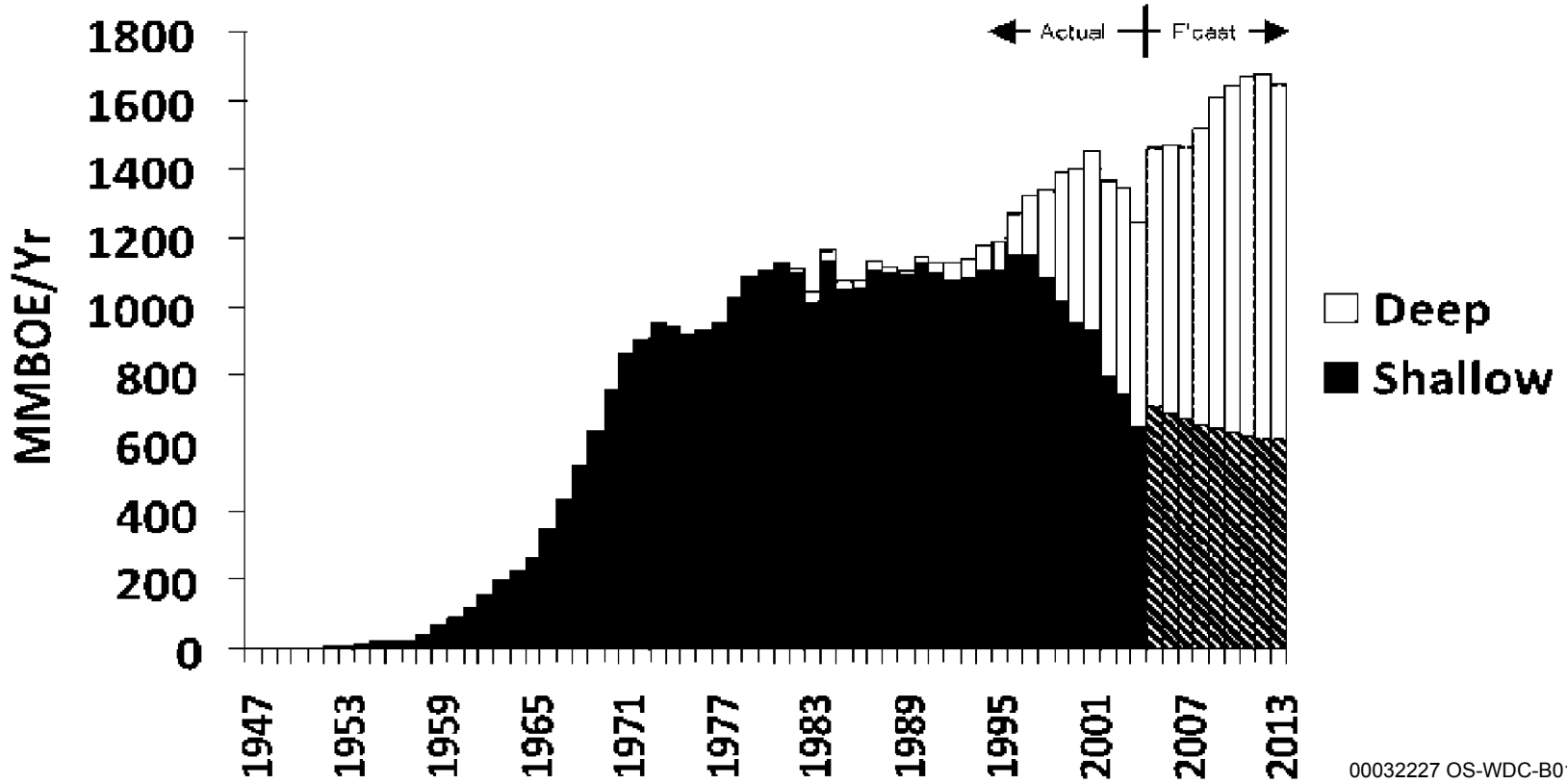


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

Understanding the Risks Summary

Even under existing conditions the record is good and improving at the same time that we are moving more and more into deep water

The Interim Report recommendations which can be implemented immediately (within 30 Days) should reduce the risk further but as the risks are low this is a marginal step

The Interim Report recommendations which take more time (up to 6 Months) should reduce the risks even further but in an even more marginal amount.

Putting the Moratorium in Context

Rationale for a Moratorium

We experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases we agreed with time frames of as long as 6 months and even in one or two cases longer. How can we face the American people and say drilling is safe before all of our own recommendations can be carried out?

By not allowing drilling until all the recommendations we told the DOI are necessary for safety are in place the DOI is honoring our technical analysis.

The “Four Negatives” of the Moratorium

The Moratorium itself increases risk by:

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

To reduce overall risk, the risk reductions which occur as a result of the Moratorium need to outweigh the added risks of the “four negatives”

As currently defined the Moratorium does not accomplish this objective

The Moratorium can be redefined to reduce risk

Effects of Stopping Operations

In any project risks are introduced when an appropriately planned operation is temporarily abandoned and then re-started at some future undetermined date.

- Macondo Well was being temporarily abandoned
- Montara Well was being re=entered after having been temporarily abandoned for four months

The Effect of the Moratorium on Rigs

- Best rigs will leave the Gulf first and come back last. This has a marginal negative impact on the overall safety of the fleet.
- Rigs will leave on long term contracts (2-5 years) and it will take a long time after the moratorium ends to get them back.
- The time to remobilize will take several additional months/years after the Moratorium is lifted and new rules in place.

Effects of Moratorium on Experienced Personnel

- Best people will leave the Gulf
- Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.
- Recruitment of new people will stop – the best and brightest do not apply for uncertain jobs
- While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "From a safety standpoint we can't afford to have a spring training."
- The industry feels the safest and most effective rig operations and personnel are being punished.

Effects of Moratorium on Tanker Spills

- Source: NRC, "Oil in the Seas", 2003
- Data for the period 1990-1999 (no one time disaster like Exxon Valdez or BP Macondo)
- Average Best Estimate of Oil Spilled in US waters from offshore platforms and pipelines: 7,000 barrels per year
- Average Best Estimate of Oil Spilled <u>in US waters</u> from tankers: 26,000 barrels per year
  - Does not include spills from US bound tankers in foreign or international waters
  - Does not include spills from marine terminals, refineries and storage tanks
  - Does not include spills at international loading terminals or in producing the oil transported

Measures that should be taken now to improve safety in the GOM

Manage Risk

The level of risk varies significantly between well types based on knowledge of formations being drilled and category of well

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted:

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require adoption of some Interim Report recommendations immediately

Provide a mechanism to allow rigs to remain working in the Gulf of Mexico

- Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Maintain Moratorium on "Risky Wells"

Steps to Re-Define the Moratorium to INCREASE Safety

- Allow rigs to complete the work they are currently doing
- Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)
  - 8 Recommendations Already in NTL 05
  - 5 Additional Recommendations which could be added
- Maintain the moratorium on the more risky wells
  - Remaining Recommendations requiring additional study.

Risky Wells

Exploration wells to previously undrilled strata

Deepening existing wells to previously undrilled strata

HP/HT Wells

Less Risky Wells which Can be Drilled

Listed in increasing degree of risk:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood and Gas Injection
- Development Wells to Known Reservoirs
- Workovers
- Drilling to the base of the salt section in deep exploration wells
- Delineation Wells to Non-producing Reservoirs

Wells in red above are already exempted from the moratorium by NTL 04

Conclusions

A moratorium is needed

It needs be defined taking into account ALL elements of risk, including the risks derived from the moratorium itself

Drilling can be made safer quickly by implementing many of the recommendations of the Interim Report

We should not ignore the “Four Negatives” of the moratorium

Allow drilling of “Less Risky Wells” to avoid the Four Negatives

It is justifiable to put a moratorium on “Risky Wells” to allow further thought and study

Appendices

30-Day Recommendations Already in NTL

Recommendations Which Could be Implemented But Are Not Currently in NTL

Recommendations to be Implemented After 30 Days

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all floating drilling operations will be required to have two sets of blind shear rams spaced at least 4 feet apart (to prevent system failure if drill pipe joint or drill tool is across one set of rams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical
rkgroup to develop further improvements to ROV operating capabilities
luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This “safety case” should establish risk assessment and mitigation processes to manage a drilling contractor’s controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor’s management of change (MOC) and risk assessment to the lease operator’s MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Wednesday, June 23, 2010 7:47 PM
To: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Power Point Presented to Secretary Salazar on 6/21/2010
Attachments: Presentation to Secretary of Interior - Rev 4.pptx

You are receiving this because you expressed an interest in having a copy of the subject report. DOI has been asked if they have a problem with us distributing this to whomever asks and have not expressed an objection. Those present at the meeting or by phone were the original signers of the Group of 8, plus Per Holland and Arnold Stancell. Bob Bea and Skip Ward were unable to participate. From DOI attendees beside the Secretary included David Hayes, Tom Strickland, The new Director of the MMS Mike B (please excuse my inability to spell his last name as I am traveling and don't really have time to look it up).

The people contributing to this power point besides myself are:

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The list of those getting this is as follows, but I have copied only two at a time so it is not blocked by a spam filter:

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The Secretary has expressed an interest in meeting with us in two weeks with a wider audience.

Please be advised I am in SE Asia and will return to Houston Tuesday the 30th in the afternoon. Do not call my cell phone unless it is important as it is an expensive call for me. Also I have been unable to pick up my phone messages since leaving the US. I may be able to pick them up when I leave Viet Nom for Singapore Sunday but am not sure.

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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why We Are Here
2. Putting the Risks in Context
3. Putting the Moratorium in Context
4. Measures that should be taken now to improve safety in the GOM
5. Conclusions
6. Appendices

Why Are We Here

- We are not here to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.
- We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.
- This is the time we all need to work together and we understand the job at hand.
- This is not the time to punish the innocent nor further harm the public's interest .

Why Are We Here

The moratorium as currently defined INCREASES risk when drilling is eventually resumed.

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

We believe a moratorium is needed, but we believe it can be re-defined to reduce risk

- 1. Remove requirement for stopping operations
- 2. Require the implementation of many of the recommendations of the interim report including some not already included in NTL 05.
- 3. Allow drilling of "low risk" wells to maintain GOM drilling equipment and expertise.

Putting The Risks in Context

BP Oil Spill Disaster

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

- The well design was marginal
- Human errors in judgment were made at very key operational decision points
- Warning signs were overlooked on the rig
- There may have been some failure of equipment

This was all preventable by following currently in place standard practices.

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 4000 in over 1000 feet of water.

Last major incident resulting in oil coming ashore in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.

One blowout associated with drilling. 1,688 barrels condensate spilled.

One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.

2,500 barrels crude oil spilled.

One blowout (Santa Barbara) was associated with drilling.

80,000 barrels spilled.

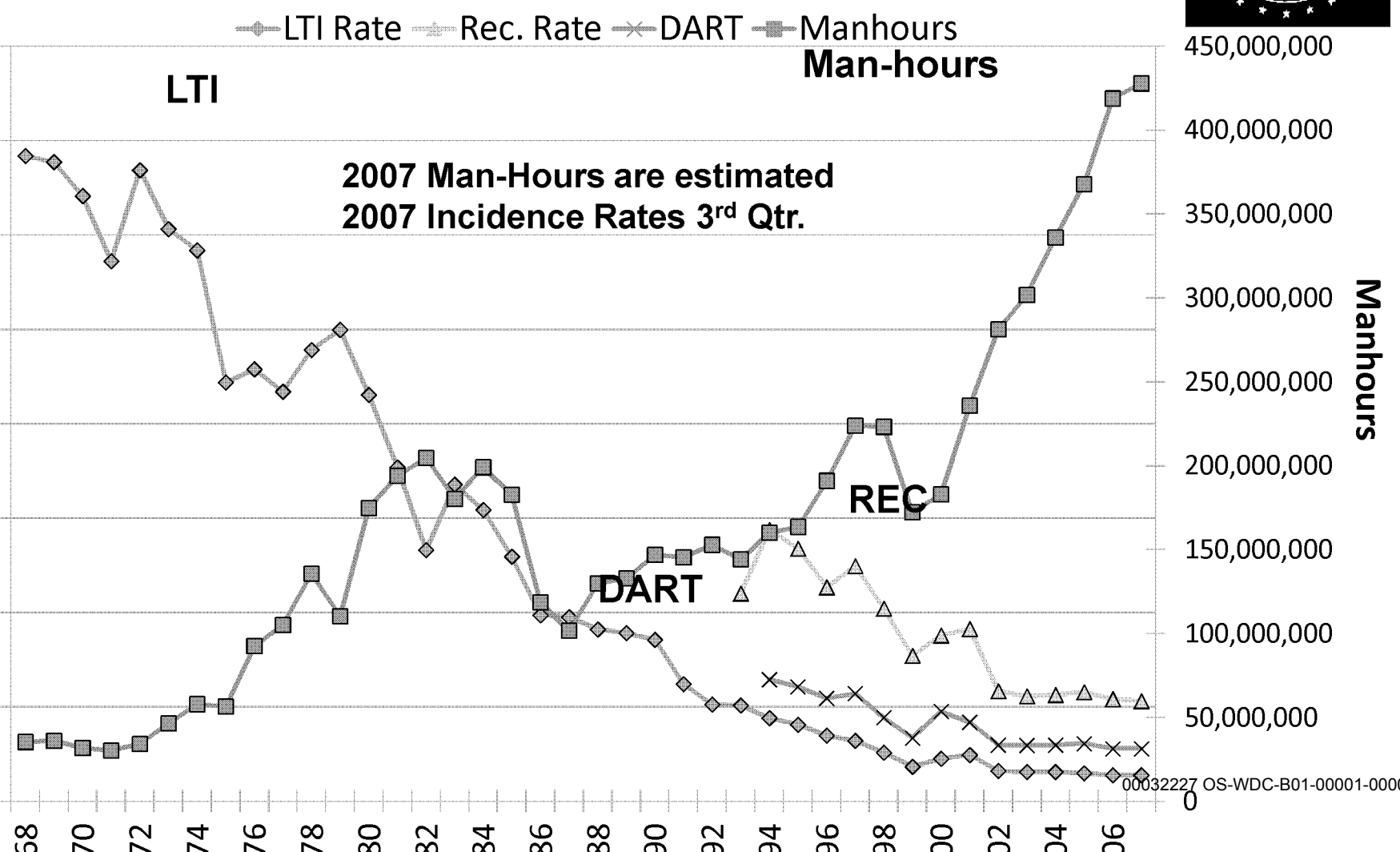
One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.

30,000 barrels crude oil spilled.

One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

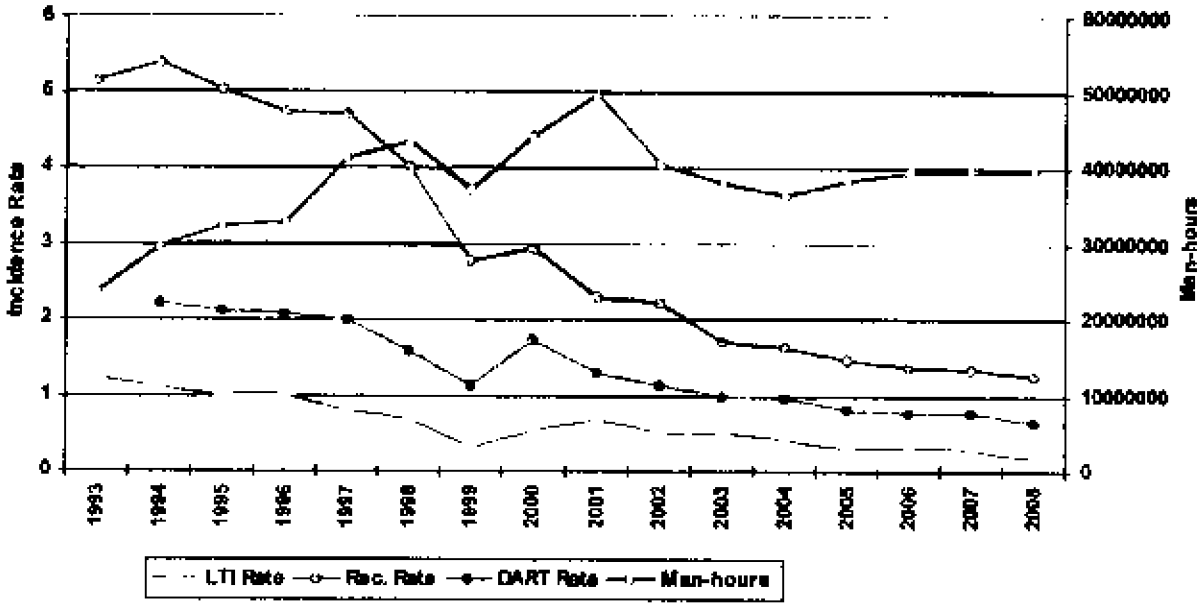
TOTAL INDUSTRY INCIDENCE RATES



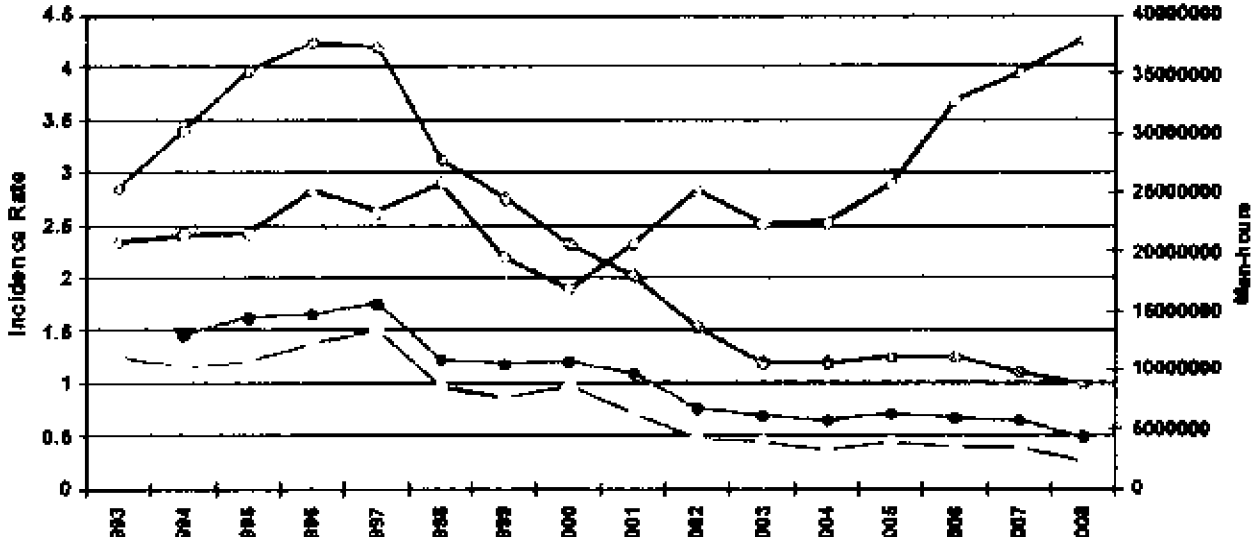
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

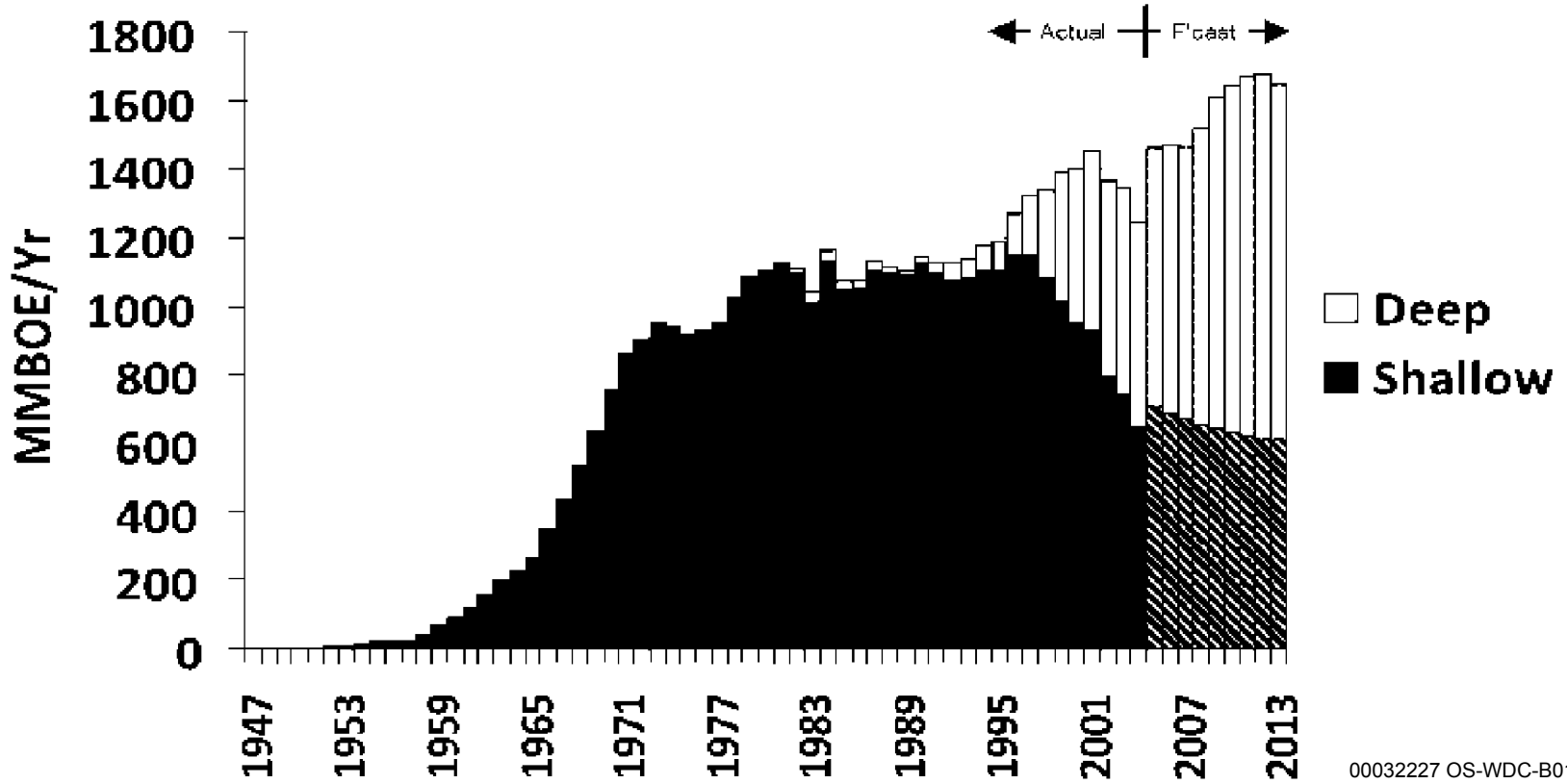


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

Understanding the Risks Summary

Even under existing conditions the record is good and improving at the same time that we are moving more and more into deep water

The Interim Report recommendations which can be implemented immediately (within 30 Days) should reduce the risk further but as the risks are low this is a marginal step

The Interim Report recommendations which take more time (up to 6 Months) should reduce the risks even further but in an even more marginal amount.

Putting the Moratorium in Context

Rationale for a Moratorium

We experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases we agreed with time frames of as long as 6 months and even in one or two cases longer. How can we face the American people and say drilling is safe before all of our own recommendations can be carried out?

By not allowing drilling until all the recommendations we told the DOI are necessary for safety are in place the DOI is honoring our technical analysis.

The “Four Negatives” of the Moratorium

The Moratorium itself increases risk by:

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

To reduce overall risk, the risk reductions which occur as a result of the Moratorium need to outweigh the added risks of the “four negatives”

As currently defined the Moratorium does not accomplish this objective

The Moratorium can be redefined to reduce risk

Effects of Stopping Operations

In any project risks are introduced when an appropriately planned operation is temporarily abandoned and then re-started at some future undetermined date.

- Macondo Well was being temporarily abandoned
- Montara Well was being re=entered after having been temporarily abandoned for four months

The Effect of the Moratorium on Rigs

- Best rigs will leave the Gulf first and come back last. This has a marginal negative impact on the overall safety of the fleet.
- Rigs will leave on long term contracts (2-5 years) and it will take a long time after the moratorium ends to get them back.
- The time to remobilize will take several additional months/years after the Moratorium is lifted and new rules in place.

Effects of Moratorium on Experienced Personnel

- Best people will leave the Gulf
- Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.
- Recruitment of new people will stop – the best and brightest do not apply for uncertain jobs
- While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "From a safety standpoint we can't afford to have a spring training."
- The industry feels the safest and most effective rig operations and personnel are being punished.

Effects of Moratorium on Tanker Spills

- Source: NRC, “Oil in the Seas”, 2003
- Data for the period 1990-1999 (no one time disaster like Exxon Valdez or BP Macondo)
- Average Best Estimate of Oil Spilled in US waters from offshore platforms and pipelines: 7,000 barrels per year
- Average Best Estimate of Oil Spilled <u>in US waters</u> from tankers: 26,000 barrels per year
  - Does not include spills from US bound tankers in foreign or international waters
  - Does not include spills from marine terminals, refineries and storage tanks
  - Does not include spills at international loading terminals or in producing the oil transported

Measures that should be taken now to improve safety in the GOM

Manage Risk

The level of risk varies significantly between well types based on knowledge of formations being drilled and category of well

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted:

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require adoption of some Interim Report recommendations immediately

Provide a mechanism to allow rigs to remain working in the Gulf of Mexico

- Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Maintain Moratorium on "Risky Wells"

Steps to Re-Define the Moratorium to INCREASE Safety

- Allow rigs to complete the work they are currently doing
- Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)
  - 8 Recommendations Already in NTL 05
  - 5 Additional Recommendations which could be added
- Maintain the moratorium on the more risky wells
  - Remaining Recommendations requiring additional study.

Risky Wells

Exploration wells to previously undrilled strata

Deepening existing wells to previously undrilled strata

HP/HT Wells

Less Risky Wells which Can be Drilled

Listed in increasing degree of risk:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood and Gas Injection
- Development Wells to Known Reservoirs
- Workovers
- Drilling to the base of the salt section in deep exploration wells
- Delineation Wells to Non-producing Reservoirs

Wells in red above are already exempted from the moratorium by NTL 04

Conclusions

A moratorium is needed

It needs be defined taking into account ALL elements of risk, including the risks derived from the moratorium itself

Drilling can be made safer quickly by implementing many of the recommendations of the Interim Report

We should not ignore the “Four Negatives” of the moratorium

Allow drilling of “Less Risky Wells” to avoid the Four Negatives

It is justifiable to put a moratorium on “Risky Wells” to allow further thought and study

Appendices

30-Day Recommendations Already in NTL

Recommendations Which Could be Implemented But Are Not Currently in NTL

Recommendations to be Implemented After 30 Days

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all floating drilling operations will be required to have two sets of blind shear rams spaced at least 4 feet apart (to prevent system failure if drill pipe joint or drill tool is across one set of rams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical
rkgroup to develop further improvements to ROV operating capabilities
luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This "safety case" should establish risk assessment and mitigation processes to manage a drilling contractor's controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor's management of change (MOC) and risk assessment to the lease operator's MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Wednesday, June 23, 2010 8:05 PM
To: Ken Arnold
Cc: Benton Baugh; Bob Bea; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams; Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Re: Power Point Presented to Secretary Salazar on 6/21/2010

Ken - thanks.

All - my cell works in Vietnam (see below) at lowish (bearable) cost. Ken and I will be at the same Society of Petroleum Engineers meeting. If you need to contact him urgently, I'll be happy to be his recording secretary.

Ford Brett

(m) +1 918 408 9516

On Jun 23, 2010, at 6:48 PM, "Ken Arnold" <karnold@karnoldconsulting.com> wrote:

> You are receiving this because you expressed an interest in having a
> copy of the subject report. DOI has been asked if they have a problem
> with us distributing this to whomever asks and have not expressed an
> objection.
> Those present at the meeting or by phone were the original signers of
> the Group of 8, plus Per Holland and Arnold Stancell. Bob Bea and
> Skip Ward were unable to participate. From DOI attendees beside the
> Secretary included David Hayes, Tom Strickland, The new Director of
> the MMS Mike B (please excuse my inability to spell his last name as I
> am traveling and don't really have time to look it up).
>
>
>
> The people contributing to this power point besides myself are:
>
>
>
> Benton Baugh (bbaugh@radoil.com)
>
> Bob Bea (bea@ce.berkeley.edu)
>
> Ford Brett (fbrett@petroskills.com)
>
> Hans Juvkam-Wold (juvkam-wold@pe.tamu.edu)
>
> Martin Chenevert (mechenevert@austin.utexas.edu)
>
> Per Holand (Per.holand@exprosoft.com)
>
> Skip Ward (egward@tamu.edu)
>
> Tom Williams (Tom.Williams@Nautilus-Int.com)
>
>

>
> The list of those getting this is as follows, but I have copied only
> two at a time so it is not blocked by a spam filter:
>
>
>
> Robert Arnold (rarnold@kprc.com)
>
> Ted Oberg (ted.oberg@abc.com)
>
> Power, Stephen [Stephen.Power@wsj.com]
>
> Naomi Lopez Bauman [(b) (6) [redacted]]
>
> V. Peyton Bruns [(b) (6) [redacted]]
>
> KENDALL KULPER, BLOOMBERG/ NEWSROOM: [kkulper1@bloomberg.net]
>
> Guarino, Mark [GuarinoM@csmonitor.com]
>
> Rosenblum, Carl [crosenblum@joneswalker.com]
>
>
>
> The Secretary has expressed an interest in meeting with us in two
> weeks with a wider audience.
>
>
>
> Please be advised I am in SE Asia and will return to Houston Tuesday
> the 30th in the afternoon. Do not call my cell phone unless it is
> important as it is an expensive call for me. Also I have been unable
> to pick up my phone messages since leaving the US. I may be able to
> pick them up when I leave Viet Nom for Singapore Sunday but am not
> sure.
>
>
>
> Kenneth E. (Ken) Arnold
>
> K Arnold Consulting, Inc.
>
> 3031 Shadowdale
>
> Houston, TX 77043
>
> Cell: 832-212-0160
>
> Home: 713-939-1034
>
> www.karnoldconsulting.com
>
>
>
>
>
> <Presentation to Secretary of Interior - Rev 4.pptx>

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Thursday, May 27, 2010 2:30 PM
To: Kemkar, Neal; Black, Steve
Cc: Bud Danenberger; Ford Brett
Subject: RE: Draft Interim Measures Report for Immediate Review

Neal and Steve

I note that the transmittal letter calls for a total suspension of drilling activities for 6 months from floating rigs. (b) (5) [redacted]

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 9:44 AM
To: Ken Arnold
Cc: Black, Steve
Subject: Draft Interim Measures Report for Immediate Review

Ken - please review the attached draft of the safety report and let us know, by later today, about any big picture thoughts or comments you have. The Secretary and White House are reviewing this draft. I will call you momentarily to discuss.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Thursday, May 27, 2010 2:37 PM
To: Kemkar, Neal; Black, Steve
Subject: RE: Draft Interim Measures Report for Immediate Review

Neal and Steve

(b) (5) [redacted].

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Thursday, May 27, 2010 1:30 PM
To: 'Kemkar, Neal'; 'Black, Steve'
Cc: Bud Danenberger (e); Ford Brett (fbrett@petroskills.com)
Subject: RE: Draft Interim Measures Report for Immediate Review

Neal and Steve

I note that the transmittal letter calls for a total suspension of drilling activities for 6 months from floating rigs. (b) (5) [redacted].

[redacted].

[redacted].

[redacted].

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 9:44 AM
To: Ken Arnold
Cc: Black, Steve
Subject: Draft Interim Measures Report for Immediate Review

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Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Saturday, May 29, 2010 9:44 PM
To: Ken Arnold
Cc: Black, Steve; Tom.Williams@Nautilus-Int.com; egward@tamu.edu; Hans Juvkam-Wold
Subject: Re: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ken et al

I just read on bloomberg that Rigs in less than 500 ft of h2o are exempt. True?

(b) (5) [redacted]?

Ford Brett

(m) +1 918 408 9516

On May 29, 2010, at 5:25 PM, "Ken Arnold" <karnold@karnoldconsulting.com> wrote:

> Steve
>
> There has been a change in plans. The current thought is to send the attached to Senator Landry and Senator Hutchinson. We have connections at both. Please note we turned down the tone.
>
> We are also in the process of gathering more signatures.
>
> Ken
>
> Kenneth E. (Ken) Arnold
>
> K Arnold Consulting, Inc.
>
> 3031 Shadowdale
>
> Houston, TX 77043
>
> Cell: 832-212-0160
>
> Home: 713-939-1034

www.karnoldconsulting.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Saturday, May 29, 2010 2:52 PM
To: 'karnold@karnoldconsulting.com'
Cc: 'fbrett@petroskills.com'; 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'
Subject: Re: [redacted] from Contributors to Secretary Salazar's 30 Day Report to The President

Thanks Ken. The Secretary is traveling this weekend, but I'd be happy to talk further. I appreciate your courtesies.

And to each of you, thanks again for your helpful work on the 30-day safety report.
Steve

<[redacted] Rev 1.docx>

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Sunday, May 30, 2010 10:21 PM
To: Black, Steve; karnold@karnoldconsulting.com
Cc: Tom.Williams@Nautilus-Int.com; egward@tamu.edu; juvkam-wold@pe.tamu.edu
Subject: RE: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Steve –

Thanks for the update – you don't need to be reading an email from me on a holiday. Hopefully, you won't see this until Tuesday. I'd like for you to know where I stand on this. (b) (5) [redacted].

[redacted]).

[redacted]

[redacted]

[redacted]

[redacted]).

[redacted]).

[redacted]

(b) (5)

[redacted]

I hope you're spending time with your family and not reading this on Memorial Day, if you happen to read this – happy memorial day to you as well.

I would like some kind of reply. Thanks for your patience.

Ford Brett

PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Sunday, May 30, 2010 8:08 PM
To: Ford Brett; 'karnold@karnoldconsulting.com'
Cc: 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'; 'juvkam-wold@pe.tamu.edu'
Subject: Re: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ford, we just put out a press release with an NTL clarifying the scope of the moratorium. Shallow water wells and certain development wells in deep water are allowed.

Have a good Memorial Day!

Steve

From: Ford Brett <FBrett@PetroSkills.com>
To: Ken Arnold <karnold@karnoldconsulting.com>
Cc: Black, Steve; Tom.Williams@Nautilus-Int.com <Tom.Williams@Nautilus-Int.com>; egward@tamu.edu <egward@tamu.edu>; Hans Juvkam-Wold <juvkam-wold@pe.tamu.edu>
Sent: Sat May 29 21:43:55 2010
Subject: Re: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ken et al

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(b) (5) [redacted]?

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(m) +1 918 408 9516

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We are also in the process of gathering more signatures.

Ken

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www.karnoldconsulting.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Saturday, May 29, 2010 2:52 PM
To: 'karnold@karnoldconsulting.com'
Cc: 'fbrett@petroskills.com'; 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'
Subject: Re: P[redacted] from Contributors to Secretary Salazar's 30 Day Report to The President

Thanks Ken. The Secretary is traveling this weekend, but I'd be happy to talk further. I appreciate your courtesies.

And to each of you, thanks again for your helpful work on the 30-day safety report.
Steve

<[redacted] Rev 1.docx>

Nguyen, Ngoc B

From: E.G.(Skip) Ward [egward@otrc.tamu.edu]
Sent: Tuesday, June 01, 2010 10:54 AM
To: 'Ken Arnold'; Black, Steve
Cc: fbrett@petroskills.com; Tom.Williams@Nautilus-Int.com; egward@tamu.edu; 'Hans Juvkam-Wold'
Subject: RE: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ken, The version prepared for the senators looks fine to me. I do wonder how this will help our plight, notwithstanding concerns re: specific senators.

I agree with the concerns Fred expressed very well in his email on 5/30/10.

Skip

E.G.(Skip) Ward, Associate Director
Offshore Technology Research Center
Texas A&M University
Tel.(979) 777-7063 (c)
Email: egward@otrc.tamu.edu

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Saturday, May 29, 2010 5:25 PM
To: 'Black, Steve'
Cc: fbrett@petroskills.com; Tom.Williams@Nautilus-Int.com; egward@tamu.edu; Hans Juvkam-Wold
Subject: RE: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Steve

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We are also in the process of gathering more signatures.

Ken

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Home: 713-939-1034
www.karnoldconsulting.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Saturday, May 29, 2010 2:52 PM
To: 'karnold@karnoldconsulting.com'
Cc: 'fbrett@petroskills.com'; 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'
Subject: Re: Potential Op Ed from Contributors to Secretary Salazar's 30 Day Report to The President

Thanks Ken. The Secretary is traveling this weekend, but I'd be happy to talk further. I appreciate your courtesies.

And to each of you, thanks again for your helpful work on the 30-day safety report.
Steve

Nguyen, Ngoc B

From: Hanley, Kallie
Sent: Monday, June 14, 2010 7:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a conference call at 4:15pm EASTERN tomorrow, June 15, 2010 regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. The Secretary would like to thank you for your contributions to the report and discuss follow-up implementation plans. This conference call is limited to the people who have received this email. Please let Lindsay Dubin (cc'd) and me know by 12:00pm EASTERN tomorrow if you will be able to participate in this call. We will send you a conference call number upon our receipt of your participation.

Thank you,

Kallie Hanley
Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Benton Baugh [bbaugh@radoil.com]
Sent: Monday, June 14, 2010 7:17 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

I will be able to participate.

Regards,

Benton F. Baugh

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

The information contained in this e-mail may contain confidential or privileged mater and is intended only for the stated addressee(s). Ifyou are not a valid addressee, the use, disclosure, copying or distribution of this information is prohibited and may be unlawful. If you have received this message in error, please notify the sender immediately and delete all copies of the message from your computer.

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

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Thank you,

Kallie Hanley
Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Monday, June 14, 2010 8:00 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

Kallie –

I will be able to attend the call.

I'm in Kuala Lumpur right now, but will be up early anyway.

Ford Brett

PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

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Thank you,

Kallie Hanley
Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Monday, June 14, 2010 9:33 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

I will be able to participate

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

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Kallie Hanley
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desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Monday, June 14, 2010 9:35 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

I am sorry. I made a mistake for some reason I thought the call was later in the day. I will be on an airplane flying from NYC to Houston which lands n Houston at 1:21 PM Houston time.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
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To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a conference call at 4:15pm EASTERN tomorrow, June 15, 2010 regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. The Secretary would like to thank you for your contributions to the report and discuss follow-up implementation plans. This conference call is limited to the people who have received this email. Please let Lindsay Dubin (cc'd) and me know by 12:00pm EASTERN tomorrow if you will be able to participate in this call. We will send you a conference call number upon our receipt of your participation.

Thank you,

Kallie Hanley
Office of the White House Liaison | The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694 | kallie_hanley@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Monday, June 14, 2010 9:38 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

Sorry once again. I now see the call is at 4:15 PM Eastern which is 3:15 Houston time. God and Continental willing I can participate.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Monday, June 14, 2010 8:35 PM
To: 'Hanley, Kallie'
Cc: 'Dubin, Lindsay'; 'Kemkar, Neal'; 'Black, Steve'
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

I am sorry. I made a mistake for some reason I thought the call was later in the day. I will be on an airplane flying from NYC to Houston which lands n Houston at 1:21 PM Houston time.

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Cell: 832-212-0160
Home: 713-939-1034
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From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

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Nguyen, Ngoc B

From: Juvkam-Wold, Hans [juvkam-wold@pe.tamu.edu]
Sent: Tuesday, June 15, 2010 3:07 AM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve; juvkamwold@gmail.com
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

All,

I plan to call in.

Hans

~~~
~~~

Nguyen, Ngoc B

From: Hanley, Kallie
Sent: Tuesday, June 15, 2010 8:17 AM
To: 'karnold@karnoldconsulting.com'
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Re: Call tomorrow 6.15.10 with Secretary Salazar

Ken,

The conference call info is below:

4:15pm EASTERN
Call in number: (b) (5)
Participant Code: (b) (5)

Best,

Kallie

From: Ken Arnold <karnold@karnoldconsulting.com>
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Sent: Mon Jun 14 21:38:27 2010
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

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Sent: Monday, June 14, 2010 8:35 PM
To: 'Hanley, Kallie'
Cc: 'Dubin, Lindsay'; 'Kemkar, Neal'; 'Black, Steve'
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

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Subject: Call tomorrow 6.15.10 with Secretary Salazar

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Nguyen, Ngoc B

From: Chenevert, Martin E [mechenevert@austin.utexas.edu]
Sent: Tuesday, June 15, 2010 11:42 AM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: RE: Call tomorrow 6.15.10 with Secretary Salazar

Dear Kallie:
I just arrived in my office. If it is still possible, please include me in this call.
Sincerely,
Martin E. Chenevert

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Monday, June 14, 2010 6:01 PM
To: Hanley, Kallie
Cc: Dubin, Lindsay; Kemkar, Neal; Black, Steve
Subject: Call tomorrow 6.15.10 with Secretary Salazar

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Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Wednesday, June 16, 2010 9:58 AM
To: Hanley, Kallie; Kemkar, Neal
Subject: Meeting Monday

Kallie

Do you have a list of those who are invited to attend Monday's meeting with the Secretary, their email addresses and phone numbers. I think it would be a good idea if we shared some information prior to the meeting.

I am arriving Sunday night. Is it possible for someone to make hotel reservations for us so we get the Government rate. If not do you have a recommendation where we can stay.

Ken

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Home: 713-939-1034
www.karnoldconsulting.com

Nguyen, Ngoc B

From: Hanley, Kallie
Sent: Wednesday, June 16, 2010 2:34 PM
To: Ken Arnold; Kemkar, Neal
Subject: RE: Meeting Monday

Hi Ken

I do not have a list of who is attending the meeting. As far as hotel reservations I believe we are legally prohibited from making reservations for you or advising you where to stay (so to avoid endorsing any accommodations).

Sorry I cannot be more helpful.

Best Regards,

Kallie Hanley
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Nguyen, Ngoc B

From: Dubin, Lindsay
Sent: Thursday, June 17, 2010 6:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a meeting at 10:00am EASTERN Monday, June 21, 2010 as a follow-up to Tuesday's conference call regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. For those of you who are unable to join this meeting in person, there will be a call-in option for you to participate remotely. This meeting/conference call is limited to the people who have received this email. Please let Kallie Hanley (cc'd) and me know by 3:00pm EASTERN tomorrow if you will be able to participate. Please be sure to indicate whether you will be attending in person or via phone. We will reach out to you with arrival instructions or a conference call number following our receipt of your participation.

Thank you,

Lindsay Dubin
Special Assistant
Office of Scheduling and Advance
The U.S. Department of the Interior
p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Thursday, June 17, 2010 6:45 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

I will attend in person. Please let me know who else was invited.

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From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

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lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Thursday, June 17, 2010 7:29 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Lindsay – I will be able to participate – let me know the dial in. I'm sorry I won't be able to attend in person.

Thanks,

Ford Brett

PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

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lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Benton Baugh [bbaugh@radoil.com]
Sent: Thursday, June 17, 2010 8:43 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

I will be attending in person.

Regards,

Benton F. Baugh

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

The information contained in this e-mail may contain confidential or privileged mater and is intended only for the stated addressee(s). Ifyou are not a valid addressee, the use, disclosure, copying or distribution of this information is prohibited and may be unlawful. If you have received this message in error, please notify the sender immediately and delete all copies of the message from your computer.

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

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p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Dubin, Lindsay
Sent: Friday, June 18, 2010 10:27 AM
To: Ken Arnold
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie; Morlandt, Christopher
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Hi Ken,

Glad to hear that you will be attending. Christopher Morlandt from the Secretary's office, who is cc'd, will be reaching out to you today with arrival instructions.

Look forward to seeing you Monday,

Lindsay

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Thursday, June 17, 2010 6:45 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

I will attend in person. Please let me know who else was invited.

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lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Morlandt, Christopher
Sent: Friday, June 18, 2010 11:10 AM
To: Ken Arnold
Cc: Hanley, Kallie; Dubin, Lindsay
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Good morning Mr. Arnold,

My name is Chris Morlandt and I will be assisting you with the entry into our building on Monday 6-21-2010. We are located at 1849 C st. NW directly across from DAR Constitution hall. I have notified our security team of your arrival and so there will be no need to sign in / go through metal detectors. I will personally meet you downstairs in our C st. lobby entrance and escort you up to the meeting. If you have any questions whatsoever -- please do not hesitate to give me a call. I look forward to meeting you on Monday and I hope you have a wonderful weekend.

Respectfully,

Chris Morlandt
(202)-257-2645

From: Dubin, Lindsay
Sent: Friday, June 18, 2010 10:27 AM
To: Ken Arnold
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie; Morlandt, Christopher
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

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lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Chenevert, Martin E [mechenevert@austin.utexas.edu]
Sent: Friday, June 18, 2010 2:40 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10
Attachments: GEST FORECASTED_ACTIVITY_11.pdf; Gulf of Mexico Analysis and Summary_updated+Sources.ppt; LMOGA.pdf; LMOGAers.pdf; NOIA.doc

Sirs:
Unfortunately I am unable to attend the meeting in person. Please provide me with the call in number.
I have attached several resources that I plan to introduce at the Monday meeting. It would be useful for Secretary Salazar to have these in hand for reference during the meeting.
Sincerely,
Martin E. Chenevert

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
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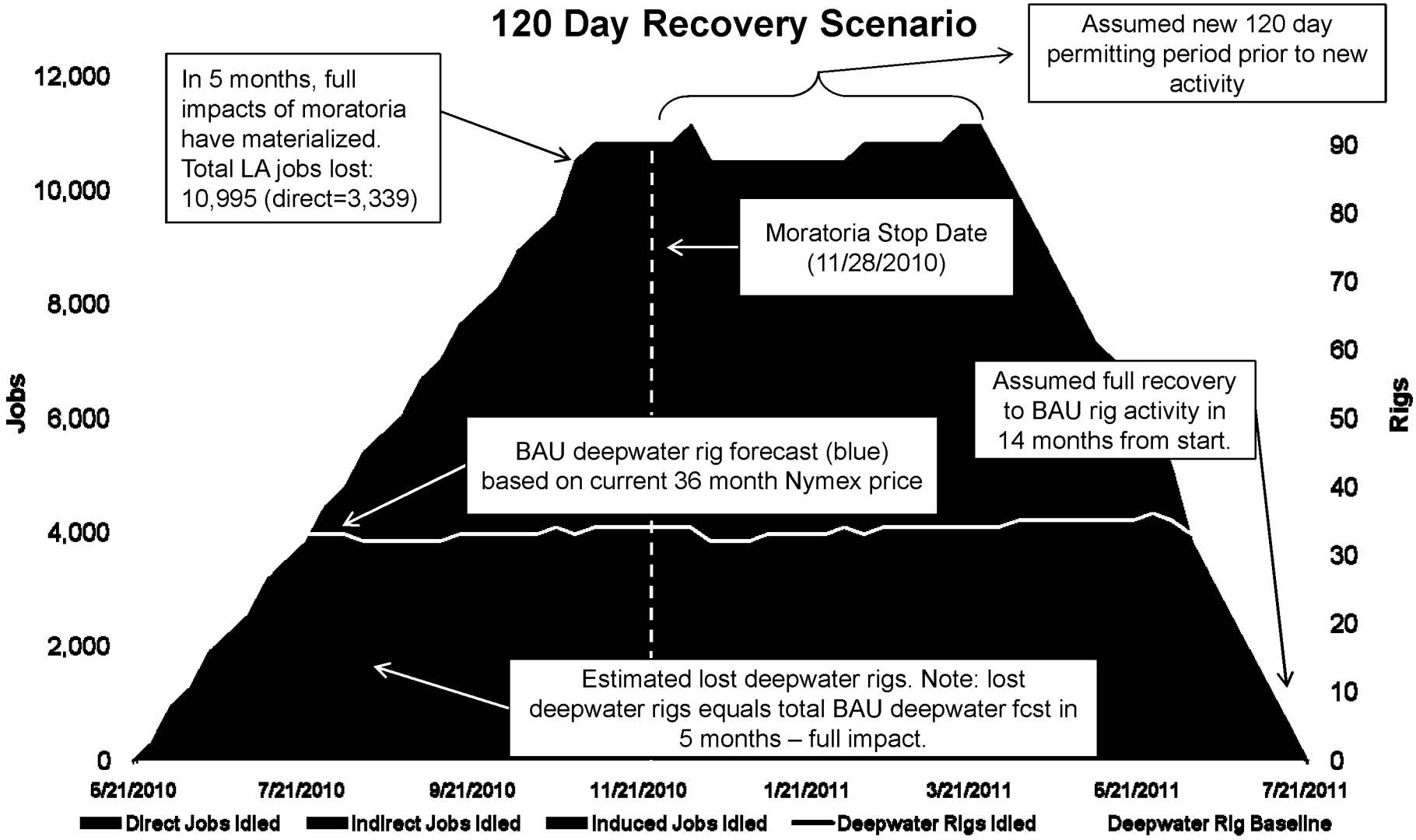
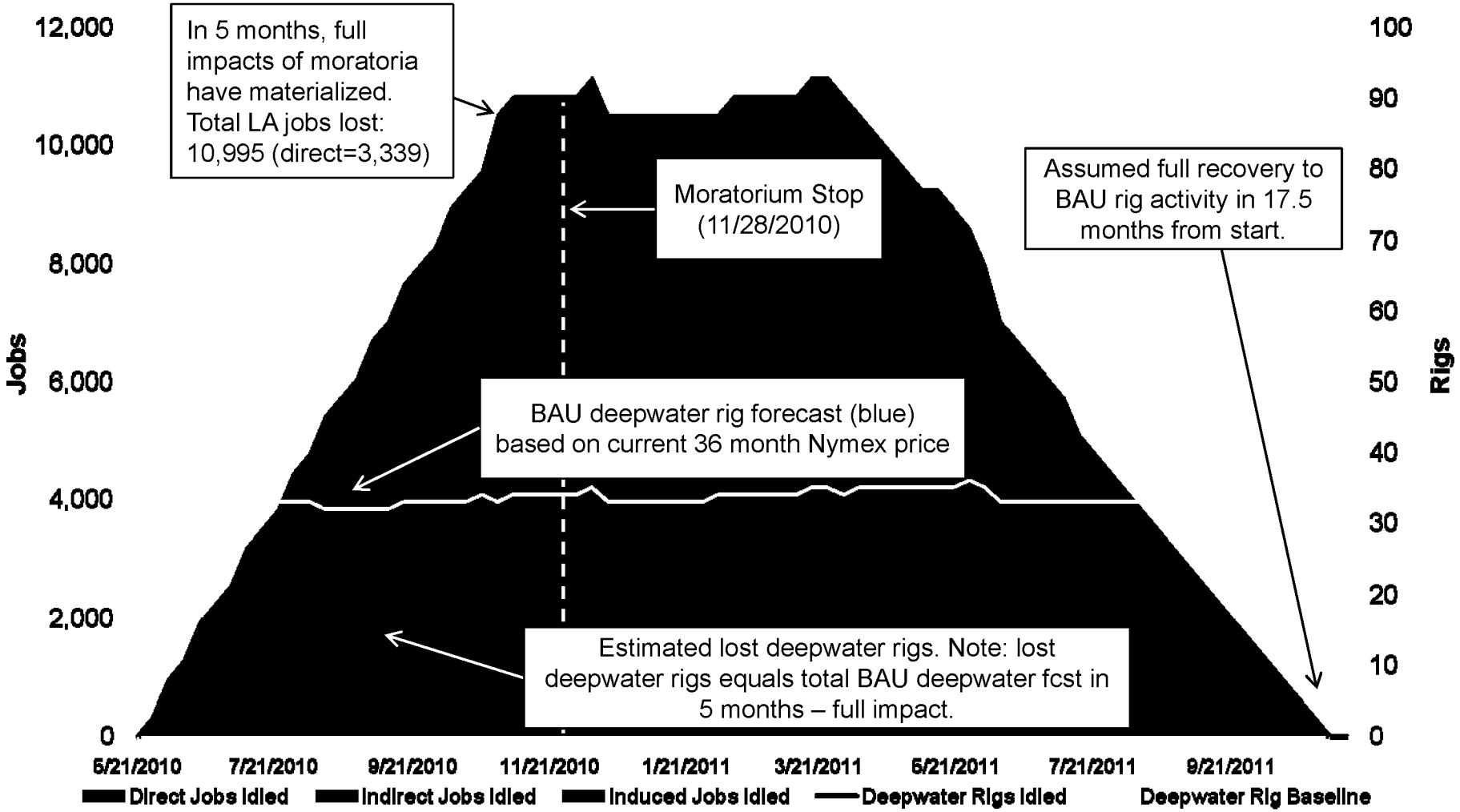
Gulf of Mexico Offshore Deepwater Moratoria Employment Impacts (Louisiana-Only)



Sources: Dept. of Interior, Energy Information Administration, Baker Hughes, CME Group (NYMEX)

Gulf of Mexico Offshore Deepwater Moratoria Employment Impacts (Louisiana-Only)

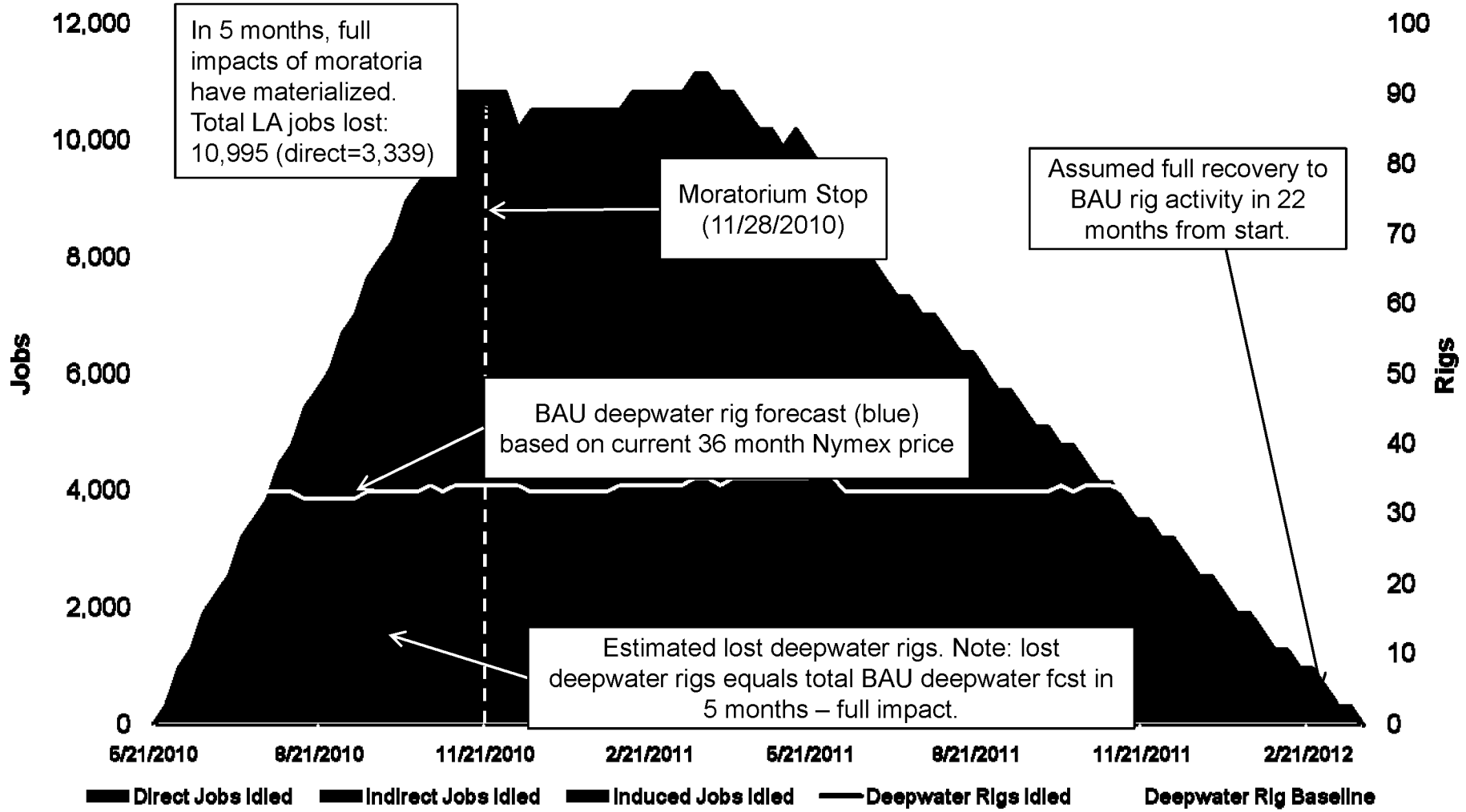
8 Month Recovery Scenario



Sources: Dept. of Interior, Energy Information Administration, Baker Hughes, CME Group (NYMEX)

Gulf of Mexico Offshore Deepwater Moratoria Employment Impacts (Louisiana-Only)

1 Year Recovery Scenario



Sources: Dept. of Interior, Energy Information Administration, Baker Hughes, CME Group (NYMEX)

Gulf of Mexico Analysis & Summary

- Gulf States Economic Sector Analysis
- Summary of Third Party Production Analyses and Economic

Gulf States* GDP Contributions

Bureua of Economic Analysis	Real GDP Millions of Chained 2000 $			
	2004	2005	2006	2007
Tourism Related				
Accomodation	16,058	16,643	16,812	17,046
Amusement, gambling, and recreation	11,930	12,245	12,630	13,010
Food services and drinking places	33,957	35,317	36,726	37,630
Tourism Total	61,945	64,205	66,168	67,686
Oil and gas extraction	48,600	44,134	46,397	46,271
Forestry, fishing, and related activities	5,446	5,851	5,775	5,558
Total	115,991	114,190	118,340	119,515

GDP by NAICS Classifications**

Data Considerations:

- **State level data is only available through 2007**
- **Bureau of Economic Analysis Data can only be pulled under certain categories**
  - **Oil and Gas extraction includes both onshore and offshore development**
  - **Individual fishing data is not available, included in data segment shown**
  - **No separate tourism category available, must be assembled from separate groups**

*Alabama, Florida, Louisiana, Mississippi, & Texas

**North America Industry Classification System definitions in backup

Deepwater Drilling Halt
Production Impact – 3rd Party Analysis

80% of the Gulf of Mexico's oil and 45% of its natural gas is from deepwater operations (more than 1000 feet of water).[1]

LMOGA estimates show the six-month halt would defer 4% of anticipated 2011 deepwater Gulf of Mexico production (80,000 bbls per day), and likely render seven current discoveries sub-economic.[2]

A 6 month halt in new drilling would defer 80,000 boe/d, or 4% of 2011 deepwater Gulf of Mexico production.[3]

Delays in current project timeframes potentially defer over 350,000 boe/d (almost 19%) of 2015 and 2016 deepwater Gulf of Mexico production.[3]

Deferred production begins to recover in 2019. However, we can assume that the slowdown in activity rates might also defer exploration activity, thereby pushing back production from Yet-to-Find fields. The overall effect could be to defer expected production over the next 10 years by significant amounts.[3]

We have included the following delays to Probable Developments: one year for near-term projects; two years for projects that are either more challenging (for example, Lower Miocene or Lower Tertiary), or those that are at an early stage of appraisal.[3]

According to IHS data, US GOM production accounted for 30% of 2009 crude oil production (1.6 MBD out of 5.3 MBD). This 1.6 MBD of Gulf supply was the result of a 33%, or 399,000 barrels per day, increase in output from 2008. Most of the production increase was due to new production from 5 deepwater fields.[4]

The fall in US demand was the most important factor that reduced US foreign oil imports in 2009, but higher domestic production, mostly from deepwater, also played a role.[4]

Deepwater Drilling Halt
Economic Impact – 3rd Party Analysis

- Between $250,000 and $500,000 per rig, per day results in roughly $8,250,000 to $16,500,000 per day in costs for the 33 idle rigs[1]
- Each drilling platform supports 800 to 1400 jobs at risk per idle rig[1]
- The average wage for these jobs is $1,800 per week; the potential for lost wages is between $5,000,000 and $10,000,000 for one month for each drilling platform[1]
- A 6 month halt in drilling could result in total lost wages of between $990,000,000 and $1,800,000,000 for all 33 platforms[1]
- In Louisiana alone there could potentially be 3,000 to 6,000 lost jobs in the next two to three weeks and over 10,000 jobs lost in the coming months[5]

Deepwater Drilling Halt
Cost Impact – 3rd Party Analysis

Higher drilling costs might jeopardize exploration in frontier areas. More immediately, we estimate that seven current discoveries could be rendered sub-economic, putting $7.6 billion in future government revenues at risk.[3]

If tightened regulation and new drilling practices cause longer drill times, both exploration and development well costs will increase. Driving up exploration costs in frontier areas that are already economically marginal could dampen appetites for exploring these areas, which are vital for long-term output from deepwater GOM.[3]

Another threat to smaller companies is the proposal floated in Washington DC to increase the cap on oil companies' liability for oil spill damages from $75 million to $10 billion. Higher insurance bills following the hurricane season of 2005 had already chased some smaller companies off the GOM shelf.[3]

At the time of the blowout there were 67 rigs active in the GOM, both jackup rigs (37 rigs) and semisubmersibles or drill ships (30 rigs). The total semisubmersible GOM fleet is 30 rigs, the moratorium will affect 16 rigs and will leave only 14 actively drilling for production.[4]

The impact of 16 additional rigs coming onto the market looking for opportunities to keep rigs and crews active is likely to depress rig rates (likely drop 10% by third quarter 2010 and potential to drop up to 20% in day rates).[4]

Backup

Oil and Gas Economic Data

Bureau of Economic Analysis – Oil and Gas extraction includes both onshore and offshore development

211 Oil and Gas Extraction*

Industries in the Oil and Gas Extraction subsector operate and/or develop oil and gas field properties. Such activities may include exploration for crude petroleum and natural gas; drilling, completing, and equipping wells; operating separators, emulsion breakers, desilting equipment, and field gathering lines for crude petroleum and natural gas; and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This subsector includes the production of crude petroleum, the mining and extraction of oil from oil shale and oil sands, and the production of natural gas, sulfur recovery from natural gas, and recovery of hydrocarbon liquids.

Establishments in this subsector include those that operate oil and gas wells on their own account or for others on a contract or fee basis. Establishments primarily engaged in providing support services, on a fee or contract basis, required for the drilling or operation of oil and gas wells (except geophysical surveying and mapping, mine site preparation, and construction of oil/gas pipelines) are classified in Subsector 213, Support Activities for Mining.

07 North America Industry Classification System codes for data

Bureau of Economic Analysis – Individual fishing data is not available: it is included within data segment incorporating the following three sectors

113 Forestry and Logging*

Industries in the Forestry and Logging subsector grow and harvest timber on a long production cycle (i.e., of 10 years or more). Long production cycles use different production processes than short production cycles, which require more horticultural interventions prior to harvest, resulting in processes more similar to those found in the Crop Production subsector. Consequently, Christmas tree production and other production involving production cycles of less than 10 years, are classified in the Crop Production subsector.

114 Fishing, Hunting and Trapping*

Industries in the Fishing, Hunting, and Trapping subsector harvest fish and other wild animals from their natural habitats and are dependent upon a continued supply of the natural resource. The harvesting of fish is the predominant economic activity of this subsector and it usually requires specialized vessels that, by the nature of their size, configuration and equipment, are not suitable for any other type of production, such as transportation.

115 Support Activities for Agriculture and Forestry*

Industries in the Support Activities for Agriculture and Forestry subsector provide support services that are an essential part of agricultural and forestry production. These support activities may be performed by the agriculture or forestry producing establishment or conducted independently as an alternative source of inputs required for the production process for a given crop, animal, or forestry industry. Establishments that primarily perform these activities independent of the agriculture or forestry producing establishment are in this subsector.

07 North America Industry Classification System codes for data

Tourism Economic Data

Bureau of Economic Analysis – Individual data available that will include tourism: no separate tourism category available

713 Amusement, Gambling, and Recreation Industries*

Industries in the Amusement, Gambling, and Recreation Industries subsector (1) operate facilities where patrons can primarily engage in sports, recreation, amusement, or gambling activities and/or (2) provide other amusement and recreation services, such as supplying and servicing amusement devices in places of business operated by others; operating sports teams, clubs, or leagues engaged in playing games for recreational purposes; and guiding tours without using transportation equipment.

721 Accommodation*

Industries in the Accommodation subsector provide lodging or short-term accommodations for travelers, vacationers, and others. There is a wide range of establishments in these industries. Some provide lodging only; while others provide meals, laundry services, and recreational facilities, as well as lodging. Lodging establishments are classified in this subsector even if the provision of complementary services generates more revenue. The types of complementary services provided vary from establishment to establishment.

722 Food Services and Drinking Places*

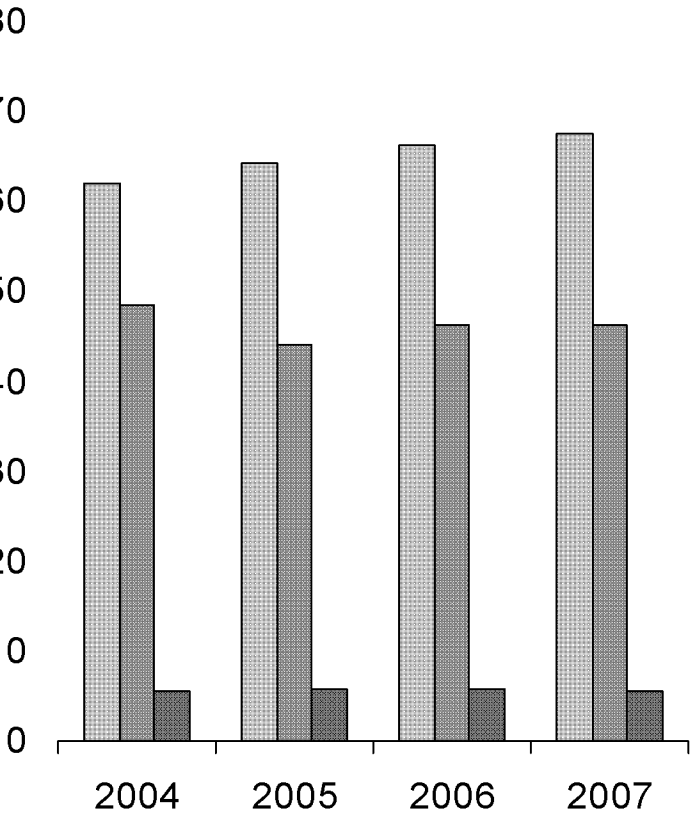
Industries in the Food Services and Drinking Places subsector prepare meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption. There is a wide range of establishments in these industries. Some provide food and drink only; while others provide various combinations of seating space, waiter/waitress services and incidental amenities, such as limited entertainment. The industries in the subsector are grouped based on the type and level of services provided. The industry groups are full-service restaurants; limited-service eating places; special food services, such as food service contractors, caterers, and mobile food services; and drinking places.

07 North America Industry Classification System codes for data

Gulf States* GDP Contributions

DP Contributions by Industrial Category

lion 2000 $



- **Tourism Related Activities**
  - NAICS** code 713, 721 and 722
    - Amusement, Gambling and Recreation Services
    - Accommodation
    - Food Services and Drinking Places
- **Oil and Gas Extraction**
  - NAICS** code 211
    - Crude Petroleum and Natural Gas Extraction
    - Natural Gas Liquid Extraction
- **Forestry, Fishing, and Related Activities**
  - NAICS** codes 113 through 115
    - Forestry and Logging
    - Fishing, Hunting and Trapping
    - Support Activities for Agriculture and Forestry

abama, Florida, Louisiana, Mississippi, & Texas

Resources:

1. *Louisiana Mid-Continent Oil and Gas Association*

- **The Energy Sector: Still A Giant Economic Engine for The Louisiana Economy**
  The Louisiana Oil and Gas Industry has a $70 billion impact upon the state, according to an economic study conducted by Dr. Loren Scott on behalf of the Louisiana Mid-Continent Oil and Gas Association. The most recent study shows that each petroleum industry job supports 4.5 additional jobs in the state. The industry pays $1.4 billion in state taxes and fees and more than $4 billion in wages.

- http://www.lmoga.com/overview.html

- http://www.lmoga.com/erfull.pdf

- http://www.lmoga.com/ers.pdf

2. *National Ocean Industries Association*

- http://www.noia.org/website/article.asp?id=38566

Resources:

NOIA site:
http://video.nytimes.com/video/2010/06/11/us/1247468032713/the-roughnecks-lament.html

3. Wood MacKenzie: *Deepwater Horizon* tragedy: near-term and long-term implications in deepwater Gulf of Mexico* Contact Information:

- julie.wilson@woodmac.com +1 713 470 1627
- john.dean@woodmac.com +1 713 470 1688
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4. CERA: *Oil Well Blowout and the Future of Deepwater E&P* and *The Gulf of Mexico Blowout**

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Fax: +1 713-599-9111

ailable by subscription

Resources:

5. Louisiana Department of Economic Development

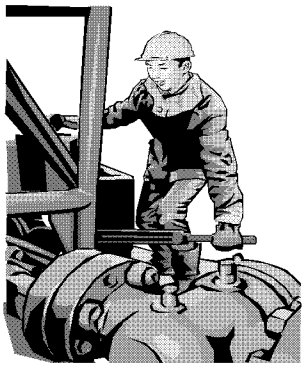
- http://emergency.louisiana.gov/Releases/06102010-moratorium.html

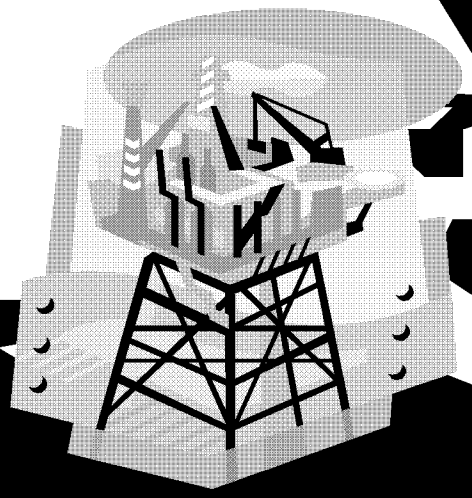
Bureau of Economic Analysis: GDP by Region

- http://www.bea.gov/regional/gsp/

The Energy Sector:

Still A Giant Economic Engine For The Louisiana Economy





By Loren C. Scott, Ph.D.

September 2007

THE "ENERGY" SECTOR: STILL A GIANT ECONOMIC ENGINE FOR THE LOUISIANA ECONOMY

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EXECUTIVE SUMMARY

This study is an update of a study done for Mid-Continent Oil and Gas in 2002 entitled, "The 'Energy Sector': A Giant Economic Engine for the Louisiana Economy." Our conclusions from this review of the impact of the extraction, refining, and pipeline industries can be summarized in a series of bullet points:

- Louisiana, through the luck of natural resource distribution, is the nation's **number one producer of crude oil and the number two producer of natural gas** among the 50 states.

- Louisiana ranks **number two among the states in petroleum refining** capacity.

- There are over **83,000 miles of pipelines** transporting crude petroleum and natural gas within the state and in its offshore area of the Gulf of Mexico.

- Through both their direct and multiplier effects **these three industries supported $70.2 billion in sales in Louisiana firms, generated over $12.7 billion in household earnings for Louisianans, and supported 320,280 jobs in the state in 2005.** The $12.7 billion in earnings represented 15.4 percent of total earnings in Louisiana in that year. At least four countries listed in the **Statistical Abstract of the U.S.** have smaller gross domestic products.

- On average **the job multiplier for these two industries was 5.5**. That is, for every job created in these sectors 4.5 additional jobs are created in other sectors in the state. The job multiplier for the oil and gas extraction industry is about 3.9 and for the very capital-intensive refinery industry it is about 11.7.

- These three industries **directly paid over $1.4 billion in state taxes and fees** in FY06, or about 14.4 percent of total state taxes, licenses, and fees collected.

- A very conservative estimate is that these three industries paid **$172.6 million in ad valorem taxes to local governments** in the state in 2005. In 31 of the state's 64 parishes, these ad valorem taxes exceeded $1 million. In 12 parishes the number exceeded $5 million.

- Through the $12.7 billion in household earnings generated by these three industries, **state government was able to collect an estimated $890,939,000 in taxes in FY06.**

- The $12.7 billion in household earnings generated by these three industries added approximately **$560,018,800---over one half billion dollars---to the treasuries of local governments** in FY06.

- In 2006, there were **58,278 workers employed** in the extraction, pipeline, and refining industries---a number approximately equivalent to the 2005 population of Acadia Parish, the 19th most populous parish in the state. Fifty-four of Louisiana's 64 parishes had total covered employment smaller than this number in 2005.

- These three industries paid nearly **$4.2 billion in wages** for Louisiana households in 2006---a figure equivalent to 6.4 percent of total covered wages in the state that year.

- In the third quarter of 2006, the average weekly wage in Louisiana's manufacturing sector was $984. **In refining it was 59 percent higher at $1,567 and the extraction sector paid $1,804 weekly---83 percent higher than the average in manufacturing. Weekly wages in the pipeline industry were $1,345---37 percent higher than the average manufacturing wage.**

- **Energy jobs and earnings are found in all of Louisiana's 64 parishes in 2006**. There were 14 parishes where more than 1,000 workers were employed in these three industries. In Lafayette Parish (the highest employment parish), 15,241 workers were directly employed in these energy sectors.

- Value added is a broader measure of the total income created directly in an industry. In 2002 (latest data available), **Louisiana's oil and gas extraction sector produced over $24.6 billion in total income**. That figure exceeds the **sum** of all the state's manufacturing sectors except petroleum and coal products. We have roughly estimated the extraction sector's value added in 2005 (when energy prices were much higher than 2002) to be about $47.5 billion.

- The refining sector's value added in 2005 was a huge $34.3 billion. That figure exceeds the **sum** of all the state's other manufacturing sectors.

THE "ENERGY" SECTOR: STILL A GIANT ECONOMIC ENGINE FOR THE LOUISIANA ECONOMY

I. Introduction: It's the Engine That Matters

Survey car owners and you will find a consensus on one issue: It is the engine that makes the difference. A weak, undependable engine gets you nowhere. It is a drag on your attempts to get things done. On the other hand a strong, powerful engine gets you where you need to go quickly and dependably. Much gets accomplished.

In the world of economics, some states have only weak engines for economic growth. Their basic industries are either non-existent or are made up of slow-growing, low-wage manufacturing firms. These states are doomed to remain at the bottom rung of the economic ladder, and their prospects for growth are lackluster at best. Examples would be the states of Arkansas and West Virginia.

Other states, either because of the sheer luck of the draw in resource distribution and/or because of innovative development policies, have attracted industries that are veritable dynamos of energy---creating high-wage jobs and spillover business for all kinds of firms. These states not only enjoy the benefits of healthy jobs and income, but also state and local government treasuries get a boost from taxes and fees these industries generate both directly and indirectly.

Louisiana Was Lucky

When it came to the geographical distribution of natural resources, Louisiana "won the flip"so to speak. Below her borders, and in the waters of the adjoining Gulf of Mexico, lies a virtual mother-lode of oil and natural gas. Table 1 details Louisiana's oil production relative to her sister states. **Louisiana is the nation's number one producer of oil, producing nearly 1.4 million**

barrels a day in 2007 (this figure includes the federal outer continental shelf production). This represents 26.4 percent of the nation's crude oil production, just ahead of Texas, with Alaska in a distant third place.[1]

Louisiana was ranked third in this category back in 1995, behind both Texas and Alaska. However, declining reserves in those two states, coupled with larger finds in Louisiana's offshore region, have pushed Louisiana up to the number one slot.

Table 1
Crude Oil & Lease Condensate Production in U.S.: 2007
(1,000 Barrels per Day)

Area	Production	Percent U.S.
United States	5,164	100.0%
Louisiana*	***1,362***	***26.4%***
Texas	1,317	25.5%
Alaska	778	15.1%
California	669	13.0%

*Includes Federal offshore production

The U.S. is also heavily reliant on Louisiana as a source of natural gas. As Table 2 shows, **nearly a fifth of the nation's natural gas comes from Louisiana**. Our state's production of nearly 6.2 trillion cubic feet in 2005 (including federal OCS) ranked it number two behind Texas. **Actually, the value of natural gas produced in Louisiana exceeds the value of the crude oil lifted.**

Table 2
Marketed Value of Natural Gas in U.S.: 2005
(Billions of Cubic Feet)

Area	Production	Percent U.S.
United States	18,951	100.0%
Texas	6,220	32.8%
Louisiana*	***3,471***	***18.3%***
Oklahoma	1,670	8.8%
New Mexico	1,645	8.7%

*Includes Federal offshore production. Source: http://tonto.eia.doe.gov/dnav/ng/hist and http://dnr.louisiana.gov.

Refineries

The tasks of exploring for and lifting these two resources to the surface---what economists label oil and gas extraction---have created thousands of jobs and billions in household income for Louisianans each year. It has also attracted closely related industries to the state as well. For example, **Louisiana ranks number two among the 50 states in petroleum refining capacity** (see Table 3). Louisiana ranks below Texas and ahead of California by this measure.

Table 3
Petroleum Refining Capacity: 2006
(Millions of Barrels per Calendar Day)

Area	Refinery Capacity	Number	Percent U.S.
United Sates	17.370	149	100.0%
Texas	4.678	26	27.0%
Louisiana	*2.901*	*16*	*16.7%*
California	2.027	21	11.7%
Illinois	0.904	4	5.2%

Source: http:/tonto.eia.doe.gov/state/state_energy_profiles

It is interesting to note that our refining industry is quite different from that of California. California uses 21 refineries to refine its 2.0 million barrels of crude a day. Louisiana, on the other hand, uses 16 refineries to handle 45 percent more crude per day (2.9 million barrels). California refines its crude in relatively small refineries. Louisiana uses much larger refineries. Indeed, the ExxonMobil refinery in Baton Rouge is the second largest refinery in the country and the tenth

largest in the world.[2] In addition, California refineries serve only California, while Louisiana refineries serve Louisiana, Texas, Mississippi, Illinois and the eastern seaboard.

Pipelines

A second closely related industry to oil and gas extraction is the **pipeline industry**. Because pipelines are effectively hidden from view, Louisianans are little aware of the massive amount of oil and gas products that move underground in this state. Consider these figures:

- There are 41,320 miles of pipelines in onshore Louisiana.[3] These pipelines carry crude oil, natural gas, petrochemical products, LPG/NGL, and refined products.
- There were 41,689 miles of pipelines in offshore Louisiana, outside the state's jurisdictional boundaries.[4]

These 83,009 miles of pipelines are the ones for which reasonable data are available because they fall under direct state or federal regulation. These do not include the thousands of miles of flow lines and gathering lines that move gas and oil from the wellhead to separating facilities; nor do they include pipelines transporting chemical products with no petroleum base. It is believed that the pipeline industry may be at least twice as large as the numbers in the bulleted points above.

The Trip Ahead

How has such a massive industry affected the economic lives of Louisiana citizens? If the extraction, refining, and pipeline industries are lumped under one heading---the energy industry---has it been a weak or powerful economic engine? Has the whole state benefited from its presence, or have any economic effects been limited to only a few parishes? Are the multiplier effects on other industries in Louisiana small or large? Has the industry's impact on state and local treasuries been trivial or significant?

These are the topics covered in the sections to follow. Section II is devoted to the direct income and employment effects of the energy industry. How many people are employed in it and what is the nature of the wages paid its employees? Section III uses an input/output table to estimate the multiplier impacts of the energy industry. In which sectors are employees benefiting the most from these possible spillover effects? In section IV, the contribution to state and local treasuries is measured along with a discussion of the ten-year industrial tax exemption program. Section V presents tantalizing evidence about remarkable technological changes in these industries. Section VI contains the summary and conclusions. Appendix A contains an analysis of the impact of Hurricanes Katrina and Rita on the industry and its record of recovery from those two horrendous storms.

II. The Direct Employment and Income Impacts

A helpful way to think about an industry's impact on a state is to think of the state's economy like a large economic pond. Into this pond we are going to drop a rock labeled "oil and gas extraction, refining and pipeline industries". Would such a rock make much of a splash in the pond? It is these **direct impacts** that we attempt to measure in this section. In section III, we will examine the extent of the ripples (the multiplier effects) this rock makes in the pond as the ripples work their way to the shore.

"Covered" Employment and Wages

By far the most detailed and reliable information on employment and wages in these three industries are the data gathered by the Louisiana Department of Labor on "covered" employees, i.e., covered by unemployment compensation regulations. Because of legal reporting requirements, detailed data are available down to the parish level in most cases.

Covered Employment

Table 4 contains information on covered employment and annual wages paid in these four energy industries. **In 2006, there were 58,278 covered workers employed in the oil and gas extraction, support activities for mining, refining, and pipeline industries.**[5] To get some idea of the relative size of this number, in 2006 fifty-four of Louisiana's 64 parishes had total covered employment less than 58,278.[6] **The number of persons employed in these industries is approximately equivalent to the 2005 population of Acadia Parish (latest data available), the 19th most populous parish in the state.**[7]

Table 4
Employment and Annual Wages Paid
in Petroleum-Related Industries: Louisiana
2006

Sector	Employment[a]	Annual Wages Paid[b]
Oil & Gas Extraction	7,508	$78,260,409
Support Activities for Mining	38,050	2,305,704,812
Petroleum Refining[c]	10,350	905,228,136
Pipelines	2,370	171,704,658
TOTAL	**58,278**	**$4,170,898,015**

Source: www.Laworks.net. Go to LMI section. [a]Third quarter data. [b]Annual estimate based on three quarters of data. [c]Data are for "petroleum & coal products" sector which is 98 percent petroleum refining.

Covered Annual Wages

What is more remarkable is the impact of these three industries on the incomes of Louisianans who work in these four sectors. According to the data in Table 4, **these three industries generated nearly $4.2 billion in covered wages for these workers in 2006.** These four industries, through their direct effects alone, **generated 6.4 percent of the total covered wages earned in Louisiana in 2006.**[8]

Comparative Weekly Wage Rates

One reason these annual wage numbers are so large is because these four sectors are some of the highest wage industries in the state. Table 5 provides data on the average weekly earnings in these four sectors and Louisiana's manufacturing industries in the third quarter of 2006.

Table 5
Average Weekly Wage – Third Quarter 2006
Louisiana Petroleum-Related Industries & Manufacturing

Sector	Average Weekly Wage
Oil & Gas Extraction	*$1,804*
Petroleum & Coal Products(98% Refinery)	*1,567*
Chemicals & Allied Products	1,499
Pipeline Transportation	*1,345*
Paper Manufacturing	1,213
Support Activities for Mining	*1,209*
Transportation Equipment	1,073
Primary Metals Manufacturing	1,019
Computers & Electronics	927
Machinery Manufacturing	908
Fabricated Metals	810
Non-metallic Minerals	750
Plastics & Rubber Products	727
Wood Products	710
Beverage & Tobacco Products	672
Printing & Related Products	626
Food manufacturing	595
Miscellaneous Manufacturing	527
Furniture Manufacturing	509
Textile Products	472
Apparel Products	440
Average Manufacturing Wage	$984
Average Wage in All Sectors	$683

Source: www.Laworks.net. Go to LMI section.

Note that the oil and gas extraction and refining sectors rank #1 and #2, respectively among the industries listed, with pipeline wages ranking #4 and support activities for mining ranking #6.

Oil and gas extraction's weekly wage of $1,804 is a whopping 83 percent higher than the average wage in manufacturing ($984). Even more telling is that oil and gas extraction wages are almost triple the average wage earned by a Louisiana worker ($683 per week). Refining wages are 59 percent higher than the average manufacturing wage. Both oil and gas extraction and refining are unusually capital-intensive industries requiring very skilled labor for their operations.

Our review of the direct wage and employment impacts of these industries reveal something important about the energy sector. This economic engine is far from small. **It has been a powerful factor for creating thousands of high-wage jobs in Louisiana.**

Job Distribution across the State

Have the benefits of these excellent jobs been narrowly confined to just one area of the state, or have they been more widely distributed across Louisiana? One advantage of the covered employment data is they are available by parish, except where disclosure rules prevent their release.

Table 6 contains the distribution of reporting units, employment, and annual wages paid in the three energy industries by parish for 2000. The data to construct this table were provided by the Research and Statistics Unit of the Louisiana Department of Labor. The Department cannot release data at the parish level unless there are a minimal number of reporting units. Too few a number of reporting units kicks in "disclosure rules" which ensure that an individual firm's employment and wage data cannot be identified.

The most important message from Table 6 is that the benefits of the energy sector are widespread across Louisiana. **Energy jobs and income are found in all of Louisiana's 64 parishes in 2006.** There were 14 parishes where more than 1,000 persons were employed in the energy sector, and in Lafayette Parish there were 15,241 persons working directly in the energy

sector. There were 12 parishes where between 300 and 999 persons were directly employed in the energy sector.

Table 6

Number of Reporting Units, Employment, and Annual Wages in
Oil and Gas Extraction, Refining and Pipeline Industries by Parish: 2006

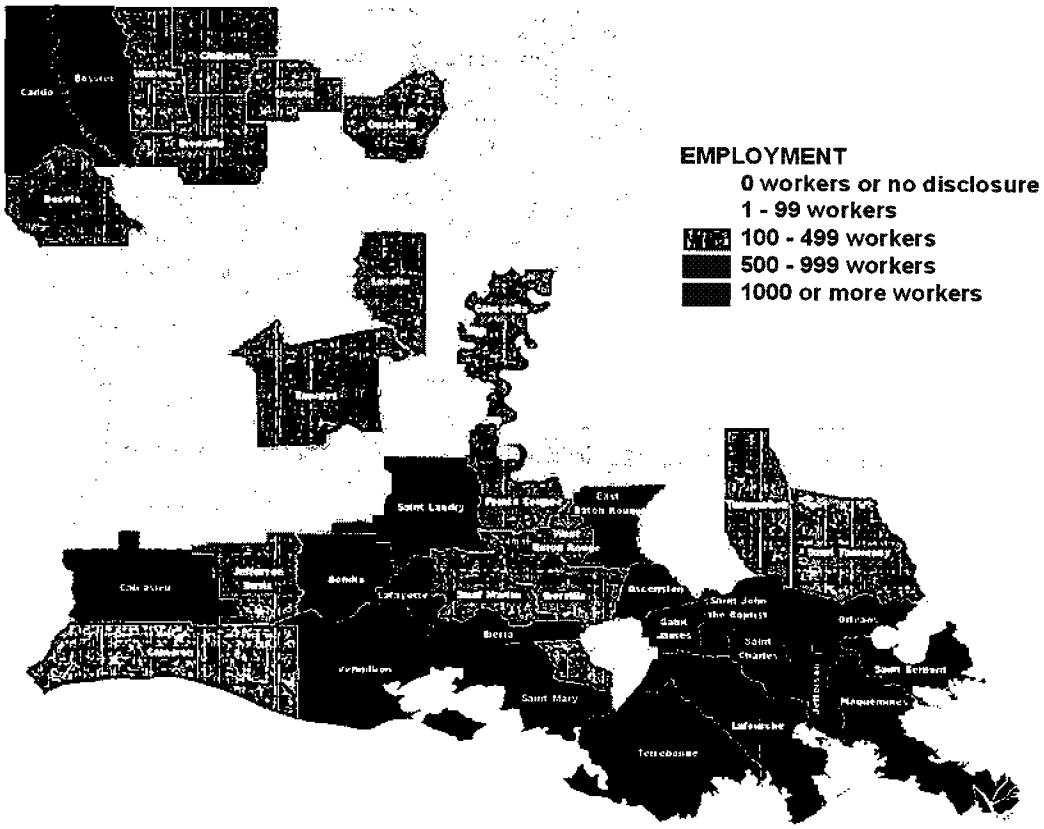
Parish	Units	Employment	Annual Wages
Acadia	45	742	$ 43,795,076
Allen	3	90	$ 6,036,364
Ascension	14	814	$ 56,678,332
Assumption	9	32	$ 2,271,676
Avoyelles	8	19	$ 440,164
Beauregard	8	70	$ 4,523,740
Bienville	16	167	$ 10,052,988
Bossier	39	1,265	$ 73,155,980
Caddo	206	2,413	$ 124,379,924
Calcasieu	62	3,762	$ 256,365,956
Caldwell	6	57	$ 3,704,524
Cameron	26	235	$ 15,521,964
Catahoula	7	47	$ 1,270,316
Claiborne	19	323	$ 15,348,264
Concordia	10	195	$ 10,696,824
Desoto	14	314	$ 16,687,036
E. Baton Rouge	55	2,339	$ 188,105,124
E. Carroll	4	3	$ 206,572
E. Feliciana	3	30	$ 1,961,976
Evangeline	8	24	$ 543,192
Franklin	3	19	$ 1,213,816
Grant	2	2	$ 29,024
Iberia	60	3,127	$ 201,898,428
Iberville	11	200	$ 9,020,768
Jackson	2	18	$ 1,807,424
Jefferson	83	2,315	$ 163,093,552
Jefferson Davis	14	256	$ 9,169,596
Lafayette	343	15,241	$1,075,400,448
Lafourche	52	752	$ 50,544,756
LaSalle	22	395	$ 16,538,736
Lincoln	18	177	$ 9,877,024
Livingston	7	25	$ 1,011,988
Madison	1	57	$ 2,074,388
Morehouse	3	16	$ 1,340,020
Natchitoches	8	49	$ 2,848,892
Orleans	83	3,731	$ 404,175,192

Ouachita	32	167	$ 10,243,516
Plaquemines	64	2,356	$ 158,928,400
Pointe Coupee	6	133	$ 8,656,328
Rapides	9	120	$ 8,253,612
Red River	1	12	$ 262,064
Richland	7	32	$ 1,528,184
Sabine	8	60	$ 1,716,572
St. Bernard	16	849	$ 84,723,156
St. Charles	9	1,381	$ 120,449,440
St. Helena	2	20	$ 1,132,976
St. James	9	883	$ 86,346,252
St. John	7	1,033	$ 75,065,004
St. Landry	25	896	$ 60,571,896
St. Martin	23	451	$ 23,139,420
St. Mary	54	1,391	$ 87,545,688
St. Tammany	38	264	$ 23,690,976
Tangipahoa	9	363	$ 13,920,584
Tensas	2	9	$ 240,380
Terrebonne	128	6,229	$ 402,691,696
Union	3	25	$ 671,072
Vermillion	47	1,137	$ 77,825,988
Vernon	6	77	$ 4,500,020
Washington	6	23	$ 1,274,924
Webster	23	463	$ 23,932,552
W. Baton Rouge	5	224	$ 16,682,424
W. Carroll	4	21	$ 1,108,968
W. Feliciana	3	51	$ 4,270,640
Winn	4	25	$ 1,513,496
Total	**1,824**	**58,016**	**$4,082,676,272**

Source: Louisiana Department of Labor

Map 1 provides a visual illustration of the distribution of energy jobs across the 64 parishes. From this map it appears there is some concentration of the energy sector in the southern portion of the state, but there are still several parishes in the northern and central regions with 500 or more energy employees. For example, Caddo Parish employed 2,413 people in these three industries, while Bossier Parish employed 1,265.

Map 1
Distribution Across Louisiana Parishes of Covered Employment in the Oil & Gas Extraction, Refining and Pipeline Industries: 2006



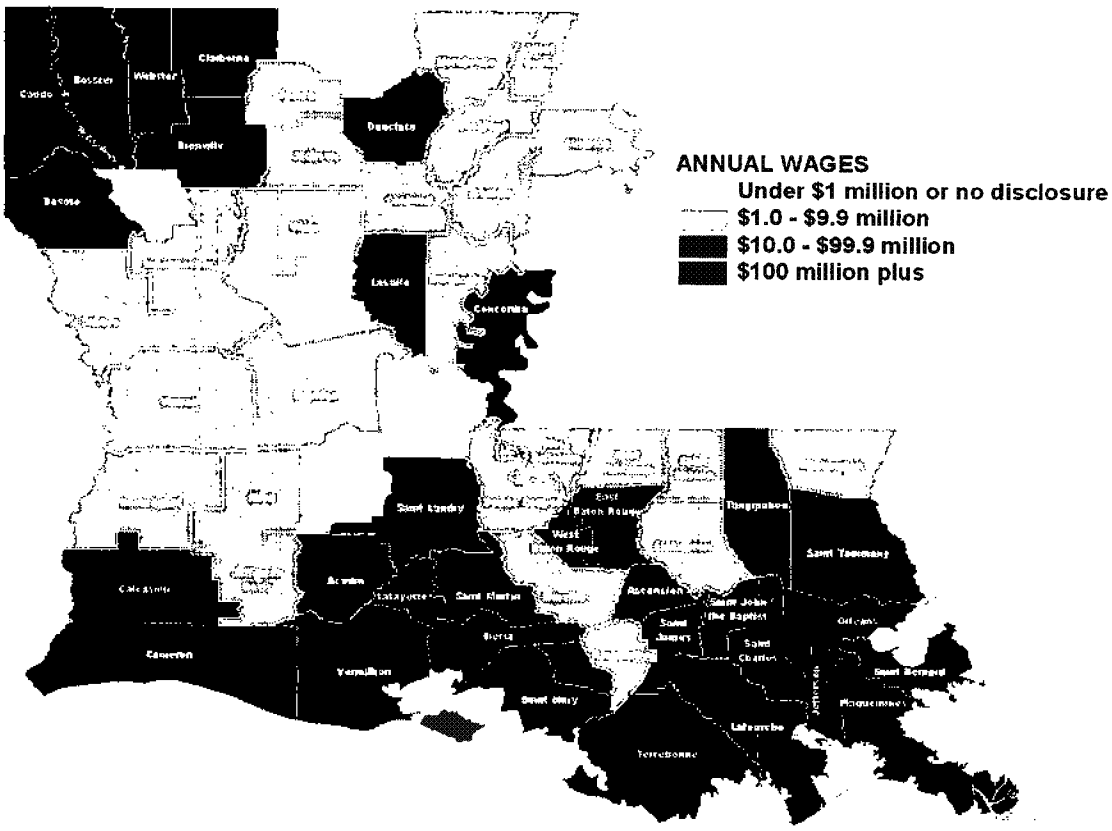
Distribution across the State: Annual Wages

The last column of Table 6 contains annual covered wage data by parish. Map 2 provides a visual illustration of the distribution of covered wages. These data detail what is in some cases a massive injection of earnings into a parish's economy. Note for example that in 2006:

- There were 57 parishes where energy wages exceeded $1 million a year.
- There were 10 parishes where energy wages exceeded $100 million.
- In Lafayette Parish energy wages exceeded $1 billion dollars, and in Orleans and Terrebonne Parishes, annual energy wages totaled over $400 million dollars.
- Equally important, **over $4 billion in direct wages was paid to workers in these energy sectors across all parishes in 2006**.

Clearly, the energy sector is vitally important to the economic health of these parishes. It is also important to note that these are only the **direct** effects of the energy sector on these economies. They do not include the additional multiplier or spillover effects that will be estimated later in this report.

Map 2
Distribution Across Louisiana Parishes of Covered Wages Earned in the Oil & Gas Extraction, Refining and Pipeline Industries: 2006



A Broader Income Measure: Value Added

Care has been taken in the material above to describe the wage data as pertaining to "covered" employment in the three energy industries. While this measure will fairly comprehensively include most wage and salary workers, it will not include wages and salaries paid to self employed individuals or unpaid family members---probably a small set within total wage and salary workers in these industries.

However, it is important to realize that wages and salaries are only one component of the income generated for Louisiana citizens by these industries. Not included in the tables above are other labor income, rental incomes, profits, and interest earnings.

One of the best measures of the **total income** created by an industry is its **value added**. Unfortunately, value added data by industry are rather scarce. One useful source is the various industrial censuses and surveys that are taken by the U.S. Bureau of the Census. The Bureau of the Census conducted an **Annual Survey of Manufactures** in 2005 which provides value added data for all of the state's manufacturing sectors for that year. Unfortunately, the Bureau does not conduct an annual survey of the mining sector. The agency does conduct a census of the mining sector every five years. The latest of these censuses is the Louisiana **Census of Mineral Industries: 2002.** Unfortunately, though there is a census of transportation specifically for Louisiana, value added data are not provided specifically for the pipeline industry.

Value added data for Louisiana's manufacturing industries and its extraction sector are provided in Table 7. Note that the manufacturing data are for 2005 and the oil and gas extraction data are for 2002. Without question comparable 2005 oil and gas extraction value added data would

be much higher than the 2002 figure shown in Table 7 because of the very large increase in oil and natural gas prices that occurred between 2002 and 2005.

Table 7

Value Added in Louisiana Manufacturing Sectors in 2005
And in Louisiana Oil and Gas Extraction in 2002

Sector	Value Added (Millions)	Percent of Manufacturing Total
Petroleum & Coal Products	***$34,293.00***	***49.1***
Chemicals	21,318.30	30.5
Food Manufacturing	2,903.90	4.2
Transportation Equipment	2,830.50	4.0
Paper Manufacturing	2,159.00	3.1
Fabricated Metals	1,713.40	2.5
Wood Products	806.90	1.2
Machinery Manufacturing	798.40	1.1
Plastics & Rubber Products	603.50	0.9
Nonmetallic Mineral Products	510.60	0.7
Primary Metals	453.00	0.6
Beverage & Tobacco	246.90	0.4
Printing & Related Products	224.40	0.3
Electrical Equipment	139.30	0.2
Textile Products	D	NA
Apparel Manufacturing	D	NA
Computers & Electronics	D	NA
Total Manufacturing	$69,910.60	100
Oil & Gas Extraction*	***$24,658.70***	***NA***

Source: 2005 Survey of Manufactures, U.S. Bureau of Census and 2002 Economic Census for Louisiana: Mining. D = not shown due to disclosure rules. NA = Not Applicable. *Data are for 2002. **The petroleum & coal products sector is 98 percent refining.**

There are several striking conclusions that arise from examining these data.

- Note in the bottom line of Table 7 **that nearly $25 billion in income was created by Louisiana's oil and gas extraction sector in 2002.** This figure exceeds that of every manufacturing sector in Louisiana except petroleum and coal products, and this figure

occurred three years earlier than the manufacturing data in Table 7. Given what happened to oil and natural gas prices and production between 2002 and 2005, **we suspect the value added for oil and gas extraction in 2005 is close to $47.5 billion**[9], an amount that substantially exceeds the sum of the value added of all manufacturing sectors except petroleum and coal products.

- **With nearly $34.3 billion in value added, petroleum refining is the largest source of income in Louisiana's manufacturing sector**. Indeed, almost half (49.1 percent) of Louisiana's value added is derived from the refining sector. While there are some coal mines in this category, 2002 Census of Manufactures data indicate that 98 percent of this value added is derived from refining.
- We estimate that **in 2005 the extraction and refining sectors combined created a remarkable $81.8 billion of income in Louisiana**.

III. Indirect or Multiplier Effects of the Industry

Earlier in this report it was mentioned that a helpful way to think of the energy sector's impact on the Louisiana economy was to think of the state as one large economic pond. Into this pond a rock is dropped labeled "energy industries". Section II of this report has provided estimates of the effect on the state of the initial splash made when the rock hit the pond---what has been referred to as the **direct** impacts of the industry.

Ripples in the Pond: The Multiplier Effect

However, when this rock hits it will also send out ripples to the edge of the pond---what are called the **multiplier** or indirect effects of the industry. For example, the extraction industry will

order offshore platforms from Louisiana fabricators such as J. Ray McDermott or Gulf Island Fabricators. This creates sales, income, and jobs in those firms, which in turn call their suppliers and order sheet steel, pipes, electrical generators, etc., which creates sales, income, and jobs in those firms, and so on. The employees that are hired in the extraction industry are paid wages and salaries which they then spend at car dealerships, grocery stores, eating establishments, etc., which generates new sales, income, and jobs there, etc., etc.

As it turns out, there is a useful tool for measuring these multiplier effects for the industries. It is called an **input-output (I/O) table**. Such a table has been constructed for the Louisiana economy by the Bureau of Economic Analysis (BEA) in the U.S. Department of Commerce. The BEA is the same governmental agency that is responsible for tabulating the gross domestic product statistics that are released on the economy quarterly.

To use the I/O tables we went to the 2005 Louisiana gross state product (GSP) statistics provided by the BEA. This agency estimated that in 2005, refining generated $16,780 million or 9.3 percent in Louisiana GSP. The BEA also reported that oil and gas extraction and support activities for mining added another $23,218 million to state GSP---12.9 percent of the total. These were the figures we inserted into the I/O tables. The multiplier effects on business sales, household earnings, and jobs in Louisiana are documented for the oil and gas extraction sector in Table 8, and the multiplier effects for the refining sector are shown later in Table 9.

Table 8

Direct and Multiplier Effects of Oil and Gas Extraction Sector: 2005

Sector	Direct and Multiplier Effects on:		
	Output (millions)	Household Income (millions)	Jobs
Agriculture, forestry, hunting and fishing	$110.8	$15.7	1,348
Mining	$23,081.5	$2,900.2	51,633
Utilities	$791.4	$144.6	1,721
Construction	$104.5	$39.1	1,155
Manufacturing	$2,469.7	$391.6	9,003
Wholesale trade	$846.9	$264.6	6,478
Retail trade	$1,095.2	$366.1	18,828
Transportation and warehousing	$863.4	$264.0	6,528
Information	$474.9	$125.1	2,463
Finance and insurance	$902.7	$221.1	6,299
Real estate and rental and leasing	$3,891.9	$322.1	10,252
Professional, scientific & technical services	$981.7	$451.4	9,850
Management of companies & enterprises	$1,759.5	$869.5	16,809
Admin. & waste management services	$345.3	$136.5	6,843
Educational services	$205.5	$91.0	3,629
Health care and social services	$1,314.9	$630.7	19,596
Arts, entertainment and recreation	$153.7	$62.6	2,673
Accommodation and food services	$586.7	$222.3	13,848
Other services	$574.9	$183.3	8,884
Households	$0.0	$15.7	2,056
Total	**$40,555.0**	**$ 7,717.2**	**199,895**

Source: Louisiana Input-Output Table, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C., 2004.

Ripple Effects of the Extraction Industry

Table 8 contains the estimated multiplier effects of the extraction industry from the I/O table. The I/O table enables one to estimate the impact of an industry on three key variables in the state: (1) sales at firms; (2) household incomes; and (3) jobs.

Any question about whether or not the extraction industry is a weak or strong engine for economic activity in Louisiana should be completely answered by the numbers in this table. By any reasonable measure, these spillover impacts are huge. **According to the I/O table, extraction industry activity in 1997 created nearly $40.6 billion in sales at Louisiana firms.**

Table 8 provides detail on how these sales are distributed across firms in different industries. The greatest beneficiary is the crude petroleum and natural gas industry---where the "rock" is, so to speak. But notice that multi-millions of dollars in sales are enjoyed by firms in many other sectors of the Louisiana economy. The **real estate industry** does particularly well ($3.9 billion) not only because the earnings created by this industry allows Louisianans to purchase homes and boosts the demand for shopping centers and other business establishments, but also because the extraction industry purchases a lot of property for drilling and production purposes. Over one billion dollars in sales are created in each of the following industries: manufacturing ($2.5 billion), management of companies & enterprises ($1.8 billion), health care ($1.3 billion), and retail trade ($1.1 billion).

For most citizens, the key numbers in Table 8 are the ones in the middle column---the ones dealing with household income. **According to the I/O table, the extraction industry pumped over $7.7 billion into the bank accounts of Louisiana citizens.** Persons that worked in the extraction industry earned the biggest fraction of this money---nearly $3.0 billion---but note that there were 14 sectors of the economy where household earnings exceeded $100 million in 2005.

Employees in the "management of companies & enterprises" sector were the second largest gainers ($869.5 million), followed by health services employees ($630.7 million) and professional, technical, and scientific workers ($451.4 million).

Finally, the last column of Table 8 provides the jobs impact of the oil and gas extraction sector. Here, the numbers are particularly impressive. According to the I/O table **a total of 199,895 jobs in Louisiana in 2005 could be traced directly or indirectly to the presence of the extraction industry**---and this is only from the portion of extraction activity associated with products exported from the state's borders. Not surprisingly, the bigger impacts again are in the principal industry---extraction (51,633 jobs)---which includes the direct job impacts as well.

But notice that thousands of jobs are supported in many other sectors of the Louisiana economy because of extraction's presence here. The health care and retail trade sectors especially benefit from these spillover impacts with 19,596 and 18,828 jobs created, respectively. In excess of 10,000 jobs are supported in each of the following industries: management of companies & enterprises (16,809), accommodations & food services (13,848), and real estate (10,252).

Ripple Effects of the Refining Industry

The existence of a mother lode of petroleum beneath our borders, and beneath the waters in our coastal Gulf of Mexico, has attracted to Louisiana an industry that operates immediately down stream from oil and gas production---refineries. Table 9 contains the I/O estimates of the spillover effects of this industry. It is important to note that we were careful not to double count the impact of this industry by including the extraction sector effects. That is why the "mining" sector in Table 9 contains zeros.

Table 9

Direct and Multiplier Effects the Refinery Sector in Louisiana: 2005

Sector	Direct and Multiplier Effects on:		
	Output (millions)	Household Income (millions)	Jobs
Agriculture, forestry, hunting and fishing	$75.5	$10.1	903
Mining	$0.0	$0.0	0
Utilities	$761.8	$129.2	1,580
Construction	$90.6	$33.6	991
Manufacturing	$19,594.0	$2,037.1	26,480
Wholesale trade	$1,169.6	$364.1	8,948
Retail trade	$706.4	$236.6	12,141
Transportation and warehousing	$1,250.1	$333.9	6,065
Information	$273.5	$70.5	1,406
Finance and insurance	$639.3	$154.4	4,431
Real estate and rental and leasing	$1,527.0	$107.4	4,359
Professional, scientific & technical services	$733.3	$320.5	7,603
Management of companies & enterprises	$573.9	$283.6	5,485
Admin. & waste management services	$323.9	$125.9	6,056
Educational services	$137.6	$60.4	2,401
Health care and social services	$805.4	$385.9	11,985
Arts, entertainment and recreation	$94.0	$38.6	1,657
Accommodation and food services	$421.2	$159.4	9,857
Other services	$463.1	$149.3	6,780
Households		$10.1	1,258
Total	**$29,640.2**	**$5,010.5**	**120,385**

Source:Louisiana Input-Output Table, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C., 2004

Note the bottom line of the first column of Table 9. **The existence of the refining industry in Louisiana created $29.6 billion in sales at Louisiana firms in 2005**. Clearly, this industry has had a very powerful economic effect on the Louisiana economy. Almost two-thirds of these sales

($19.6 billion) occurred in the manufacturing sector---a sector which includes the refinery sales in that year associated with "dropping the rock in the pond".

There are three other sectors where over $1 billion in sales can be traced back to the refining industry: real estate ($1.5 billion), transportation & warehousing ($1.3 billion), and wholesale trade ($1.2 billion). The transportation sector is a big winner because that sector that includes the pipeline industry, the next immediate downstream step in getting the refined product to the market. Note that there are six other sectors of the Louisiana economy where businesses can track over one-half billion in annual sales back to the presence of the refinery industry.

Column two of Table 9 reveals the impact of the refining industry on household incomes of Louisianans in 1997. **Over $5 billion in earnings were injected into the Louisiana economy through both the direct and indirect effects of the refining industry in that year**. Over a $2 billion of this income went to workers in the manufacturing sector where the refineries are located. Note that there were 12 other sectors in Louisiana that saw their workers' earnings boosted in excess of $100 million in 2005 through spillover effects of the refining industry.

The jobs impacts were equally impressive. According to the last column in Table 9, **there were 120,385 jobs in Louisiana in 2005 that could be traced directly or indirectly to the refining industry**. Some 26,480 of those jobs were in the manufacturing sector, which includes the direct jobs in the refining industry. In excess of 10,000 jobs were supported in transportation and warehousing (12,141) and health care (11,985), with the accommodations and food services sector coming close to that mark with 9,857 jobs traceable to the refining industry. There were six other sectors where more than 5,000 jobs were related to refining activities in 2005.

The Total Impact: More than "Ripples"

A large number of figures are contained in Tables 8 and 9. Table 10 presents a handy summary of the bottom line from those two tables. According to the I/O table, **the energy industry in Louisiana supports $70.2 billion in sales at firms in the state, over $12.7 billion in household earnings for Louisianans, and 320,280 jobs**. (Note: the sales impact number is slightly lower than the figure in the previous study due to a modeling error in the earlier work.) The term "ripple" hardly does justice to the magnitude of these impacts. These are more like small waves.

Table 10

Summary of Input-Output Results Across Industries: 2005

Industry	Direct and Multiplier Effects on:		
	Sales (millions)	Household Income (millions)	Jobs
Oil & Natural Gas Extraction	$40,555.0	$ 7,717.2	199,895
Refineries	29,640.2	5,010.5	120,385
Totals	**$70,195.2**	**$12,727.7**	**320,280**

Source: Louisiana Input-Output Table

Numbers in the "billions" are used so frequently in society today that it is difficult to get a grasp on what they really mean. Table 10 shows that the industry created $12.7 billion in household earnings in 2005. Perhaps a few comparisons will put these numbers in perspective.

- That is 15.4 percent of the total earnings of Louisianans in that year.[10]
- This number exceeds the total earnings of persons in each of every single parish in the state in 2005. The parish that came the closest to matching this total was East Baton Rouge Parish at $9.1 billion.[11]
- The **Statistical Abstract of the United States - 2002** contains a table listing the gross domestic product (GNP) of 66 countries in the world in 2000.[12] Four of those countries have gross domestic products smaller than $12.7 billion.

Table 10 shows that the jobs of 320,280 Louisianans are dependent on the presence of the energy industry in this state. By way of reference:

- This number represented 16.9 percent of non-agricultural wage and salary employment in 2005 in Louisiana.[13]
- Recall from Table 4 that 58,278 people are employed directly in the energy industries in the state. **This means the job multiplier for these two industries is 5.5**, a figure which includes the direct jobs. **This means for each job created in these two industries, 4.5 additional jobs are created elsewhere in the state.**

What these numbers reveal is that the economic impact of the energy industry is both huge and widespread. Clearly, it has been a powerful influence for economic growth in Louisiana.

IV. Tax Impacts of the Energy Industry

Our analysis of the employment and earnings impacts of these energy industries reveals an economic engine with extensive job and income creating powers. It should come as no surprise then

that both state and local governments enjoy a nice boost to their treasuries from the presence of the extraction, refining and pipeline industries in our state.

These industries influence tax payments to these two governmental units in two ways. First, there are the taxes paid **directly** by the industry to state and local governments in the form of corporate income and franchise taxes, sales taxes, royalties, rentals, bonuses, property taxes, fees, etc. However, there is a second major source of revenues generated by the industries' presence. Recall that in section III, it was determined that almost $12.7 billion in household earnings was created in the state both directly and through the multiplier effects of these industries' activities (see Table 10). State and local governments collect additional taxes via these earnings as well.

Direct State Taxes

Table 11 documents the direct state taxes and fees paid by the extraction, refining, and pipeline industries in fiscal year 2005-06 (FY06). **The energy industry paid $1,447,181,000 in state taxes in FY06 or about 14.4 percent of total taxes, licenses, and fees collected by the state.** Clearly, if this sector did not exist in Louisiana, our citizens would be able to do far less in terms of infrastructure, education, care for the poor, etc., than it is doing today. One point four billion dollars can correct a lot of social problems.

Table 11
Direct State Taxes Collected From Oil & Gas Extraction, Refining,
And Pipeline Industries: Fiscal Year 2005-06

Tax Category	Taxes Paid Thousands of Dollars
Severance Taxes	$709,270
Royalties, Rentals, Bonuses, Leases	497,870
Corporate Income Taxes	44,230
Corporate Franchise Taxes	57,257
Sales Taxes[1]	85,331[2]
Natural Gas Franchise Tax	4,450
Direct Fees to Dept. of Natural Resources	9,072
Royalties Paid to 8g Fund	30,768
Fees Paid to Dept. of Environmental Quality	8,933
TOTAL DIRECT TAXES PAID	**$1,447,181**
Total State Taxes, Licenses & Fees	$10,027,890
Total Direct Taxes as Percent of Total State Taxes, Licenses, Fees	**14.4%**

Source: Departments of Revenue, Environmental Quality, Natural Resources, and Legislative Fiscal Office. Total State Taxes, Licenses, and Fees do not include some agency receipts included in direct taxes paid by the industry.

[1]These represent sales taxes collected by the industry on sales it made. It does not reflect sales taxes paid by the industry to vendors when the industry made purchases.

By far the largest portion of these tax collections are mineral taxes and payments such as severance taxes, royalties, rentals, and bonuses. Counting payments to the 8g fund, these mineral taxes totaled over $1.2 billion or 86 percent of total direct taxes paid by this sector. The next biggest set of taxes was the corporate franchise and income taxes which came to $101.5 million in FY06.

Ad Valorem Taxes to Local Governments

From data tabulated by the Louisiana Tax Commission it is possible to derive a very conservative estimate of the property taxes collected from the energy industries by local governments in Louisiana. The phrase "very conservative" was used in that last sentence because the Tax Commission has reliable data on the assessed value of pipelines, drilling rigs, oil and gas surface equipment, and oil and gas wells from which property tax payments can be derived. In addition, a survey was conducted of the 16 largest refineries in the state to obtain their property tax payments in FY05.

However, what is not available are data on the assessed value of business furniture and fixtures, leased equipment, buildings and land, machinery and equipment owned, and inventories in all of the pipeline and extraction companies. This would no doubt be quite a large figure. Because these items cannot be isolated from the Tax Commission data, our property tax numbers for the industry will be at the very lower limit of total property taxes paid.

Table 12 contains a wealth of data on ad valorem taxes paid in Louisiana. This table shows total ad valorem taxes paid, how much went to schools, our "very conservative" estimate of taxes paid by the extraction, refining, and pipeline industries, and what percent of total ad valorem taxes in each parish was paid by these three energy industries.

Table 12

Ad Valorem Taxes Paid by Parish and Amount Paid
By Oil & Gas, Refining, and Pipeline Industries: 2005

Parish	Ad Valorem Taxes	Total School Taxes	Taxes Paid by Oil/Gas Refining, & Pipelines	Percent of Total Paid by Oil/Gas Refining, Pipelines
Acadia	$ 14,069,266	$ 6,141,022	$ 2,679,527	19.0
Allen	$ 10,615,008	$ 3,253,384	$ 970,839	9.1
Ascension	$ 52,390,916	$ 28,932,481	$ 484,662	0.9
Assumption	$ 9,011,756	$ 3,780,684	$ 957,557	10.6
Avoyelles	$ 4,510,072	$ 1,111,751	$ 108,058	2.4
Beauregard	$ 16,261,636	$ 7,186,083	$ 919,219	5.7
Bienville	$ 16,562,367	$ 9,633,215	$ 3,280,369	19.8
Bossier	$ 52,449,881	$ 28,505,130	$ 4,452,577	8.5
Caddo	$ 158,347,601	$ 88,177,768	$ 4,366,473	2.8
Calcasieu	$ 120,654,980	$ 37,460,082	$ 11,293,008	9.4
Caldwell	$ 3,551,176	$ 1,139,451	$ 118,586	3.3
Cameron	$ 24,885,886	$ 9,236,249	$ 6,352,124	25.5
Catahoula	$ 2,860,957	$ 867,615	$ 56,029	2.0
Claiborne	$ 7,125,374	$ 3,693,277	$ 2,361,859	33.1
Concordia	$ 9,607,947	$ 3,969,335	$ 107,386	1.1
Desoto	$ 22,395,351	$ 12,072,270	$ 4,231,580	18.9
E. Baton Rouge	$ 264,529,268	$ 108,481,330	$ 13,557,732	5.1
E. Carroll	$ 2,872,210	$ 404,019	$ -	0.0
E. Feliciana	$ 3,243,061	$ 1,211,328	$ 53,683	1.7
Evangeline	$ 8,244,080	$ 3,110,543	$ 667,524	8.1
Franklin	$ 4,322,250	$ 684,598	$ 11,404	0.3
Grant	$ 4,567,183	$ 1,346,557	$ 52,989	1.2
Iberia	$ 22,751,499	$ 10,872,684	$ 1,692,029	7.4
Iberville	$ 26,995,293	$ 12,335,878	$ 1,079,303	4.0
Jackson	$ 10,849,146	$ 3,107,754	$ 5,271,461	48.6
Jefferson	$ 241,089,570	$ 52,402,789	$ 1,488,399	0.6
Jefferson Davis	$ 16,468,540	$ 5,591,870	$ 1,584,052	9.6
Lafayette	$ 84,408,344	$ 34,009,661	$ 870,175	1.0
Lafourche	$ 53,224,301	$ 19,081,547	$ 6,509,115	12.2
LaSalle	$ 7,190,102	$ 2,137,458	$ 669,236	9.3
Lincoln	$ 21,376,748	$ 10,847,612	$ 1,169,741	5.5
Livingston	$ 28,734,445	$ 8,945,245	$ 149,658	0.5
Madison	$ 4,151,791	$ 960,534	$ -	0.0
Morehouse	$ 9,559,808	$ 5,319,047	$ 143,372	1.5
Natchitoches	$ 14,713,335	$ 6,458,834	$ 77,608	0.5

Orleans	$ 314,318,880	$ 97,713,552	$ -	0.0
Ouachita	$ 68,878,892	$ 31,001,841	$ 448,783	0.7
Plaquemines	$ 37,492,865	$ 13,996,097	$ 14,203,178	37.9
Pointe Coupee	$ 13,801,776	$ 4,485,014	$ 1,418,668	10.3
Rapides	$ 53,554,139	$ 24,138,295	$ 1,383,673	2.6
Red River	$ 3,549,617	$ 2,331,661	$ 127,895	3.6
Richland	$ 5,818,981	$ 2,666,368	$ 30,219	0.5
Sabine	$ 7,883,953	$ 3,868,427	$ 267,143	3.4
St. Bernard	$ 23,867,311	$ 10,544,297	$ 11,939,992	50.0
St. Charles	$ 92,181,123	$ 45,635,520	$ 14,170,727	15.4
St. Helena	$ 4,025,777	$ 634,558	$ 240,897	6.0
St. James	$ 29,193,555	$ 11,516,093	$ 11,581,442	39.7
St. John	$ 26,659,357	$ 9,771,623	$ 11,710,160	43.9
St. Landry	$ 30,312,195	$ 13,439,894	$ 1,205,073	4.0
St. Martin	$ 15,562,434	$ 5,212,184	$ 1,619,053	10.4
St. Mary	$ 29,218,843	$ 11,455,555	$ 3,073,601	10.5
St. Tammany	$ 144,858,854	$ 68,313,412	$ -	0.0
Tangipahoa	$ 26,515,041	$ 4,756,942	$ 123	0.0
Tensas	$ 3,526,799	$ 1,288,839	$ 67,712	1.9
Terrebonne	$ 45,305,132	$ 6,948,124	$ 8,337,345	18.4
Union	$ 5,930,299	$ 2,185,983	$ 615,772	10.4
Vermillion	$ 21,006,046	$ 8,653,157	$ 5,084,938	24.2
Vernon	$ 11,787,620	$ 5,433,774	$ 3,294,400	27.9
Washington	$ 14,488,874	$ 7,399,931	$ 47,858	0.3
Webster	$ 15,728,690	$ 8,348,854	$ 2,681,794	17.1
W. Baton Rouge	$ 17,466,122	$ 6,024,840	$ 1,125,738	6.4
W. Carroll	$ 2,805,329	$ 1,153,178	$ -	0.0
W. Feliciana	$ 19,363,432	$ 3,664,193	$ 18,052	0.1
Winn	$ 5,405,651	$ 2,356,267	$ 154,859	2.9
Total	**$ 2,442,098,768**	**$ 947,407,558**	**$ 172,636,429**	**7.1**

Source: Louisiana Tax Commission & industry survey

According to these data, the extraction, refining, and pipeline industries paid at least $172.6 million in ad valorem taxes to local governments in 2005. In 31 of the 64 parishes, ad valorem taxes paid by the industries exceeded $1 million. In 12 parishes, the figure exceeded $5 million. The distribution of high-tax-collection parishes for these industries correlates closely with the distribution of earnings and employment shown back in Maps 1 and 2.

Plaquemines Parish, with both refineries and huge exploration activities, was in the top spot at $14.203 million. A close second in this ranking was St. Charles Parish with $14.170 million in property taxes paid. This parish contains two large refineries. Those very capital intensive industries have an abundance of property subject to the ad valorem tax. St. James, St. John the Baptist, St. Bernard, Calcasieu, and East Baton Rouge Parishes, which also contain large refineries, each collected over $11 million in property taxes from these industries.

It is apparent from the numbers in the last column of Table 12 that some parishes would face some very serious financial problems if for some reason these energy industries vanished from their borders. In nine of the parishes over one-fifth of property taxes came from energy firms. In 21 of the parishes over ten percent of property taxes came from energy firms. In St. Bernard Parish one-half of ad valorem taxes came from energy firms. As seen at the bottom of the last column in Table 12, the energy industry paid an estimated 7.1 percent of all property taxes collected by local governmental agencies in 2005---up from 5.7 percent in 1999.

Some readers may be surprised at the numbers in Table 12. They believe that the 10-year industrial tax exemption (TYITE) protected these industries from paying much in the way of property taxes. First of all, the TYITE applies for the most part only to **manufacturing firms**. Thus, while it would apply to refineries, it is not available to pipelines or to the extraction industry.

Secondly, it is a **ten year** exemption. At the end of that 10-year period, the property rolls off the exemption schedule and onto the taxable rolls. Table 13 provides data by parish on the value of TYITE in force as of December, 2005 and the portion of that which applies to refineries. Of the $32.6 billion in exemptions in force as of that date, about $5.4 billion, or 16.7 percent of the total, was for refineries.

Table 13

Total Value of 10-Year Industrial Tax Exemptions in Force in 2005, Value for Refineries, and Amount of Refinery Exemptions Expiring over 2005-09

Parish	Ten-Year Contracts in Force in 2005	Oil Refining Contracts in Force in 2005	Oil Refining Contracts Expiring, 2005-09
Acadia Parish	$670,248,106	$0	$0
Allen Parish	$21,858,400	$0	$0
Ascension Parish	$4,520,585,388	$5,859,285	$0
Assumption Parish	$87,602,668	$0	$0
Avoyelles Parish	$10,810,882	$0	$0
Beauregard Parish	$284,399,079	$2,554,388	$0
Bienville Parish	$39,219,785	$0	$0
Bossier Parish	$121,169,960	$16,867,092	$12,556,856
Caddo Parish	$1,374,180,935	$52,389,708	$23,900,787
Calcasieu Parish	$4,646,002,731	$2,034,644,231	$1,210,047,492
Caldwell Parish	$179,902	$0	$0
Cameron Parish	$739,101,557	$0	$0
Catahoula Parish	$4,103,668	$0	$0
Claiborne Parish	$3,911,011	$0	$0
Concordia Parish	$4,610,188	$0	$0
De Soto Parish	$549,765,670	$0	$0
East Baton Rouge Parish	$3,095,415,468	$956,759,404	$587,443,031
East Carroll Parish	$24,125	$0	$0
East Feliciana Parish	$6,485,439	$0	$0
Evangeline Parish	$357,538,112	$0	$0
Franklin Parish	$3,024,696	$0	$0
Grant Parish	$11,588,045	$0	$0
Iberia Parish	$154,910,563	$0	$0
Iberville Parish	$2,594,745,914	$0	$0
Jackson Parish	$41,382,051	$0	$0
Jefferson Parish	$681,519,756	$0	$0
Jefferson Davis Parish	$229,090	$0	$0
Lafayette Parish	$197,379,375	$0	$0
Lafourche Parish	$176,368,950	$0	$0
La Salle Parish	$2,015,677	$0	$0
Lincoln Parish	$215,742,372	$0	$0
Livingston Parish	$38,537,963	$0	$0
Madison Parish	$1,819,051	$0	$0
Morehouse Parish	$179,199,427	$0	$0
Natchitoches Parish	$472,848,963	$0	$0
Orleans Parish	$494,200,822	$598,732	$0
Ouachita Parish	$1,403,755,302	$0	$0
Plaquemines Parish	$396,653,793	$187,083,448	$139,246,160
Pointe Coupee Parish	$186,145,289	$0	$0
Rapides Parish	$370,394,925	$0	$0

Red River Parish	$13,514,254	$0	$0
Richland Parish	$7,662,919	$0	$0
Sabine Parish	$107,425,138	$0	$0
St. Bernard Parish	$334,327,305	$249,324,230	$133,708,480
St. Charles Parish	$4,103,543,110	$914,088,030	$344,176,674
St. Helena Parish	$14,276,216	$0	$0
St. James Parish	$862,926,101	$429,623,420	$90,461,534
St. John the Baptist Parish	$821,095,194	$523,617,098	$146,178,978
St. Landry Parish	$124,045,685	$18,771,940	$11,446,525
St. Martin Parish	$45,240,237	$0	$0
St. Mary Parish	$351,799,398	$0	$0
St. Tammany Parish	$7,620,132	$0	$0
Tangipahoa Parish	$41,298,824	$0	$0
Tensas Parish	$163,192	$0	$0
Terrebonne Parish	$49,465,460	$0	0
Union Parish	$55,502,764	$0	$0
Vermilion Parish	$2,871,724	$0	$0
Vernon Parish	$3,194,781	$0	$0
Washington Parish	$352,653,887	$0	$0
Webster Parish	$156,258,849	$23,468,699	$20,470,861
West Baton Rouge Parish	$641,721,352	$26,865,945	$10,068,318
West Carroll Parish	$2,480,286	$0	$0
West Feliciana Parish	$264,772,394	$0	$0
Winn Parish	$110,147,542	$0	$0
State Total	**$32,633,681,842**	**$5,442,515,650**	**$2,729,705,696**

Source: Louisiana Department of Economic Development

The last column of Table 13 indicates that exemptions on nearly $2.8 billion of refinery property will expire over the five-year period from 2005-09. Calcasieu Parish, in particular, will experience a taxable property bonanza during this period as over $1.2 billion in refinery property becomes taxable. In East Baton Rouge Parish over one-half billion dollars in new property will come on the taxable rolls over 2005-09, and in St. Charles Parish the figure is approximately one-third of a billion dollars.

The local taxes paid by these three energy industries that are listed in the third column of Table 12 are "very conservative" for two reasons. They include only **parish** property taxes. They do not include (1) **municipal property taxes** nor (2) **local sales taxes** paid by these industries when they buy products in the parishes. Unfortunately, neither of these taxes paid to local governments are tabulated by industry group.

After this review of the direct state and local taxes paid by these industries it is logical to ask, "Is this level of taxes in some sense 'fair'?" Fair, of course, is in the eye of the beholder, but at least one objective measure of the level of fairness is to compare taxes on these industries to taxes imposed in other states. LSU's Center for Energy Studies has actually conducted such a study comparing tax burdens on the extraction industry across the 11 largest producing states. Their conclusion: "...the differences in state and local tax bills among states that compete for E&P activity are not significant enough to be a major determinant of E&P activity, given the magnitude of other uncertainties involved in such decisions."[14] This same Center compared the level of taxation between refineries in Louisiana versus those in the top refining capacity state---Texas. Their principal finding was "...the offset of higher sales and corporate taxes in Louisiana by lower property taxes, and vice versa in Texas, results in nearly total tax equivalence in the two states.[15] This suggests that for both the extraction and refining industries, the tax rates are competitive with neighboring states.

A second measure of "fairness" might be to compare an industry's share of state taxes to its share of earnings created in the state. According to Table 11, the energy industry produced 14.4 percent of total state taxes collected. According to Table 4, total wages in this industry was $4.2

billion in 2006, which is about 6.4 percent of total state wage and salaries.[16] By this measure, the industry is paying significantly more than its fair share of state taxes.

These measures should clearly be considered when discussions arise about additional taxes on the industry. In addition, there is another very crucial issue to consider. The refinery industry sells its product in an international market. When it sells, say gasoline, it is in direct competition with refineries in Mississippi, Illinois, Texas, and other countries. This competition effectively **prevents the industry from shifting any new taxes forward to its customers**. Thus, if Louisiana alone levies a processing tax on its refineries, the Louisiana refineries will have to absorb that tax within their income statements. The obvious incentive is to not only stop expanding in Louisiana, but also to start the process of moving operations to states with a lower tax burden. Most citizens would not like to witness the demise of an industry with the earnings and job creation power of refineries that was described earlier in this report.

Indirect Taxes Generated

The taxes detailed in Tables 11-12 are only those for which firms in these industries have to write out a check. But the presence of the extraction, refining, and pipeline industries generated $12,727,700,000 in household earnings in 2005 through both the direct salaries paid and indirect earning produced through the multiplier effects (see Table 10). These earnings are subject to the state income tax. When spent, these household earnings generate gasoline taxes, sales taxes (both state and local), beer/soft drink/tobacco taxes, etc.

According to the Legislative Fiscal Office, the state of Louisiana collects seven cents in revenues (excluding mineral revenues) for every dollar earned by households in the state. **Thus the**

extraction, refining, and pipeline industries---through the direct and indirect creation of household earnings---were responsible for generating an estimated $890,939,000---a billion dollars---in tax collections for the state of Louisiana in FY06.

What about local taxes paid via these household earnings? Local governments collect approximately 4.4 cents for every dollar earned by a Louisiana household. **Thus, the $12.7 billion in household earnings generated by the three energy industries through direct and multiplier effects added approximately $560,018, 800---over half a billion dollars---to the coffers of local governments in FY06.**

State and local tax dollars in Louisiana support a wide variety of social goods and services, such as elementary, secondary, and higher education, highways, the charity hospital system, economic development efforts, tourism promotion, public safety, and many others. If the extraction, refining, and pipeline industries suddenly vanished from our borders, the provision of these social goods and services would have to be dramatically retrenched. The impact of these three industries goes far beyond just jobs and incomes.

V. Technological Changes

What is truly exciting about this industry are the **technological changes** which are dramatically improving the success rate in wildcat drilling and significantly boosting the total recovery from a field once the petroleum is found. Among these advances are **3-D and 4-D** (i.e., tracking a field with 3-D over time) **seismic** techniques which allow explorers to see what is below the surface much more efficiently. Back in the early 80s, drillers might have to drill 10 wells to hit

a producer; using 3-D and 4-D, only three wells are needed. Thus, the risk factor in this business has been significantly reduced. Also, recent advances in computing power have made seismic surveys easier and more accurate, allowing firms to see pockets of oil and natural gas at great depths. This advancement was crucial in the discovery of the lower tertiary formation associated with the deep water "Jack" Field.

Once the fields are discovered, **horizontal drilling** permits much more oil to be lifted from a discovery than in the past. For example, using older seismic and drilling techniques exploration companies were able to lift only about 35 percent of the oil in place. Adding 3-D and horizontal drilling raised that percentage to 40-50 percent. Then using 4-D there is a further improvement to 65-75 percent.

A third major technological advance has been in **drilling and producing in great water depths**. Deepwater drillships are now capable of drilling in water depths in excess of 10,000 feet. In 2006, Chevron successfully completed a record setting production test in the Gulf of Mexico in its "Jack Field". This well was drilled in 7,000 feet of water and more than 20,000 feet under the ocean floor.

Ingenious developments in production platforms have further enhanced the ability of exploration companies to plum the depths of the very productive Gulf of Mexico. In 1996, Shell Oil put in place the Mars platform in 2,940 feet of water, another new record for production platforms. Mars is a **tension leg platform** (tlp) rather than a fixed leg platform. Mars is basically tethered to the ocean bottom by very large metal tendons. From ocean bottom to the crown of the platform it was the tallest man-made structure ever built, equivalent to two Sears Towers end-to-end.

The Mars field is projected to yield 700 million barrels of oil, the largest domestic find since Alaska's Prudhoe Bay discovery 30 years ago.

Serious advancements are being made in drill pipes---a crucial step if drilling is to take place in very deep waters and at very great depths. The Department of Energy as announced the development of IntelliPipe, a drill pipe with built in telemetry that can operate thousands of feet below the surface via a coupler embedded in connections between pipe sections. The coupler permits data to be sent across small gaps between pipe sections through a cable attached to an inner pipe wall. The DOE also announced the development of a new composite drill pipe made from carbon fiber resins that are lighter, stronger, and more flexible than steel.[17] Composite tendons have also been developed which are used to tether tension leg platforms and spars to the ocean floor. These too are lighter and stronger than tendons made with steel.[18]

ExxonMobil announced recently another technological advancement that will help speed up the drilling process. The optimization process---deemed the "Fast Drill Process"---uses real-time computer analysis of the drilling system's energy consumption, which helps improve the management of factors that determine the drilling rate, such as weight on the drill bit, rotary speed, and torque.[19]

Another interesting aspect of exploration in the Gulf is how **productive the fields are**. We have already referenced the projected output from Mars. By way of comparison, the onshore record for a single gas well is one in the Sweet Lake Field near Lake Charles, producing 50-55 million cubic feet (mmcf) per day. One well in the Gulf last year was producing at three times that rate. Oil production rates are also huge and the oil is flowing unusually fast. In many of these fields the oil is

in **sheet sand** as opposed to sand stone. The former is much more porous, so the oil flows out easier and faster.

In early 2002, the Minerals Management Service approved the use of **Floating Production Storage Offloading** (FPSOs) vessels in the Gulf of Mexico. Rather than using a platform to produce oil, with pipelines tied back to the shore, these FPSOs lift the oil to the surface to a large ship. The oil is stored there and then offloaded on to a barge which can take the oil ashore to the port paying the highest price. These FPSOs are typically "dynamically positioned." That is, there are thrusters on the sides of the ship controlled by satellites that keep the ship within a small movement area, even in hurricane force winds.

Lastly, at least one major technological change is enabling pipe to be laid much more efficiently in the Gulf---the **spool ship**. A spool ship designed by Global Industries has a 110 foot diameter spool of pipe on it that it simply reels off the pipe into the ocean. Welding the spool on shore is much cheaper than welding at sea, and a strand of pipe that took eight days to lay, may now take only one day.

Given this review, it is easy to see why there is considerable optimism about the future of the exploration sector in Louisiana.

VI. Summary and Conclusions

This study is an update of a study done for Mid-Continent Oil and Gas in 1996 entitled, "The 'Energy Sector': A Giant Economic Engine for the Louisiana Economy." Our conclusions from this review of the impact of the extraction, refining, and pipeline industries can be summarized in a series of bullet points:

- Louisiana, through the luck of natural resource distribution, is the nation's **number one producer of crude oil and the number two producer of natural gas** among the 50 states.

- Louisiana ranks **number two among the states in petroleum refining** capacity.

- There are over **83,000 miles of pipelines** transporting crude petroleum and natural gas within the state and in its offshore area of the Gulf of Mexico.

- Through both their direct and multiplier effects **these three industries supported $70.2 billion in sales in Louisiana firms, generated over $12.7 billion in household earnings for Louisianans, and supported 320,280 jobs in the state in 2005.** The $12.7 billion in earnings represented 15.4 percent of total earnings in Louisiana in that year. At least four countries listed in the **Statistical Abstract of the U.S.** have smaller gross domestic products.

- On average **the job multiplier for these two industries was 5.5**. That is, for every job created in these sectors 4.5 additional jobs are created in other sectors in the state. The job multiplier for the oil and gas extraction industry is about 3.9 and for the very capital-intensive refinery industry it is about 11.7.

- These three industries **directly paid over $1.4 billion in state taxes and fees** in FY06, or about 14.4 percent of total state taxes, licenses, and fees collected.

- A very conservative estimate is that these three industries paid **$172.6 million in ad valorem taxes to local governments** in the state in 2005. In 31 of the state's 64 parishes, these ad valorem taxes exceeded $1 million. In 12 parishes the number exceeded $5 million.

- Through the $12.7 billion in household earnings generated by these three industries, **state government was able to collect an estimated $890,939,000 in taxes in FY06.**

- The $12.7 billion in household earnings generated by these three industries added approximately **$560,018,800---over one half billion dollars---to the treasuries of local governments** in FY06.

- In 2006, there were **58,278 workers employed** in the extraction, pipeline, and refining industries---a number approximately equivalent to the 2005 population of Acadia Parish, the 19th most populous parish in the state. Fifty-four of Louisiana's 64 parishes had total covered employment smaller than this number in 2005.

- These three industries paid nearly **$4.2 billion in wages** for Louisiana households in 2006---a figure equivalent to 6.4 percent of total covered wages in the state that year.

- In the third quarter of 2006, the average weekly wage in Louisiana's manufacturing sector was $984. **In refining it was 59 percent higher at $1,567 and the extraction sector paid $1,804 weekly---83 percent higher than the average in manufacturing. Weekly wages in**

the pipeline industry were $1,345---37 percent higher than the average manufacturing wage.

- **Energy jobs and earnings are found in all of Louisiana's 64 parishes in 2006**. There were 14 parishes where more than 1,000 workers were employed in these three industries. In Lafayette Parish (the highest employment parish), 15,241 workers were directly employed in these energy sectors.

- Value added is a broader measure of the total income created directly in an industry. In 2002 (latest data available), **Louisiana's oil and gas extraction sector produced over $24.6 billion in total income**. That figure exceeds the **sum** of all the state's manufacturing sectors except petroleum and coal products. We have roughly estimated the extraction sector's value added in 2005 (when energy prices were much higher than 2002) to be about $47.5 billion.

- The refining sector's value added in 2005 was a huge $34.3 billion. That figure exceeds the **sum** of all the state's other manufacturing sectors.

This report began with the statement: "It is the engine that makes the difference." For Louisiana, the presence of the extraction, refining, and pipeline industries have indeed made all the difference. The energy industry, and its accompanying multiplier effects, has been a powerful engine for economic growth in Louisiana.

APPENDIX A

The Impact of and Recovery from Hurricanes Katrina and Rita

Hurricanes Katrina and Rita cut a swath right through the heart of the Gulf of Mexico (GOM) offshore oil and natural gas production activity. Consider these facts about this important energy-producing region:

- Within this area are 819 manned platforms and another 4,000+ unmanned platforms;
- This is the location of LOOP---the Louisiana Offshore Oil Port---the nation's only superport. This port is where very large crude carriers offload their cargoes of crude oil to be placed in underwater pipelines connected to receiving terminals onshore. From there, the crude is typically pushed farther through pipelines to refineries;
- Approximately 1.5 mmbd of crude are produced in the GOM. This represents about 29 percent of total U.S. production;
- Approximately 10 bcfd of natural gas is produced in this region, or about 19 percent of total U.S. natural gas production.

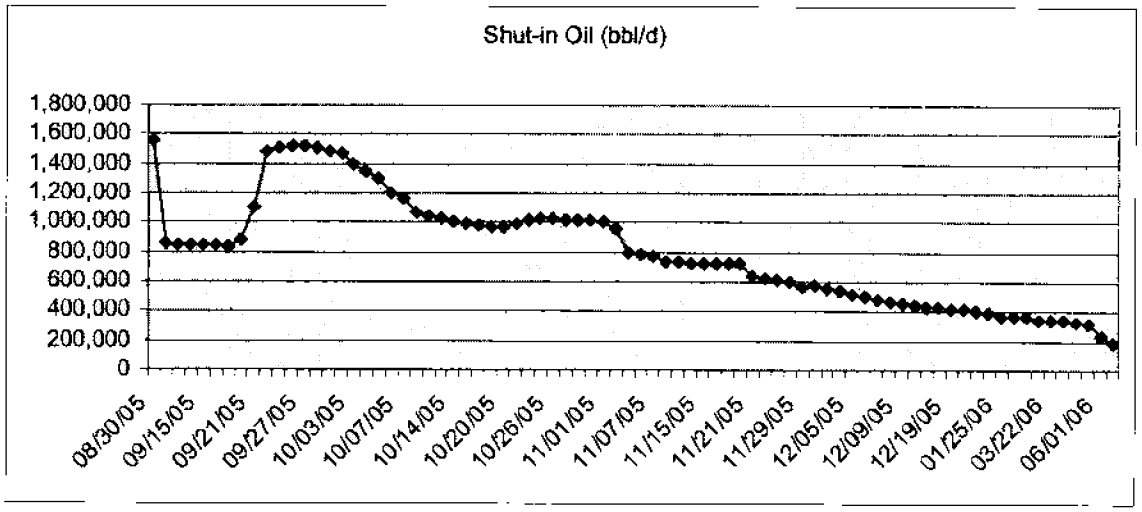
The Impact of the Hurricanes on Production

When a hurricane like Katrina is poised to enter this region of the GOM, energy companies begin the process of shutting down the offshore platforms and evacuating personnel. How many platforms are evacuated depends on the path of the storm.

Figures A-1 and A-2 track the shut-in statistics for crude oil and natural gas produced in the GOM. Shut-in oil and natural gas refers to output that was being produced but is not now because of damaged platforms, pipelines or onshore receiving units. In the case of Katrina, 95.2 percent of the crude oil and 88 percent of the natural gas production was shut-in by August 30, 2005. By September 9th, the shut-in rates had dropped to about 56-58 percent for oil and about 33-37 percent for natural gas. Then the improvement stabilized. When Rita appeared, because it made landfall

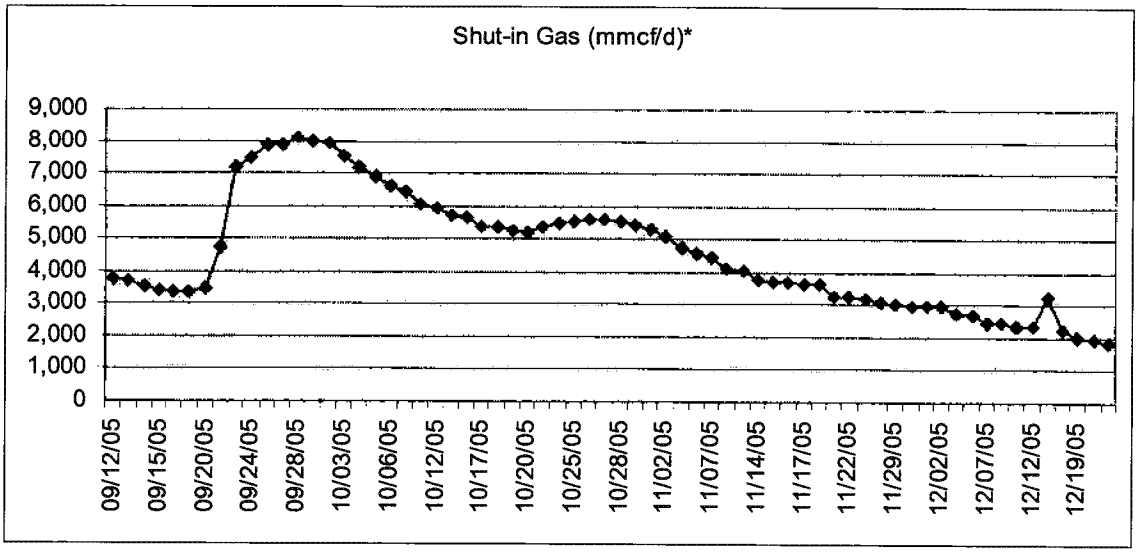
further to the west and more into the center of the GOM production region, 100 percent of crude and 80 percent of natural gas was shut-in. By early January 2006, 26.5 percent of crude oil and 18.1 percent of natural gas remained shut-in. **The latest, and last, Minerals Management Service report on shut-in data in the Gulf showed that as of June 6, 2006, 12 percent of the oil and 9.3 percent of natural gas production remained shut-in.**

Figure A-1
Shut-in Oil Production in the Gulf of Mexico



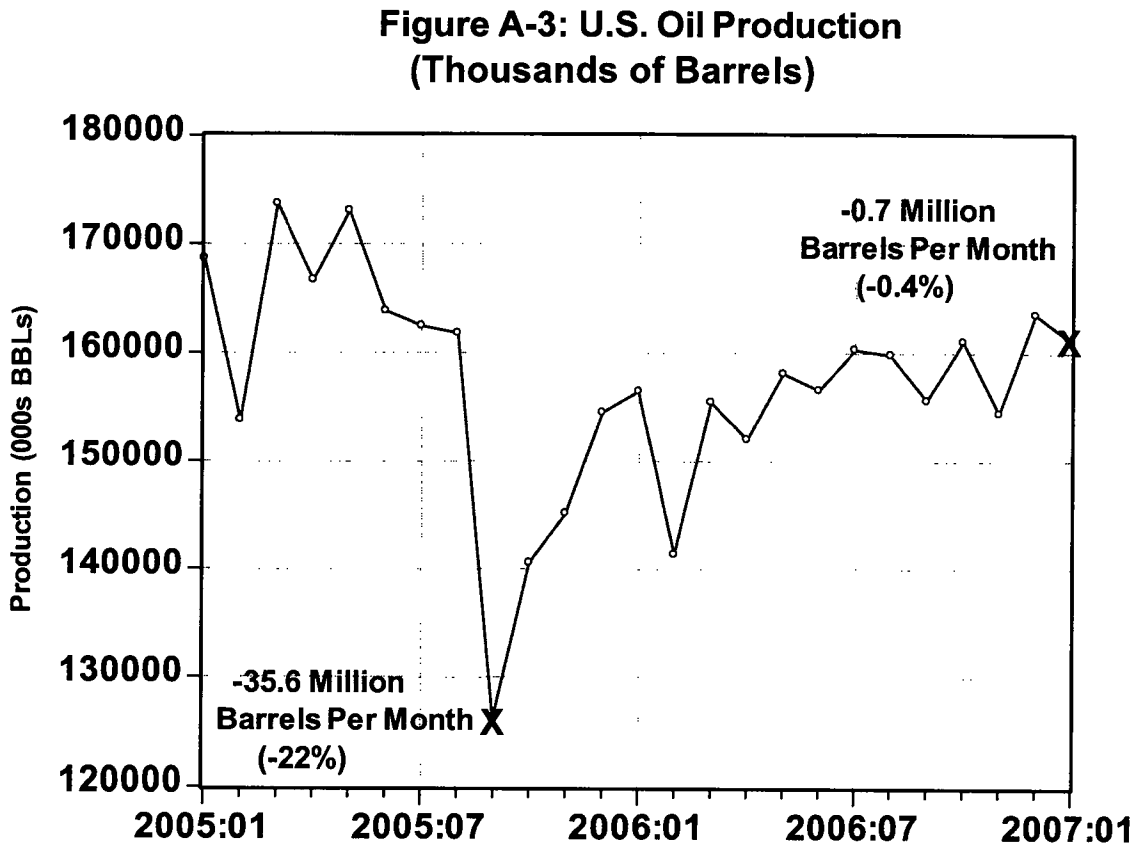
Source: Minerals management Service

Figure A-2
Shut-In Natural Gas Production in the Gulf of Mexico



Source: Minerals management Service

Though shut-in data were not provided by the MMS after June 2006, we do have another indicator of progress in restoring the damage in the Gulf caused by these two storms. Figure A-3 illustrates what has happened to U.S. oil production just prior to and since the storms. Note that U.S. oil production dropped dramatically in the two months after the storms hit, declining a total of about 35.6 million barrels per month. There was a significant increase in the two months just after the storms as many previously shut-in wells were inspected and authorized to become active again. Then there has been the steady period of gains as repair work continued in the Gulf. **As of the end of December, production had recovered to the point of being down only 0.7 million barrels per month or 0.4 percent below the pre-storms peak.**



Why the Sustained, and Higher, Shut-In Rate?

In the case of both of these storms, return to total production was not very swift. In fact, the shut-in rate for Katrina initially stabilized almost twice as high as was the case for Hurricane Ivan in 2004. For example, crude oil production after Ivan stabilized at about 480,000 bd while the comparable figure for Katrina was closer to 850,000 bd.

Why wasn't crude and natural gas production immediately restored to their pre-hurricane levels? Think of this production occurring in three primary zones---(1) offshore platforms, (2) underwater pipelines, and (3) onshore receiving units. Each of these suffered damages that needed repair before production could be restarted.

Zone 1: Offshore Platforms. One reason that production was not immediately restored was because of damage to offshore platforms. As seen in Table A-1, Hurricanes Katrina and Rita---because they were stronger storms that hit more in the heart of the GOM production region---caused far more damage to these platforms than did Ivan which hit farther east.

Table O&G-1
Impact on Offshore Platforms of
Hurricanes Ivan, Katrina, and Rita

Impact	Ivan	Katrina	Rita
Destroyed	7	47	66
Damaged	20	20	32

Source: Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy, www.doe.gov, October 7, 2005, p.2.

Of the platforms destroyed by Katrina and Rita, most were older platforms that were built under pre-1988 upgraded design standards, and were located on the "shelf" (shallow waters), where the wells were fairly depleted and producing little product. Still, there were a number of the larger, deepwater platforms that suffered major damages. For example, as a result of Katrina there were four deepwater platforms that accounted for about 10 percent of offshore crude oil production that were severely damaged. Among these were Mars, Ursa, Mansa, and West 143---all owned by Shell Oil Company. Among the casualties of Rita was Chevron's Typhoon TLP (tension leg platform) which was turned upside down by the storm and this $1.2 billion investment was determined to be a total loss.

It is actually quite a testimony to the engineering skills of the people working in this industry that only 165 of nearly 5,000 platforms were destroyed or badly damaged. This is especially so considering that the Naval Research Lab measured some waves at 131 feet tall during these storms.

That so many platforms survived in this basically unprotected environment speaks volumes about technological advancements in this industry.

Zone 2: Underwater Pipelines. Damage to underwater pipelines was one of the greatest concerns to the energy sector because checking and repairing these pipelines requires some of the scarcest resources in the oil patch---divers, boats, and power. Underwater mudslides caused by Ivan wiped out 102 pipeline systems. A total of 655 pipelines (about 20,000 miles worth) were destroyed by Katrina and Rita.

The good news is that this pipeline damage occurred in 2005 and not prior to the late 1990s. Prior to that time, pipelines were repaired by taking a pipe laying barge into the Gulf, welding strands of pipe together on board, and feeding the pipe into the water. Today, this same function can be done 10-15 times faster using a **spool ship**. A spool ship has a large reel on the back of the ship around which is wound a string of pipe that has been welded together onshore---a much more efficient process than welding on the water. Once out in the Gulf, the pipe is then unwound off the spool and fed into the Gulf, at great savings in time and money.

Zone 3: The Onshore Receiving Units. Once the crude oil and natural gas reach shore, these fuels are received by refineries, gas processing plants and onshore pipelines. The first two sets were the most problematic. Katrina caused the closure of eight **refineries**. Within two weeks after the storm passed, four of these had power restored and were refining crude oil. Four others not only lost power but were also damaged and flooded. Three were in Louisiana: (1) the 350,000 bd ConocoPhillips Refinery; (2) the 183,000 bd Chalmette Refinery, and the 122,000 bd Murphy Oil Refinery. These three units are located in the heavily flooded areas of St. Bernard and Plaquemines

Parishes. With the exception of Murphy Oil Refinery, all were open by the end of 2005 and Murphy Refinery opened later in 2006.

Rita closed three other refineries in the Lake Charles MSA: (1) Citgo (324,000 bd); ConocoPhillips (239,400 bd), and (3) Calcasieu (30,000 bd). These three units had mostly minor wind damage and power loss but fortunately, no flooding. They were all three back up by November 2005.

What received little attention from the press was the damage to **gas processing plants** in the region. Natural gas produced offshore tends to be high in hydrogen sulfide and water. The processing plants refine these impurities out. Three were located near the mouth of the Mississippi River and were severely damaged by both wind and flood. Dynergy's plant in Venice is so badly damaged that some pipelines were rerouted from it to other processing plants---again, the spool ship technology made such re-routing financially feasible. Together these three plants process about 2.8 bcfd of natural gas. Rita added another six plants to these three, though these six were not as badly damaged as the Katrina victims. One plant badly damaged by Rita was the Henry Hub, the center for natural gas trading.

Oil Spills from Katrina & Rita

Another remarkable testament to the technological advancements in the extraction industry is the oil spill record as a result of these two huge storms. In their report "Setting the Record Straight", the Mineral Management Service had the following to say about spills post-storms:

- As of January 25, 2007, MMS identified 125 spills of petroleum products totaling 16,302 barrels that were lost from platforms, rigs, and pipelines on the Federal Outer Continental Shelf (OCS) as a result of damages from Hurricanes Katrina and Rita in 2005.
- Those spills did not occur due to loss of control of the producing wells.

- There were no major spills (2,381 barrels per spill or greater) according to USCG official standards. The USCG defines offshore spills of less than 10,000 gallons (238 barrels) as "MINOR"; offshore spills of 10,000 to 99,999 gallons (238 to 2,380 barrels) as "MEDIUM"; and offshore spills of 100,000 gallons, (2,381 barrels) and greater as "MAJOR".

- According to a report on "Oil in the Sea" from the National Academy of Sciences (1995), far more oil enters the ocean from natural, underwater seeps than from offshore production platforms. In fact, the seeps introduce about 1700 barrels of oil a day into U.S. marine waters, which is about 150 times the amount from oil and gas activities.

- Over the past 20 years, less than .001 percent of the oil produced in U.S. state and federal waters have been spilled.

- The loss of oil from the Federal OCS wells themselves was minimal due to the successful operation of the safety valves that are required by the Minerals Management Service (MMS) to be installed on every well at least 100 feet below the ocean floor.

- All facilities on the Outer Continental Shelf in areas threatened by the hurricanes are "shut in" prior to a storm's arrival, meaning that pipelines are closed and platforms are secured for heavy weather.

- Oil losses were mostly limited to the oil stored on platforms that were damaged or oil contained in individual segments of pipelines that were damaged.

- There were no accounts of spills from facilities on the OCS that reached the shoreline, or oiled birds or mammals, or involved any large volumes of oil to be collected or cleaned up.

- The five largest spills were estimated to be between 1,000 barrels and 2,000 barrels. Two of the five spills may have only been a couple of hundred barrels. These five spills represent only 4 percent of all the spills but total 8,428 barrels and 52 percent of the total spillage.[20]

The bottom line is these two huge storms came right through the heart of the offshore oil and gas industry and there were virtually no significant spills offshore. One policy implication is that the United States is the only country on earth that restricts oil and gas exploration in some of its offshore area (the East Coast, West Coast, West Coast of Florida, and coastal areas of Alaska). What

residents along these coasts fear the most is coastal damage from oil spills. The aftereffects of Katrina and Rita should go a long ways towards dispelling those fears.

ENDNOTES

[1]Oil and Gas Journal, June 11, 2007, p. 69.

[2]Oil and Gas Journal, December 18, 2006, p. 62.

[3]Email from Michelle Barnes in the Center for Energy Studies at LSU, July 2, 2007.

[4]Ibid.

[5] Note that the category "support activities for mining" contains companies that drill for oil and provide service work (seismic, well servicing, etc.) to the industry.

[6]www.Laworks.net. Go to LMI.

[7] www.bea.gov/bea/regional/reis/drill.cfm.

[8]www.Laworks.net/Downloads/LMI.

[9] This figure was estimated by estimating total revenues from oil extraction (oil price times oil production) and natural gas revenues (gas prices times gas production) in both 2002 and 2005 and calculating the total increase in revenues over this time period. The result is a 92.8 percent increase.

[10]Regional Economics Information System, Bureau of Economic Analysis, CD-ROM, April 2007.

[11]Ibid.

[12]Statistical Abstract of the United States: 2002, 122nd Edition, p. 833.

[13]www.bls.gov.

[14]Allan G. Pulsipher, Robert H. Baumann, and Wumni O. Iledare, "Overall Tax Levels Similar Across 11 Producing States," Oil and Gas Journal, October 11, 1993, p. 89.

[15]Allan G. Pulsipher and Robert H. Baumann, Louisiana's Petroleum Refining Industry," Center for Energy Studies, Louisiana State University, February, 1993, p. 36.

[16]Wage and salary disbursements in 1999 (latest year available) were $53.6 billion. Regional Economic Information System, Bureau of Economic Analysis, May 2001, CD-ROM.

[17]Oil and Gas Journal, July 18, 2005, p.17.

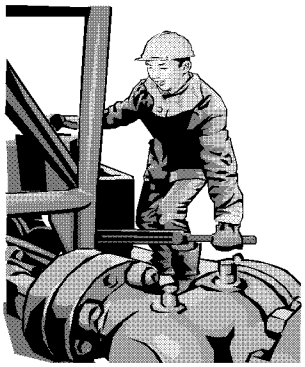
[18]Oil and gas Journal, August 15, 2005, p. 39.

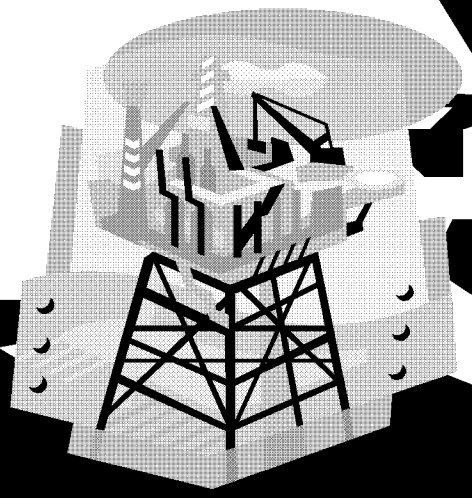
[19]Go Gulf Magazine, 2005, p. 24.

[20]www.mms.gov. Go to SettingtheRecordstraight/Estimatedoil%20SpillsAsAResultofHurricanesKatrinaand Rita.

The Energy Sector:

Still A Giant Economic Engine For The Louisiana Economy





By Loren C. Scott, Ph.D.

September 2007

EXECUTIVE SUMMARY

This study is an update of a study done for Mid-Continent Oil and Gas in 2002 entitled, "The 'Energy Sector': A Giant Economic Engine for the Louisiana Economy." Our conclusions from this review of the impact of the extraction, refining, and pipeline industries can be summarized in a series of bullet points:

- Louisiana, through the luck of natural resource distribution, is the nation's **number one producer of crude oil and the number two producer of natural gas** among the 50 states.

- Louisiana ranks **number two among the states in petroleum refining** capacity.

- There are over **83,000 miles of pipelines** transporting crude petroleum and natural gas within the state and in its offshore area of the Gulf of Mexico.

- Through both their direct and multiplier effects **these three industries supported $70.2 billion in sales in Louisiana firms, generated over $12.7 billion in household earnings for Louisianans, and supported 320,280 jobs in the state in 2005.** The $12.7 billion in earnings represented 15.4 percent of total earnings in Louisiana in that year. At least four countries listed in the **Statistical Abstract of the U.S.** have smaller gross domestic products.

- On average **the job multiplier for these two industries was 5.5**. That is, for every job created in these sectors 4.5 additional jobs are created in other sectors in the state. The job multiplier for the oil and gas extraction industry is about 3.9 and for the very capital-intensive refinery industry it is about 11.7.

- These three industries **directly paid over $1.4 billion in state taxes and fees** in FY06, or about 14.4 percent of total state taxes, licenses, and fees collected.

- A very conservative estimate is that these three industries paid **$172.6 million in ad valorem taxes to local governments** in the state in 2005. In 31 of the state's 64 parishes, these ad valorem taxes exceeded $1 million. In 12 parishes the number exceeded $5 million.

- Through the $12.7 billion in household earnings generated by these three industries, **state government was able to collect an estimated $890,939,000 in taxes in FY06.**

- The $12.7 billion in household earnings generated by these three industries added approximately **$560,018,800---over one half billion dollars---to the treasuries of local governments** in FY06.

- In 2006, there were **58,278 workers employed** in the extraction, pipeline, and refining industries---a number approximately equivalent to the 2005 population of Acadia Parish, the 19th most populous parish in the state. Fifty-four of Louisiana's 64 parishes had total covered employment smaller than this number in 2005.

- These three industries paid nearly **$4.2 billion in wages** for Louisiana households in 2006---a figure equivalent to 6.4 percent of total covered wages in the state that year.

- In the third quarter of 2006, the average weekly wage in Louisiana's manufacturing sector was $984. **In refining it was 59 percent higher at $1,567 and the extraction sector paid $1,804 weekly---83 percent higher than the average in manufacturing. Weekly wages in the pipeline industry were $1,345---37 percent higher than the average manufacturing wage.**

- **Energy jobs and earnings are found in all of Louisiana's 64 parishes in 2006**. There were 14 parishes where more than 1,000 workers were employed in these three industries. In Lafayette Parish (the highest employment parish), 15,241 workers were directly employed in these energy sectors.

- Value added is a broader measure of the total income created directly in an industry. In 2002 (latest data available), **Louisiana's oil and gas extraction sector produced over $24.6 billion in total income**. That figure exceeds the **sum** of all the state's manufacturing sectors except petroleum and coal products. We have roughly estimated the extraction sector's value added in 2005 (when energy prices were much higher than 2002) to be about $47.5 billion.

- The refining sector's value added in 2005 was a huge $34.3 billion. That figure exceeds the **sum** of all the state's other manufacturing sectors.

00032227 OS-WDC-B01-00002-000049 Page 3 of 3

For Immediate Release: **Contact: Nicolette Nye**

Friday, June 11, 2010 (202) 347-6900

NOIA Member Companies Feel Impacts of Drilling Moratorium,

Applauds Landrieu's Efforts to Save Jobs

WASHINGTON, DC – The decision to halt deep water exploration activity and the uncertain status of shallow water operations in the Gulf of Mexico is already having profound impacts on the offshore energy industry, and these impacts will only worsen the longer the pause continues. Since the Gulf region depends on the offshore industry for thousands of jobs and billions of dollars in revenue, the impacts of the "one size fits all" moratorium will add further job loss and economic woes to a region already suffering from these same hits to its seafood and tourism industries.

Fearing that the blanket drilling moratorium "could exacerbate, rather than alleviate, the impacts of this spill upon both our economy and our environment," U.S. Senator Mary Landrieu of Louisiana has sent a letter to the President requesting that the blanket moratorium on drilling be lifted. In a June 11 letter the Senator wrote, "The immediate impacts to the economy are devastating enough: idling the 33 rigs currently permitted to drill in the deepwater Gulf would immediately impact employment for roughly 38,000 crewmen, deck hands, engineers, welders, ROV operators, caterers, helicopter pilots, and others who operate and service these vessels. That's like closing 12 large motor vehicle assembly plants in one state, all at once".

NOIA strongly echoes the Senator's sentiments and applauds her efforts to look at the full scope of interwoven industries and communities that make the Gulf of Mexico economy strong. We plan to continue working with the Senator to ensure that jobs and revenues in the region aren't an unintended casualty of the response to the Deepwater Horizon spill.

NOIA member companies are feeling the impact of the blanket moratorium, and several share their stories below:

Aker Solutions

- Aker Solutions is a leading global provider of engineering and construction services, technology products and integrated solutions to the offshore oil and gas industry.
- The moratorium will impact Aker Solutions' offshore related operations on the Gulf Coast which include about 750 employees in Texas and Alabama.

- The company has already started to refocus their efforts to international projects that hopefully can replace some of the void.
- Some of their offshore services work is coming to a halt already; and unless they can refocus that workforce, including vessels and tools, to international projects they are at risk of losing jobs in Texas over the next few months.
- Manufacturing jobs in Alabama are at risk from early 2011, as the backlog runs out with no new orders of deepwater subsea equipment coming in.
- Engineering jobs in Houston are at risk of being reduced, but may be able to be refocused internationally.
- In summary, part of their workforce will be affected directly or indirectly by the moratorium. Their goal is to try to mitigate this by securing international projects.

ATP Oil & Gas Corporation

- ATP Oil & Gas Corporation is an independent oil and gas producer headquartered in Houston, Texas.
- The moratorium has caused ATP to stop the drilling of a natural gas development well (the Mississippi Canyon 305 # 2 well) and release the deepwater drilling rig. The MC 305 #2 well would have produced approximately 40 million cubic feet of gas per day with a very small amount of condensate.
- Additionally, ATP will not be able to drill and complete two development wells (MC 941 #4 well and MC 942 # 2 well) using a drilling configuration with two blowout prevention (BOP) stacks, one on the seafloor and one at the surface. This is a new design for improved safety, a first in the US Gulf of Mexico and one that the company planned 3 years ago.
- These wells were originally planned to be completed and placed on production in 2010 at a combined rate of approximately 14,000 barrels of oil per day using a platform drilling rig attached to the ATP Titan platform.
- As a result of the moratorium and the suspension of operations, ATP expects to incur additional costs of approximately $30,000,000 that otherwise would not have been spent.
- Additionally, ATP will defer revenues of more than $1,000,000 per day as a result of not being able to drill and complete the development wells planned for 2010.

Bollinger Shipyards, Inc.

- Bollinger Shipyards, Inc. and its affiliated companies are the leading provider of quality marine construction, repair and conversion products, servicing both the military and commercial marine industry. They also own and operate a fleet of Offshore Supply Vessels that service the deepwater activities of the OCS. Family owned and operated since 1946, Bollinger Shipyards employs 3,000 people.

- "In the 64 years of our existence, we have never been faced with such an uncertain future. This moratorium has created an environment leaving Bollinger Shipyards no choice but to downsize our company thereby eliminating good paying jobs."

Broadpoint, Inc.

- Broadpoint is a 27 year old privately held company with a 100 employees based along the Gulf Coast with its headquarters in Houston and a Network Operations Center in New Orleans with an additional office in Lafayette, LA.

- Their operations are 99% directly related to providing telecommunication services in the Gulf of Mexico through satellite communications and the ownership and management of a 100,000 square mile GSM/GPRS/Edge network operating in the Gulf.

- Broadpoint and its clients will be adversely affected as a result of this shutdown and it will directly affect their ability to operate. Reliable communications is essential for the health and safety of individuals in the Gulf of Mexico.

CapRock Communications, Inc.

- CapRock Communications is a 29 year old privately held company employing 750 employees globally with headquarters in Houston and operational offices in Lafayette and New Orleans, LA.

- Their operations are related to providing satellite communication solutions that enable the oil and gas industry to operate more efficiently in today's environment, serving the communications needs of rig owners, service companies and operators working on drilling rigs, production platforms and other assets in the Gulf.

- They currently have over 50 field service and operations personnel supporting clients in the Gulf of Mexico and this shutdown will directly impact their ability to maintain operations.

- Their field service personnel install and manage communication systems onboard drilling rigs and energy support vessels throughout the Gulf of Mexico. As their customers are now required to cease or limit their operations, the amount of business their company receives and the work they have for their personnel in the region significantly declines.

- They will be forced to redeploy personnel to different regions or support them in finding other opportunities.

C&C Technologies, Inc.

- C & C provides a wide range of survey and mapping services for the land and offshore oil and gas industry, the telecommunications industry and the U.S. government.
- C&C expects to lay off approximately 10 employees as a result of the moratorium, and will not be hiring the dozen or so workers they expected to hire in the coming months.

Cobalt International Energy, Inc

- Cobalt International Energy, Inc. (Cobalt) is an independent oil and gas exploration and production company focused on the deepwater U.S. Gulf of Mexico and the deepwater offshore Angola and Gabon.
- Cobalt was formed in 2005 and is headquarters in Houston, Texas with an operational base in Port Fourchon, L.A. for their deepwater GOM exploration activities, and an (soon to be established) operational base in Luanda Angola for their Angola exploration activities. At present Cobalt have some 65 employees and 25 consultants.
- The GOM Drilling Moratorium has significantly impacted Cobalt's GOM deepwater 2010 exploration and appraisal program from a multitude of perspectives:
    - Cobalt's exploration and appraisal drilling program for the remainder of 2010 (3 wells of which 1 had all of the necessary permits/insurance in place) is now on hold. Thus, the exploration drilling rigs, services, vessels, tools, people etc. that were contracted to support the drilling programs have been released.
    - Cobalt invoked the Force Majeure provision in a recent rig contract, thus the company is paying capital for a period of time while the rig is idle as well as the associated key services (e.g. vessels). Cobalt has also experienced unanticipated legal costs as a result.
    - There is a follow-on impact in the form of delay in executing their 2011 exploration and appraisal program (approx 9 wells) in the deepwater GOM. Thus the program has been extended further/delayed into the future which will affect the timing and thus cash flow they would have anticipated sooner.
    - As the deepwater GOM is a key focus area for Cobalt in light of the position established (some 227 deepwater leases) in the last few years, the

company stock has been significantly impacted (dropped 40%) amid concerns regarding the GOM Drilling Moratorium; the value of the company has thus been impacted by some $1.5 billion in the market.

- Cobalt will shift its capital spending program and resources to their West Africa business. Resumption of their investment program in the United States is completely dependent on the termination of the GOM Drilling Moratorium.

Davis-Lynch, Inc.

- Davis-Lynch is a privately owned company founded in 1947 that manufactures, sells, and services down-hole equipment for the offshore oil and gas industry.
- They employed over 300 people in 2009, but reduced their workforce by approximately 100 people as a result of an industry downturn. In 2010 with an upswing in business they have recalled some of the people released in 2009.
- Approximately 20% of their business is dedicated to providing products and services to the offshore drilling industry in the Gulf of Mexico, with a large portion associated with water depths greater than 500 feet.
- The moratorium leaves them no alternative other than to implement another reduction in their workforce in locations including Lafayette, LA; Houston, TX; and Corpus Christi, TX.

Delmar Systems, Inc.

- Delmar Systems, Inc. is a leader in offshore mooring, providing mooring solutions for the offshore oil and gas industry.
- Delmar is a 42 year old privately held company employing 300 employees based along the gulf coast with a technical office in Houston and large operational base at Port Fourchon, LA.
- Operations are 100% directly related to mooring deepwater semi-submersibles in the Gulf of Mexico and as a result of this shutdown, will directly affect ability to operate.
- Thirteen of the thirty three deepwater wells involved "moored" or anchor semi-submersible rigs owned by four drilling contractors.

Heerema Marine Contractors

- Heerema is a 48 year old privately held Dutch company who has been working in the Gulf of Mexico for 32 years and has installed approximately 75% of all deep water facilities currently producing in the Gulf. They own and operate three of the four largest construction vessels in the world and the US Gulf has always been a significant part of the revenue stream of their company.

- They currently employ 50 people between offices in Houston, TX and an operational base at Port Fourchon, LA.

- Their U.S. operations are directly related to installation of new facilities and sub sea infrastructure in the deep water Gulf of Mexico and as a result of this shutdown, their business future is in a state of uncertainty here in the US.

Laborde Marine, LLC

- Laborde Marine is a family-owned business headquartered in New Orleans which owns and/or operate 21 vessels, all built in U.S. shipyards; while employing over 300 people with a $14 million annual payroll.

- They invested over $150 million to build or acquire thisfleet.

- The moratorium is essentially telling them to "park" their vessels for six months.

- For Laborde to move internationally, they would have to compete with vessels built in foreign ship yards at a much lower cost and often subsidized by foreign governments.

- "The moratorium may well be the death-knell for U.S. businesses engaged in the energy service sector."

J. Ray McDermott, Inc.

- J. Ray McDermott is a Houston headquartered Company with approximately 1,200 employees in Morgan City and New Orleans, Louisiana and Houston, Texas.

- The company provides engineering and construction services to the offshore energy sector worldwide as well as in the Gulf of Mexico through the engineering, construction and offshore installation of the infrastructure necessary to develop and produce offshore oil and gas fields.

- According to the company, the shutdown of deepwater drilling in the Gulf of Mexico will create a domino effect (movement of rigs and other equipment out of the area, loss of jobs, etc.) that will no doubt affect the timing of future developments and the economic recovery of the region for years to come.

Oceaneering International, Inc.

- Oceaneering is a global oilfield provider of engineered services and products, primarily to the offshore oil and gas industry, with a focus on deepwater applications.

- Oceaneering reduced its 2010 earnings forecast on expectations that the U.S. government's moratorium on deepwater drilling activity in the Gulf of Mexico will hurt demand for its deepwater services.
- The oilfield-services and products company said it expects the moratorium will cut second-half earnings by 45 cents a share and is now looking for 2010 profit of $2.80 to $3.10 a share.
- Nearly one-quarter of Oceaneering's remotely-operated vehicles operate in the Gulf, with about half of those in drilling support services.
- The company anticipates some early terminations and revised contracts.
- The stock is down 27% this year amid concerns about the Gulf oil spill.

Otto Candies, LLC

- Otto Candies is a marine transportation company started 68 years ago with a fleet of 40 vessels.
- 500 of their 600 U.S.-based employees could be impacted by the moratorium, with some possibly needing to be relocated to Brazil, Mexico, or West Africa.

Stone Energy Corporation

- Stone Energy Corporation is an independent oil and natural gas exploration and production company headquartered in Lafayette, Louisiana, with additional offices in Houston, Texas and Morgantown, West Virginia.
- Stone has already experienced a 40% drop in the value of their company in anticipation of punitive legislation and regulation.
- They will be forced to reduce jobs as will other operators.
- Stone has a shelf platform rig at MC 109 which has been shut down, wasting over $10 million dollars by having an idle rig sitting there doing nothing.
- This cash cost will be far exceeded by the lost revenue of the five wells being drilled from the facility.
- The 5 wells were anticipated to each produce approximately 1,000 barrels per day, assuming $70 per barrel, resulting in $350,000 per day in potential lost revenues.
- Stone also has a half-dozen exploratory wells that will be delayed a year or more. This hurts their ability to sustain reserves to convert to future production and growth.
- One rig that was going to be used in this exploratory program, the Deepwater Mariannas, is expected to be leaving the Gulf for opportunities in foreign countries.

Southern States Offshore, Inc.

- Southern States Offshore, Inc. is a privately held company incorporated in 1996 and wholly owning and operating seven offshore service and supply vessels, six of which were built and delivered in Louisiana and Alabama in 1998, 2005, 2007, 2009 and 2010 at a cost of 48 million dollars.

- They employ 53 mariners who live in Texas, Louisiana and Alabama; with an office staff in Houston, Texas of ten employees, all Texas residents.

- According to the company, their employees, their families, the ship yards, vendors, tax authorities, etc. that depend on this industry to pay their mortgage, health care bills, cloth their families and send their children to school all are at risk of losing everything.

Zupt, LLC

- Zupt is a privately owned, international service and manufacturing company specializing in the integration and application of inertial technologies to onshore and offshore survey and positioning services to make operations more efficient.

- Were under contract with an operator who was 8 to 12 days away from completing a well and Zupt was preparing to conduct the metrology survey work when the operator was told to shut the well. No metrology survey was conducted, an immediate loss of revenue.

- One of Zupt's engineers was laid off due to the near term lost revenue.

- During the moratorium the company is forced to seek work in West Africa and the North Sea, and if unsuccessful they anticipated being out of business within four months.

###

NOIA is the only national trade association representing all segments of the offshore industry with an interest in the exploration and production of both traditional and renewable energy resources on the nation's outer continental shelf. The NOIA membership comprises more than 250 companies engaged in business activities ranging from producing to drilling, engineering to marine and air transport, offshore construction to equipment manufacture and supply, telecommunications to finance and insurance.

Nguyen, Ngoc B

From: Juvkam-Wold, Hans [juvkam-wold@pe.tamu.edu]
Sent: Friday, June 18, 2010 2:50 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Lindsay,

I will not be able to attend the meeting on Monday morning, but plan to call in.

Hans

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a meeting at 10:00am EASTERN Monday, June 21, 2010 as a follow-up to Tuesday's conference call regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. For those of you who are unable to join this meeting in person, there will be a call-in option for you to participate remotely. This meeting/conference call is limited to the people who have received this email. Please let Kallie Hanley (cc'd) and me know by 3:00pm EASTERN tomorrow if you will be able to participate. Please be sure to indicate whether you will be attending in person or via phone. We will reach out to you with arrival instructions or a conference call number following our receipt of your participation.

Thank you,

Lindsay Dubin
Special Assistant
Office of Scheduling and Advance
The U.S. Department of the Interior
p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Friday, June 18, 2010 3:43 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10
Attachments: Presentation to Secretary of Interior - Rev2 (2).pptx

Attached is a current draft of a power point presentation we are preparing for the Secretary and staff for Friday's meeting. It is till be reviewed by the Group of 8, but I thought I would send it ahead in the event any of you would want to look at it ahead of Monday's meeting.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
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lindsay_dubin@ios.doi.gov

Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why we are here
2. Comments on the Secretary of Interior, May 27, 2010 Report "Increased Safety Measures for Energy Development on the Outer Continental Shelf"
3. Comments on the NTL NO2010-NO5, June 8, 2010
4. Measures that should be taken now to improve safety in the GOM

Why we are here

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

We are here nor are we going to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.

We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.

This is the time we all need to work together and we understand the job at hand.

This is not the time to punish the innocent nor further harm the public's interest .

The good

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 2500 in over 1000 feet of water.

Last major incident resulting in oil coming assure in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

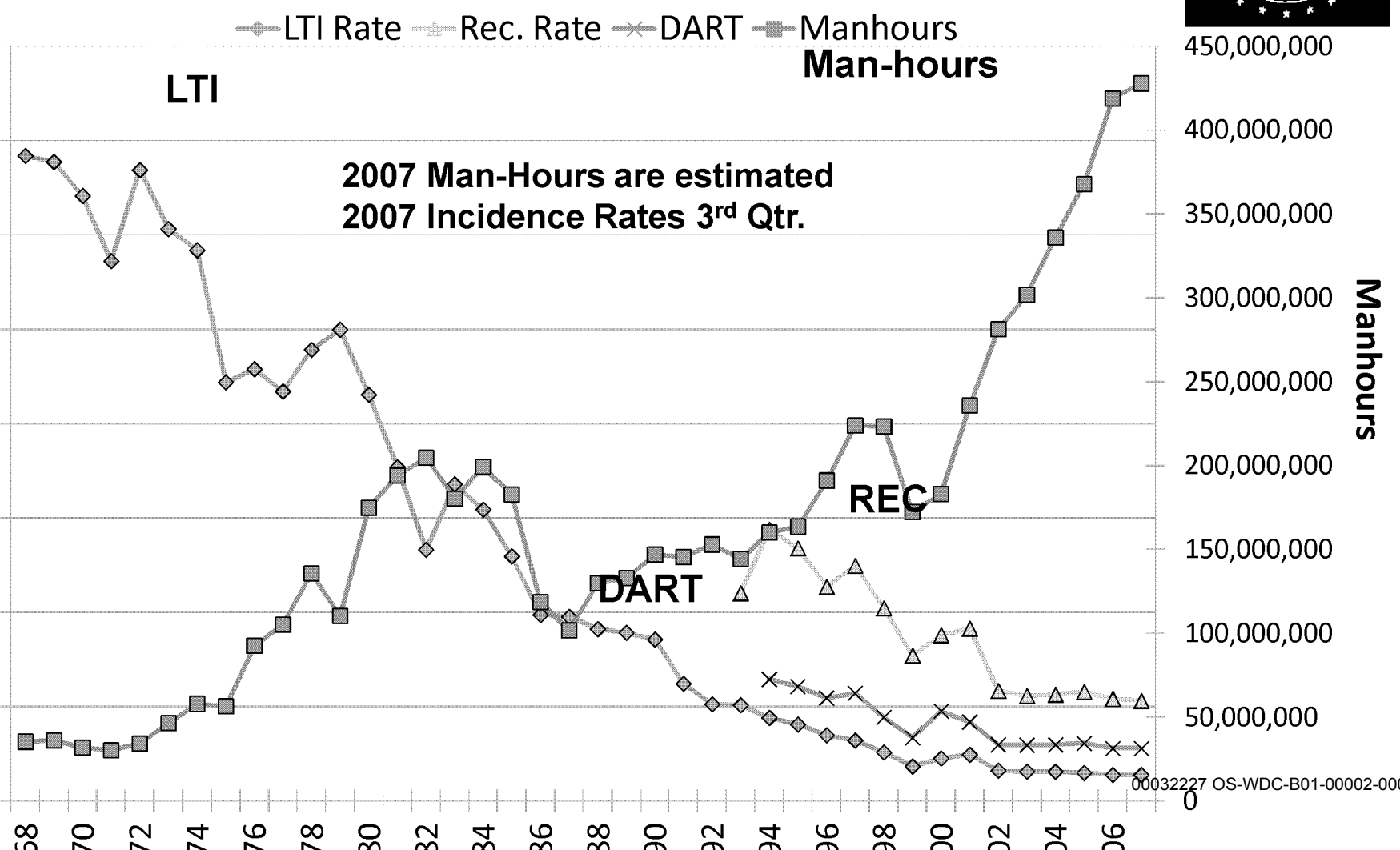
ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

- Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.
- One blowout associated with drilling. 1,688 barrels condensate spilled.
- One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.
- 2,500 barrels crude oil spilled.
- One blowout (Santa Barbara) was associated with drilling.
- 80,000 barrels spilled.
- One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.
- 30,000 barrels crude oil spilled.
- One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

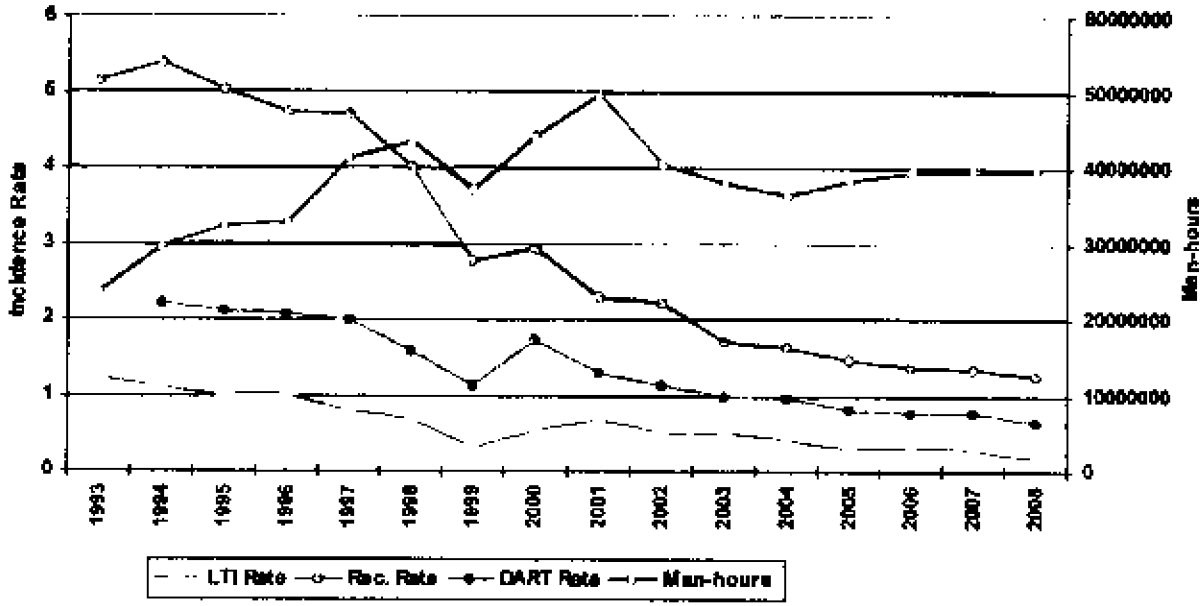
TOTAL INDUSTRY INCIDENCE RATES



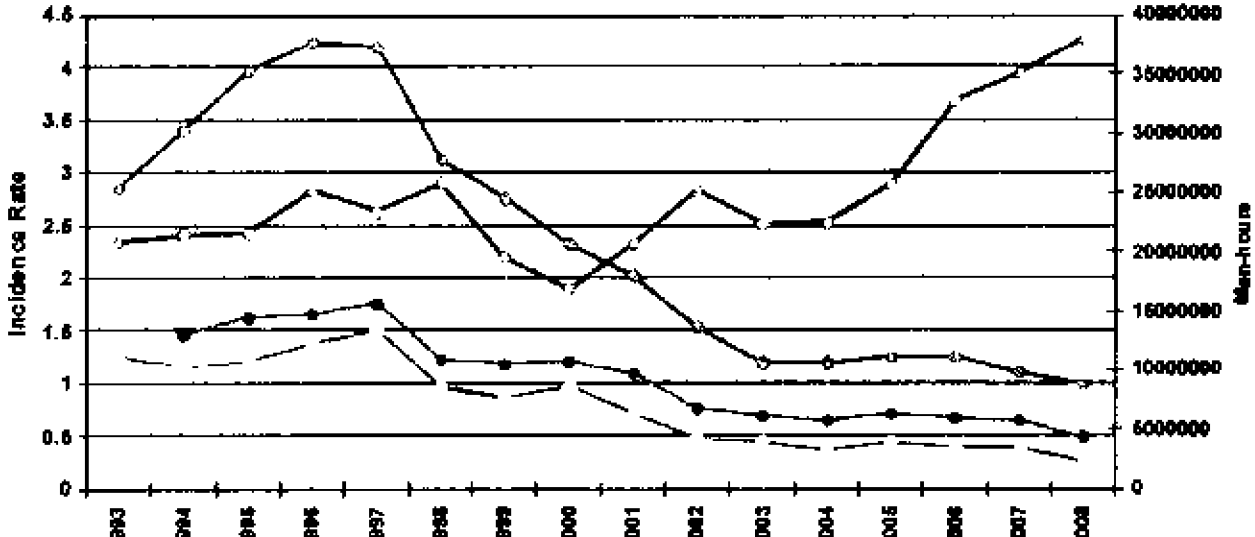
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

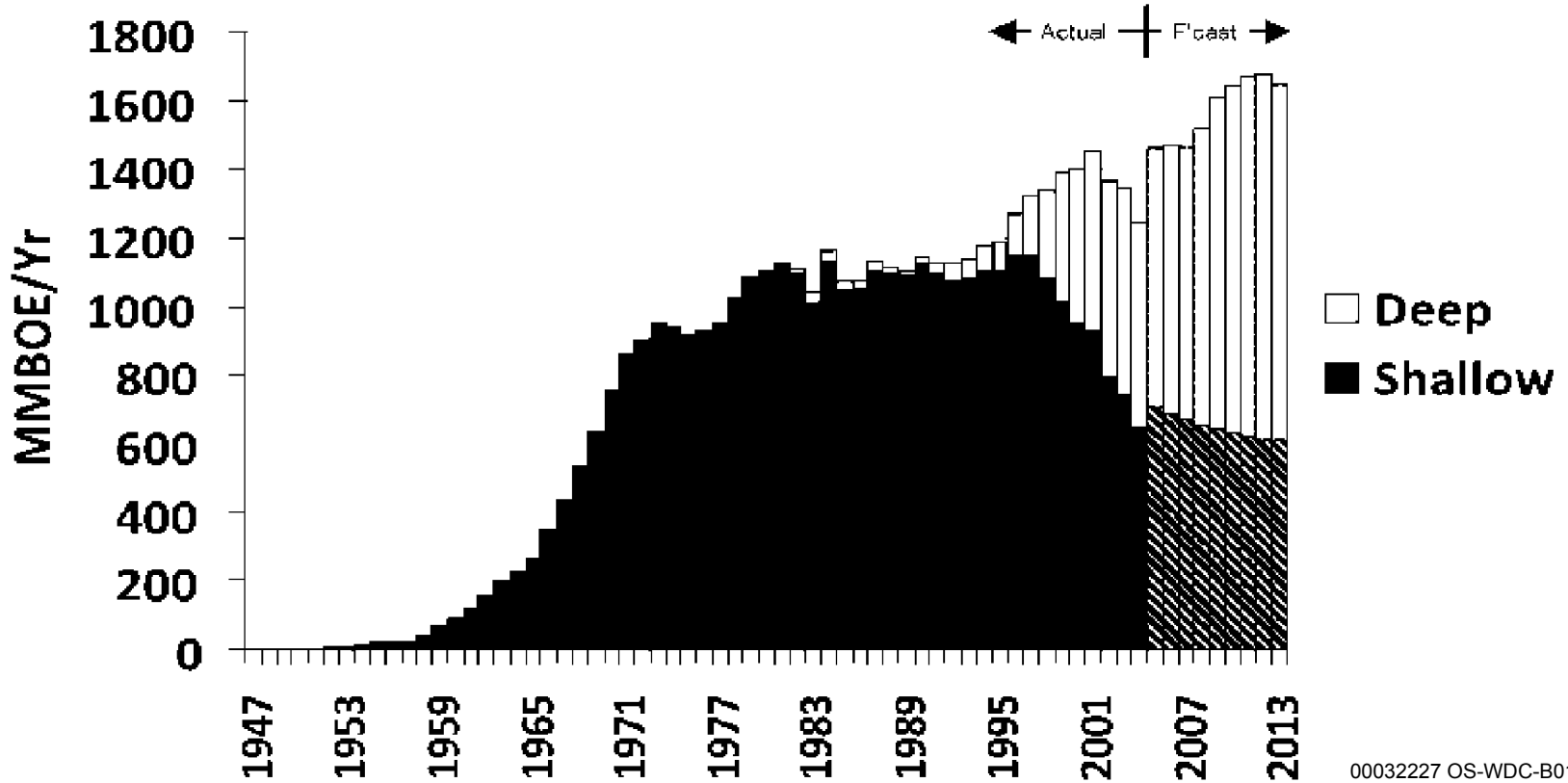


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

The bad

Understanding the Moratorium

You experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases you agreed with time frames of as long as 6 months and even in one or two cases longer. How can I face the American people and say drilling is safe before I can assure them that your own recommendations are carried out? By not allowing drilling until all the recommendations you told me are necessary to make drilling safe are in place I am honoring your technical analysis.

The Four Negatives of the Moratorium

The reasons for this are complicated, the moratorium will increase risk by:

- 1) requiring all drilling rigs to stop immediately and then re-enter wells at some future undefined date,
- 2) affecting the mix of rigs available for drilling once the moratorium is lifted- the best rigs are the first to go and last to return,
- 3) reducing the experience level of drilling staff as they go overseas or leave the industry, and
- 4) starting today increasing the amount of oil we have to import by tanker which history shows has a greater potential for spills

Effects of Moratorium on Rigs and Experienced Personnel

Best rigs and people will leave the Gulf

Recruitment of new people will stop – dealing with the unknown, and the best and brightest do not apply for uncertain jobs

Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.

While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "we can't afford safety wise to have a spring training."

The time to get back to drilling, remobilize, new well planning and inspection requirements with be several additional months/years; depending on how many rigs leave the gulf.

The industry feels the safest and most effective rig operations and personnel are being punished.

Manage risk

What is not in the report.

The level of risk varies significantly between well types based on exploration, geology, and categories

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted.

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require some modifications immediately

Provide a mechanism to allow rigs to remain in the Gulf of Mexico

Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Potential Steps to Re-Define the Moratorium to INCREASE Safety

Allow rigs to complete the work they are currently doing

Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)

Maintain the moratorium on the more risky wells.

Risky Wells

Exploration

Deepening existing wells

Less Risky Wells which Can be Drilled

Less risky to more risky:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood, Gas Injection
- Wells to Known Reservoirs
- Workovers
- Delineation Wells to Non-producing Reservoirs

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical rkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all floating drilling operations will be required to have two sets of blind shear rams spaced at least 4 feet apart (to prevent system failure if drill pipe joint or drill tool is across one set of rams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical
rkgroup to develop further improvements to ROV operating capabilities
luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This “safety case” should establish risk assessment and mitigation processes to manage a drilling contractor’s controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor’s management of change (MOC) and risk assessment to the lease operator’s MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Saturday, June 19, 2010 4:48 PM
To: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Cc: Black, Steve; Hanley, Kallie; Kemkar, Neal
Subject: Meeting Monday
Attachments: Presentation to Secretary of Interior - Rev 3.pptx

I have modified the power point based on comments received. I have put the detail listing of various levels of recommendations in the appendix and clarified the outline of the discussion. I will take another run at simplifying and clarifying so keep the cards and letters coming.

I am trying to get statistics on the percent of oil spilled from OCS operations and percent of oil spilled from tanker transportation. I have it for the OCS and I have average oil spilled per year from tankers in North America (30,000 barrels per year from 1990-1999) as opposed to an average of 3300 barrels/year from platforms and rigs (1970-2009 including two bad hurricane decades). The problem is I don't know how much of the 30,000 barrels to attribute to US alone (I am guessing 75% or 22,000). And I don't know how much oil and products are imported each year by tanker. If I assume twice as much is transported by tanker than produced on the OCS, than the ratio of 11,000 to 3300 is a measure of riskiness of importing by tanker rather than producing. It seems to be about 3 to 1. It gets even more complicated if you include bilge water and spills at offloading terminals on the one hand and produced water discharges from platforms on the other but let's not get into that. Sounds like a good Masters thesis and I don't have the time today.

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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why We Are Here
2. Putting the Risks in Context
3. Putting the Moratorium in Context
4. Measures that should be taken now to improve safety in the GOM

Why Are We Here

We are not here to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.

We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.

This is the time we all need to work together and we understand the job at hand.

This is not the time to punish the innocent nor further harm the public's interest .

Why Are We Here

The moratorium as currently defined INCREASES risk when drilling is eventually resumed.

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

We believe a moratorium is needed, but we believe it can be re-defined to reduce risk

- 1. Remove requirement for stopping operations
- 2. Require the implementation of many of the recommendations of the interim report including some not already included in NTL 05.
- 3. Allow drilling of "low risk" wells to maintain GOM drilling equipment and expertise.

Putting The Risks in Context

BP Oil Spill Disaster

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

- The well design was marginal
- Human errors in judgment were made at very key operational decision points
- Warning signs were overlooked on the rig
- There may have been some failure of equipment

This was all preventable by following currently in place standard practices.

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 4000 in over 1000 feet of water.

Last major incident resulting in oil coming ashore in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.

One blowout associated with drilling. 1,688 barrels condensate spilled.

One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.

2,500 barrels crude oil spilled.

One blowout (Santa Barbara) was associated with drilling.

80,000 barrels spilled.

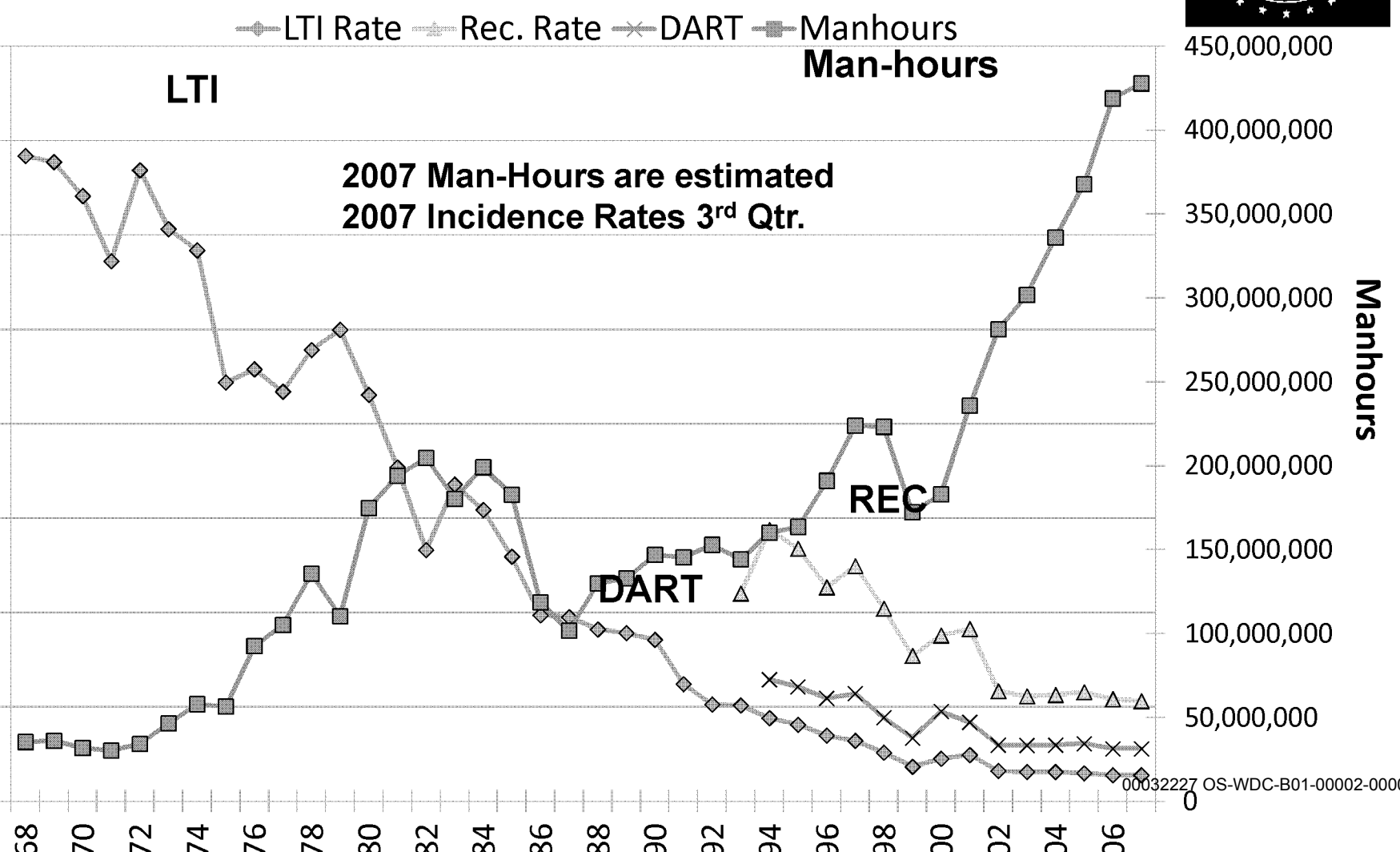
One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.

30,000 barrels crude oil spilled.

One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

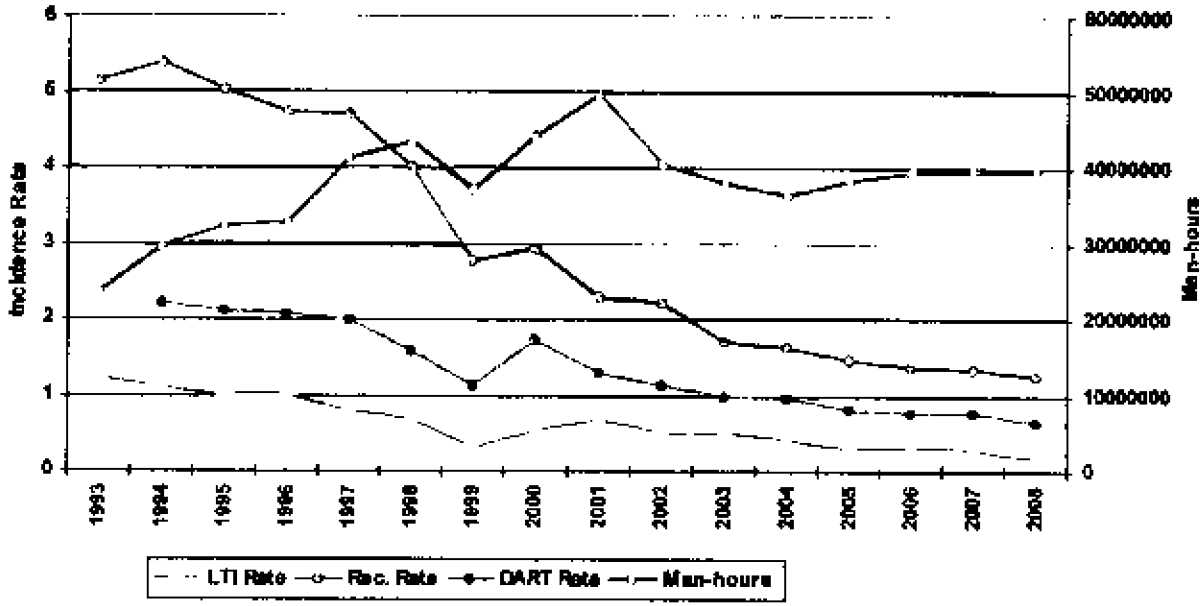
TOTAL INDUSTRY INCIDENCE RATES



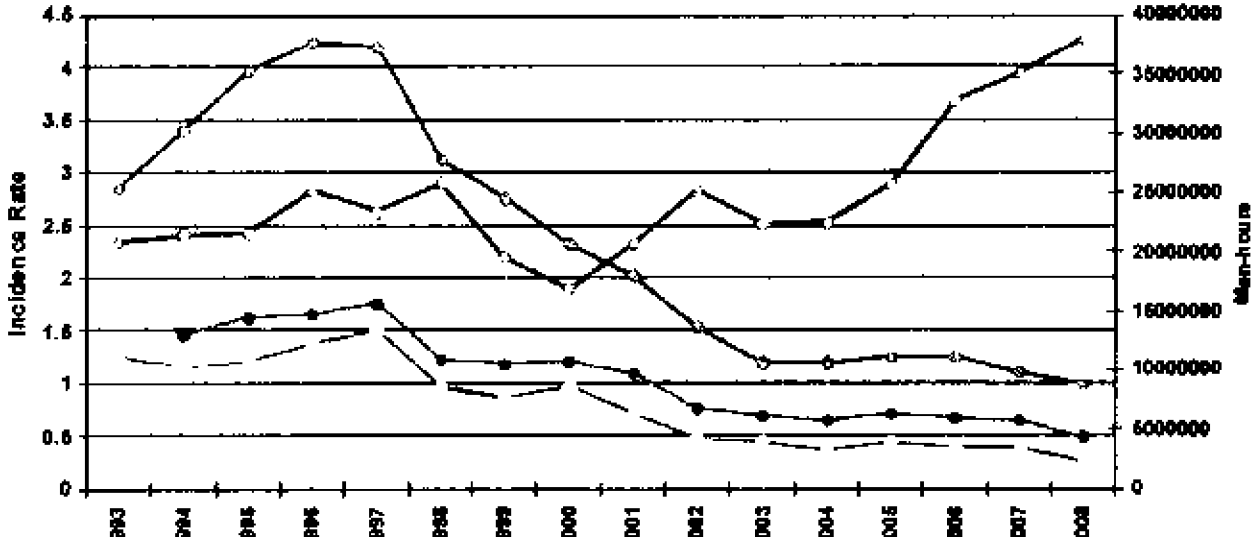
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

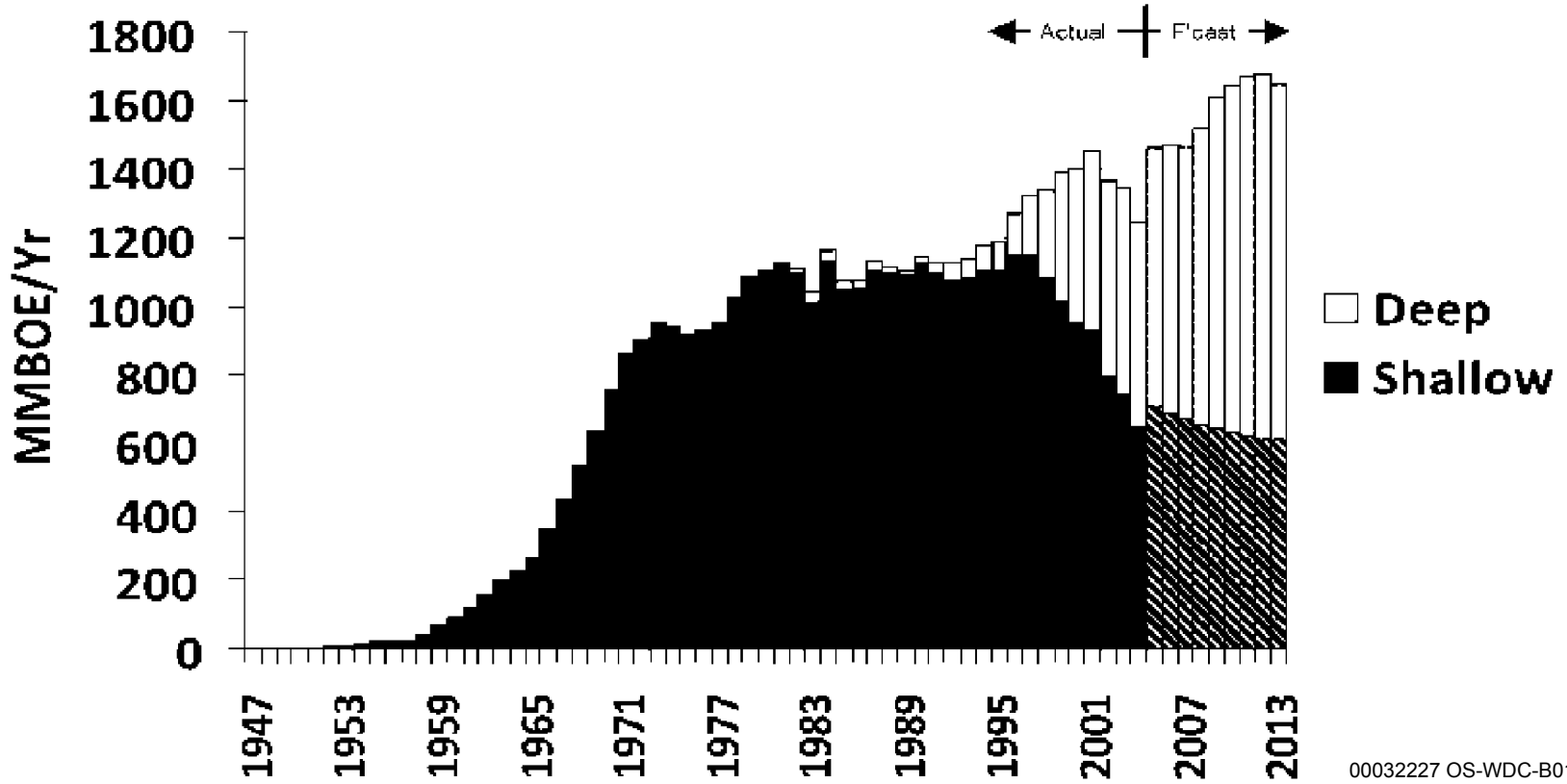


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

Understanding the Risks Summary

Even under existing conditions the record is good and improving at the same time that we are moving more and more into deep water

The Interim Report recommendations which can be implemented immediately (within 30 Days) should reduce the risk further but as the risks are low this is a marginal step

The Interim Report recommendations which take more time (up to 6 Months) should reduce the risks even further but in an even more marginal amount.

Putting the Moratorium in Context

Rationale for a Moratorium

We experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases we agreed with time frames of as long as 6 months and even in one or two cases longer. How can we face the American people and say drilling is safe before all of our own recommendations can be carried out?

By not allowing drilling until all the recommendations we told the DOI are necessary for safety are in place the DOI is honoring our technical analysis.

The “Four Negatives” of the Moratorium

The Moratorium itself increases risk by:

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

To reduce overall risk, the risk reductions which occur as a result of the Moratorium need to outweigh the added risks of the “four negatives”

As currently defined the Moratorium does not accomplish this objective

The Moratorium can be redefined to reduce risk

Effects of Stopping Operations

In any project risks are introduced when an appropriately planned operation is temporarily abandoned and then re-started at some future undetermined date.

- Macondo Well was being temporarily abandoned
- Montara Well was being re=entered after having been temporarily abandoned for four months

The Effect of the Moratorium on Rigs

- Best rigs will leave the Gulf first and come back last. This has a marginal negative impact on the overall safety of the fleet.
- Rigs will leave on long term contracts (2-5 years) and it will take a long time after the moratorium ends to get them back.
- The time to remobilize will take several additional months/years after the Moratorium is lifted and new rules in place.

Effects of Moratorium on Experienced Personnel

- Best people will leave the Gulf
- Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.
- Recruitment of new people will stop – the best and brightest do not apply for uncertain jobs
- While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "From a safety standpoint we can't afford to have a spring training."
- The industry feels the safest and most effective rig operations and personnel are being punished.

Measures that should be taken now to improve safety in the GOM

Manage Risk

The level of risk varies significantly between well types based on knowledge of formations being drilled and category of well

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted:

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require adoption of some Interim Report recommendations immediately

Provide a mechanism to allow rigs to remain working in the Gulf of Mexico

- Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Maintain Moratorium on "Risky Wells"

Steps to Re-Define the Moratorium to INCREASE Safety

- Allow rigs to complete the work they are currently doing
- Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)
  - 8 Recommendations Already in NTL 05
  - 5 Additional Recommendations which could be added
- Maintain the moratorium on the more risky wells
  - Remaining Recommendations requiring additional study.

Risky Wells

Exploration wells to previously undrilled strata

Deepening existing wells to previously undrilled strata

HP/HT Wells

Less Risky Wells which Can be Drilled

Listed in increasing degree of risk:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood and Gas Injection
- Wells to Known Reservoirs
- Workovers
- Delineation Wells to Non-producing Reservoirs

Wells in red above are already exempted from the moratorium by NTL 04

Conclusions

A moratorium is needed

It needs be defined taking into account ALL elements of risk, including the risks derived from the moratorium itself

Drilling can be made safer quickly by implementing many of the recommendations of the Interim Report

We should not ignore the “four Negatives” of the moratorium

It is justifiable to put a moratorium on “Risky Wells” to allow further thought and study

Appendices

30-Day Recommendations Already in NTL

Recommendations Which Could be Implemented But Are Not Currently in NTL

Recommendations to be Implemented After 30 Days

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all floating drilling operations will be required to have two sets of blind shear rams spaced at least 4 feet apart (to prevent system failure if drill pipe joint or drill tool is across one set of rams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical
rkgroup to develop further improvements to ROV operating capabilities
luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This "safety case" should establish risk assessment and mitigation processes to manage a drilling contractor's controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor's management of change (MOC) and risk assessment to the lease operator's MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Tom Williams [tom.williams@nautilus-int.com]
Sent: Saturday, June 19, 2010 5:38 PM
To: Ken Arnold; Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Martin Chenevert; Per Holand; Skip Ward
Cc: Black, Steve; Hanley, Kallie; Kemkar, Neal
Subject: Re: Meeting Monday

Thanks Ken and all the comments are appreciated. Good power points to leave behind. I spoke to a long time friend that works for a mostly democrat and well respected law firm in DC; strong colorado connections; he has known Salazar for a long time:
15 min attention span; well over his head; overwhelmed with the job he has; his staffers are obama worshipers; a relative weak manager and is dictated by the white house (browner); has little understanding of energy business, hates big oil - good news is he is a nice guy and likes smart guys so all of you will be well received. Suggestion was make an offer up front he can't refuse. Details are left for follow ons.

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From: "Ken Arnold" <karnold@karnoldconsulting.com>
Date: Sat, 19 Jun 2010 15:48:09 -0500
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Cc: 'Black, Steve'<steve_black@ios.doi.gov>; 'Hanley, Kallie'<Kallie_Hanley@ios.doi.gov>; 'Kemkar, Neal'<Neal_Kemkar@ios.doi.gov>
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Kenneth E. (Ken) Arnold
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Nguyen, Ngoc B

From: Benton Baugh [bbaugh@radoil.com]
Sent: Saturday, June 19, 2010 6:16 PM
To: tom.williams@nautilus-int.com; 'Ken Arnold'; 'Bob Bea'; 'Ford Brett'; 'Hans Juvkam-Wold'; 'Martin Chenevert'; 'Per Holand'; 'Skip Ward'
Cc: Black, Steve; Hanley, Kallie; Kemkar, Neal
Subject: RE: Meeting Monday

I would be surprised if he has a 15 minute attention span. It would be appropriate to clearly state the case by slide 2 that he could say yes or no to. (b) (5) [redacted]

Benton

From: Tom Williams [mailto:tom.williams@nautilus-int.com]
Sent: Saturday, June 19, 2010 4:38 PM
To: Ken Arnold; Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Martin Chenevert; Per Holand; Skip Ward
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Nguyen, Ngoc B

From: Kemkar, Neal
Sent: Saturday, June 19, 2010 8:08 PM
To: 'tom.williams@nautilus-int.com'; 'karnold@karnoldconsulting.com'; 'bbaugh@radoil.com'; 'bea@ce.berkeley.edu'; 'fbrett@petroskills.com'; 'juvkam-wold@pe.tamu.edu'; 'mechenevert@austin.utexas.edu'; 'Per.holand@exprosoft.com'; 'egward@tamu.edu'
Cc: Black, Steve; Hanley, Kallie
Subject: Re: Meeting Monday

Thanks for the compliments to us and our boss, Tom. Please take your preparation offline. See many of you Monday.

Best,
Neal

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To: Ken Arnold <karnold@karnoldconsulting.com>; Benton Baugh <bbaugh@radoil.com>; Bob Bea <bea@ce.berkeley.edu>; Ford Brett <fbrett@petroskills.com>; Hans Juvkam-Wold <juvkam-wold@pe.tamu.edu>; Martin Chenevert <mechenevert@austin.utexas.edu>; Per Holand <Per.holand@exprosoft.com>; Skip Ward <egward@tamu.edu>
Cc: Black, Steve; Hanley, Kallie; Kemkar, Neal
Sent: Sat Jun 19 17:37:49 2010
Subject: Re: Meeting Monday

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Kenneth E. (Ken) Arnold
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3031 Shadowdale
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Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

Nguyen, Ngoc B

From: Mail Delivery System [MAILER-DAEMON@os-mail-4.tamu.edu]
To: egward@otrc.tamu.edu
Sent: Saturday, June 19, 2010 8:10 PM
Subject: Undeliverable: Meeting Monday

The following message to <egward@otrc.tamu.edu> was undeliverable.

The reason for the problem:

Re Meeting Monday

5.1.0 - Unknown address error 530-'5.7.1 Client was not authenticated'

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Saturday, June 19, 2010 9:38 PM
To: Kemkar, Neal
Subject: RE: Meeting Monday

For the record...I am a proud Obama worshiper even though I work and live in communities where such a stance is unpopular. (b) (6) still has her Hillary and Obama stickers on her car and only gets nasty notes left behind occasionally.

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www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Saturday, June 19, 2010 7:08 PM
To: 'tom.williams@nautilus-int.com'; 'karnold@karnoldconsulting.com'; 'bbaugh@radoil.com'; 'bea@ce.berkeley.edu'; 'fbrett@petroskills.com'; 'juvkam-wold@pe.tamu.edu'; 'mechenevert@austin.utexas.edu'; 'Per.holand@exprosoft.com'; 'egward@tamu.edu'
Cc: Black, Steve; Hanley, Kallie
Subject: Re: Meeting Monday

Thanks for the compliments to us and our boss, Tom. Please take your preparation offline. See many of you Monday.

Best,
Neal

From: Tom Williams <tom.williams@nautilus-int.com>
To: Ken Arnold <karnold@karnoldconsulting.com>; Benton Baugh <bbaugh@radoil.com>; Bob Bea <bea@ce.berkeley.edu>; Ford Brett <fbrett@petroskills.com>; Hans Juvkam-Wold <juvkam-wold@pe.tamu.edu>; Martin Chenevert <mechenevert@austin.utexas.edu>; Per Holand <Per.holand@exprosoft.com>; Skip Ward <egward@tamu.edu>
Cc: Black, Steve; Hanley, Kallie; Kemkar, Neal
Sent: Sat Jun 19 17:37:49 2010
Subject: Re: Meeting Monday

Thanks Ken and all the comments are appreciated. Good power points to leave behind. I spoke to a long time friend that works for a mostly democrat and well respected law firm in DC; strong colorado connections; he has known Salazar for a long time:
15 min attention span; well over his head; overwhelmed with the job he has; his staffers are obama worshipers; a relative weak manager and is dictated by the white house (browner); has little understanding of energy business, hates big oil - good news is he is a nice guy and likes smart guys so all of you will be well received. Suggestion was make an offer up front he can't refuse. Details are left for follow ons.

Sent via BlackBerry by AT&T

From: "Ken Arnold" <karnold@karnoldconsulting.com>
Date: Sat, 19 Jun 2010 15:48:09 -0500
To: Benton Baugh<bbaugh@radoil.com>; Bob Bea<bea@ce.berkeley.edu>; Ford Brett<fbrett@petroskills.com>; Hans Juvkam-Wold<juvkam-wold@pe.tamu.edu>; Ken Arnold<karnold@karnoldconsulting.com>; Martin Chenevert<mechenevert@austin.utexas.edu>; Per Holand<Per.holand@exprosoft.com>; Skip Ward<egward@tamu.edu>; Tom Williams<Tom.Williams@Nautilus-Int.com>
Cc: 'Black, Steve'<steve_black@ios.doi.gov>; 'Hanley, Kallie'<Kallie_Hanley@ios.doi.gov>; 'Kemkar, Neal'<Neal_Kemkar@ios.doi.gov>
Subject: Meeting Monday

I have modified the power point based on comments received. I have put the detail listing of various levels of recommendations in the appendix and clarified the outline of the discussion. I will take another run at simplifying and clarifying so keep the cards and letters coming.

I am trying to get statistics on the percent of oil spilled from OCS operations and percent of oil spilled from tanker transportation. I have it for the OCS and I have average oil spilled per year from tankers in North America (30,000 barrels per year from 1990-1999) as opposed to an average of 3300 barrels/year from platforms and rigs (1970-2009 including two bad hurricane decades). The problem is I don't know how much of the 30,000 barrels to attribute to US alone (I am guessing 75% or 22,000). And I don't know how much oil and products are imported each year by tanker. If I assume twice as much is transported by tanker than produced on the OCS, than the ratio of 11,000 to 3300 is a measure of riskiness of importing by tanker rather than producing. It seems to be about 3 to 1. It gets even more complicated if you include bilge water and spills at offloading terminals on the one hand and produced water discharges from platforms on the other but let's not get into that. Sounds like a good Masters thesis and I don't have the time today.

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Nguyen, Ngoc B

From: Juvkam-Wold, Hans [juvkam-wold@pe.tamu.edu]
Sent: Sunday, June 20, 2010 9:11 AM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Lindsay,

Thanks for sending the call-in information. The meeting starts at 10 a.m. Washington time, is that correct?

Hans

~~~
~~~

know by 3:00pm EASTERN tomorrow if you will be able to participate. Please be sure to indicate whether you will be attending in person or via phone. We will reach out to you with arrival instructions or a conference call number following our receipt of your participation.

Thank you,

Lindsay Dubin
Special Assistant
Office of Scheduling and Advance
The U.S. Department of the Interior
p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov<mailto:brian_screnar@ios.doi.gov>

Nguyen, Ngoc B

From: Morlandt, Christopher
Sent: Monday, June 21, 2010 8:32 AM
To: Ken Arnold
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Good morning Mr. Arnold,

We have everything covered, and will have a projector, screen and laptop set-up in the Secretary's office for the 10:00 am meeting. What time are you currently looking at arriving? I will talk to you soon.

Chris Morlandt
202-257-2645

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Saturday, June 19, 2010 9:32 PM
To: Morlandt, Christopher
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Chris

We will have a power point presentation to show the Secretary. I will have a flash drive and also my computer if we need it. Can you arrange for everything else.

Ken

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Houston, TX 77043
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Home: 713-939-1034
www.karnoldconsulting.com

From: Morlandt, Christopher [mailto:Christopher_Morlandt@ios.doi.gov]
Sent: Friday, June 18, 2010 10:10 AM
To: Ken Arnold
Cc: Hanley, Kallie; Dubin, Lindsay
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Good morning Mr. Arnold,

My name is Chris Morlandt and I will be assisting you with the entry into our building on Monday 6-21-2010. We are located at 1849 C st. NW directly across from DAR Constitution hall. I have notified our security team of your arrival and so there will be no need to sign in / go through metal detectors. I will personally meet you downstairs in our C st. lobby entrance and escort you up to the meeting. If you have any questions whatsoever -- please do not hesitate to give me a call. I look forward to meeting you on Monday and I hope you have a wonderful weekend.

Respectfully,

Chris Morlandt
(202)-257-2645

From: Dubin, Lindsay
Sent: Friday, June 18, 2010 10:27 AM
To: Ken Arnold
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie; Morlandt, Christopher
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

Hi Ken,

Glad to hear that you will be attending. Christopher Morlandt from the Secretary's office, who is cc'd, will be reaching out to you today with arrival instructions.

Look forward to seeing you Monday,

Lindsay

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Thursday, June 17, 2010 6:45 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Meeting with Secretary Salazar Monday 6.21.10

I will attend in person. Please let me know who else was invited.

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Houston, TX 77043
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Home: 713-939-1034
www.karnoldconsulting.com

From: Dubin, Lindsay [mailto:Lindsay_Dubin@ios.doi.gov]
Sent: Thursday, June 17, 2010 5:23 PM
To: Dubin, Lindsay
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Meeting with Secretary Salazar Monday 6.21.10

Good evening,

Interior Secretary Ken Salazar hopes that you can participate in a meeting at 10:00am EASTERN Monday, June 21, 2010 as a follow-up to Tuesday's conference call regarding the 30-day report on Increased Safety Measures for Energy Development on the Outer Continental Shelf. For those of you who are unable to join this meeting in person, there will be a call-in option for you to participate remotely. This meeting/conference call is limited to the people who have received this email. Please let Kallie Hanley (cc'd) and me know by 3:00pm EASTERN tomorrow if you will be able to participate. Please be sure to indicate whether you will be attending in person or via phone. We will reach out to you with arrival instructions or a conference call number following our receipt of your participation.

Thank you,

Lindsay Dubin
Special Assistant
Office of Scheduling and Advance
The U.S. Department of the Interior
p: (202) 208-7551 | f: (202) 208-4694
lindsay_dubin@ios.doi.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Tuesday, June 22, 2010 8:44 AM
To: Black, Steve; Kemkar, Neal; Hanley, Kallie
Cc: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Subject: FW: DOI report

In the email below you can see I have been asked to forward a copy of the power point. I suggested the staff person contact DOI direct. In the meantime, I have also been contacted by several reporters for copies. (b) (5) [redacted].

[redacted].

Please **reply to all** with your thoughts.

Ken

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Home: 713-939-1034
www.karnoldconsulting.com

From: Moore, Kristina [mailto:Kristina.Moore@mail.house.gov]
Sent: Monday, June 21, 2010 1:07 PM
To: karnold@karnoldconsulting.com
Subject: DOI report

Mr. Arnold,

Thank you for your time this afternoon. As I mentioned on the phone, I am a senior investigator for Ranking Member Darrell Issa of the House Oversight and Government Reform Committee. The Wall Street Journal article, "Crude Politics," which discusses your concern for an increased safety risk associated with the six month moratorium, caught his eye. Accordingly, I have been instructed to learn more about possible alternatives to the moratorium that would not increase the risk to future drilling operations. In particular, he has expressed interest in proposals such as the "drill but not tap" strategy, which could have the benefit of keeping rigs operating, thereby reducing their incentive to leave the Gulf.

As such, I am very interested in obtaining a copy of the power point presentation you provided to the Department of Interior with these recommendations, as well as any other information that can help inform this discussion. Our standard operating procedure is to notify the source before any public dissemination of documents provided to the Committee and otherwise accommodate specific requests for confidential treatment.

Additionally, I am happy to make the identical request of the Department of Interior. However, you should know that the Department has been less than responsive to pretty much any Congressional investigation, relying heavily on the explanation that "all hands are on deck" responding to the crisis. If you could provide me with identifying characteristics of

the report (date, time, location, of the presentation, and the title of the presentation) that could help facilitate the processing of our request.

I am happy to respond to any questions that you may have and hope that we can start an open dialogue as we work to respond to the disaster in the Gulf.

Many Thanks,

Kristina Moore

Kristina M. Moore

Senior Counsel

Rep. Darrell Issa

Ranking Member of House Oversight and Government Reform

(202) 226-6080

Kristina.Moore@mail.house.gov

Nguyen, Ngoc B

From: Kemkar, Neal
Sent: Tuesday, June 22, 2010 9:06 AM
To: 'karnold@karnoldconsulting.com'
Cc: Black, Steve; Hanley, Kallie
Subject: Re: DOI report

Thanks Ken. Your decisions are your own. You know that.

The Secretary did invite you back in two weeks to continue the discussion on the moratorium and asked that you stay engaged with his top deputies in the meantime. The NYT, to the best of my knowledge, was not in the room for our discussion. You were.

From: Ken Arnold <karnold@karnoldconsulting.com>
To: Black, Steve; Kemkar, Neal; Hanley, Kallie
Cc: Benton Baugh <bbaugh@radoil.com>; Bob Bea <bea@ce.berkeley.edu>; Ford Brett <fbrett@petroskills.com>; Hans Juvkam-Wold <juvkam-wold@pe.tamu.edu>; Ken Arnold <karnold@karnoldconsulting.com>; Martin Chenevert <mechenevert@austin.utexas.edu>; Per Holand <Per.holand@exprosoft.com>; Skip Ward <egward@tamu.edu>; Tom Williams <Tom.Williams@Nautilus-Int.com>
Sent: Tue Jun 22 08:43:48 2010
Subject: FW: DOI report

In the email below you can see I have been asked to forward a copy of the power point. I suggested the staff person contact DOI direct. In the meantime, I have also been contacted by several reporters for copies. (b) (5) [redacted] (b) (5) [redacted].

[redacted].

Please **reply to all** with your thoughts.

Ken

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Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Moore, Kristina [mailto:Kristina.Moore@mail.house.gov]
Sent: Monday, June 21, 2010 1:07 PM
To: karnold@karnoldconsulting.com
Subject: DOI report

Mr. Arnold,

Thank you for your time this afternoon. As I mentioned on the phone, I am a senior investigator for Ranking Member Darrell Issa of the House Oversight and Government Reform Committee. The Wall Street Journal article, "Crude Politics," which discusses your concern for an increased safety risk associated with the six month moratorium, caught his eye. Accordingly, I have been instructed to learn more about possible alternatives to the moratorium that would not increase the risk to future drilling operations. In particular, he has expressed interest in proposals such as the "drill but not tap" strategy, which could have the benefit of keeping rigs operating, thereby reducing their incentive to leave the Gulf.

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I am happy to respond to any questions that you may have and hope that we can start an open dialogue as we work to respond to the disaster in the Gulf.

Many Thanks,

Kristina Moore

Kristina M. Moore

Senior Counsel

Rep. Darrell Issa

Ranking Member of House Oversight and Government Reform

(202) 226-6080

Kristina.Moore@mail.house.gov

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Wednesday, June 23, 2010 7:47 PM
To: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Power Point Presented to Secretary Salazar on 6/21/2010
Attachments: Presentation to Secretary of Interior - Rev 4.pptx

You are receiving this because you expressed an interest in having a copy of the subject report. DOI has been asked if they have a problem with us distributing this to whomever asks and have not expressed an objection. Those present at the meeting or by phone were the original signers of the Group of 8, plus Per Holland and Arnold Stancell. Bob Bea and Skip Ward were unable to participate. From DOI attendees beside the Secretary included David Hayes, Tom Strickland, The new Director of the MMS Mike B (please excuse my inability to spell his last name as I am traveling and don't really have time to look it up).

The people contributing to this power point besides myself are:

Benton Baugh (bbaugh@radoil.com)
Bob Bea (bea@ce.berkeley.edu)
Ford Brett (fbrett@petroskills.com)
Hans Juvkam-Wold (juvkam-wold@pe.tamu.edu)
Martin Chenevert (mechenevert@austin.utexas.edu)
Per Holand (Per.holand@exprosoft.com)
Skip Ward (egward@tamu.edu)
Tom Williams (Tom.Williams@Nautilus-Int.com)

The list of those getting this is as follows, but I have copied only two at a time so it is not blocked by a spam filter:

Robert Arnold (rarnold@kprc.com)
Ted Oberg (ted.oberg@abc.com)
Power, Stephen [Stephen.Power@wsj.com]
Naomi Lopez Bauman [(b) (6) [redacted]]
V. Peyton Bruns [(b) (6) [redacted]]
KENDALL KULPER, BLOOMBERG/ NEWSROOM: [kkulper1@bloomberg.net]
Guarino, Mark [GuarinoM@csmonitor.com]
Rosenblum, Carl [crosenblum@joneswalker.com]

The Secretary has expressed an interest in meeting with us in two weeks with a wider audience.

Please be advised I am in SE Asia and will return to Houston Tuesday the 30th in the afternoon. Do not call my cell phone unless it is important as it is an expensive call for me. Also I have been unable to pick up my phone messages since leaving the US. I may be able to pick them up when I leave Viet Nom for Singapore Sunday but am not sure.

Kenneth E. (Ken) Arnold
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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why We Are Here
2. Putting the Risks in Context
3. Putting the Moratorium in Context
4. Measures that should be taken now to improve safety in the GOM
5. Conclusions
6. Appendices

Why Are We Here

We are not here to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.

We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.

This is the time we all need to work together and we understand the job at hand.

This is not the time to punish the innocent nor further harm the public's interest .

Why Are We Here

The moratorium as currently defined INCREASES risk when drilling is eventually resumed.

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

We believe a moratorium is needed, but we believe it can be re-defined to reduce risk

- 1. Remove requirement for stopping operations
- 2. Require the implementation of many of the recommendations of the interim report including some not already included in NTL 05.
- 3. Allow drilling of "low risk" wells to maintain GOM drilling equipment and expertise.

Putting The Risks in Context

BP Oil Spill Disaster

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

- The well design was marginal
- Human errors in judgment were made at very key operational decision points
- Warning signs were overlooked on the rig
- There may have been some failure of equipment

This was all preventable by following currently in place standard practices.

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 4000 in over 1000 feet of water.

Last major incident resulting in oil coming ashore in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.

One blowout associated with drilling. 1,688 barrels condensate spilled.

One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.

2,500 barrels crude oil spilled.

One blowout (Santa Barbara) was associated with drilling.

80,000 barrels spilled.

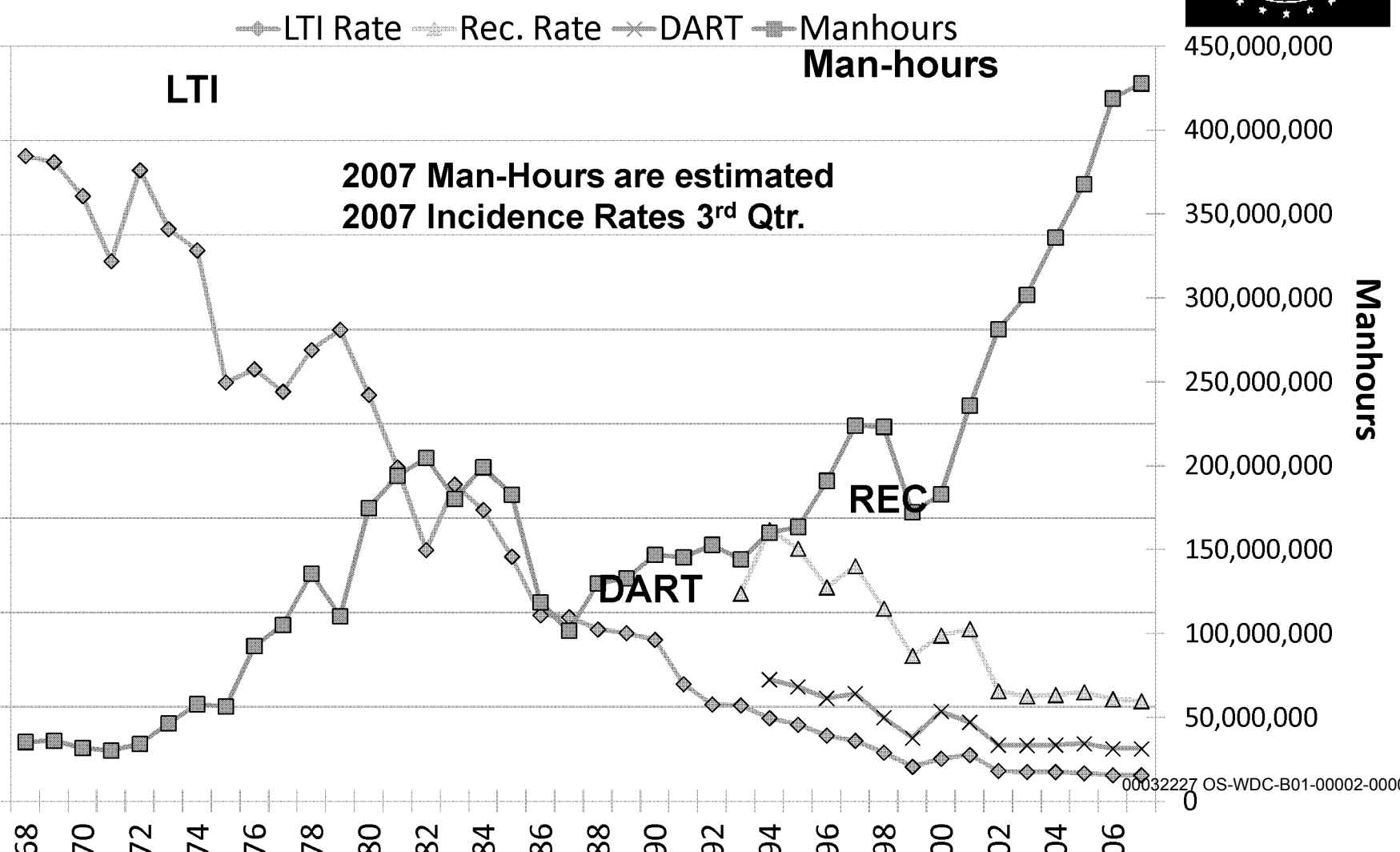
One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.

30,000 barrels crude oil spilled.

One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

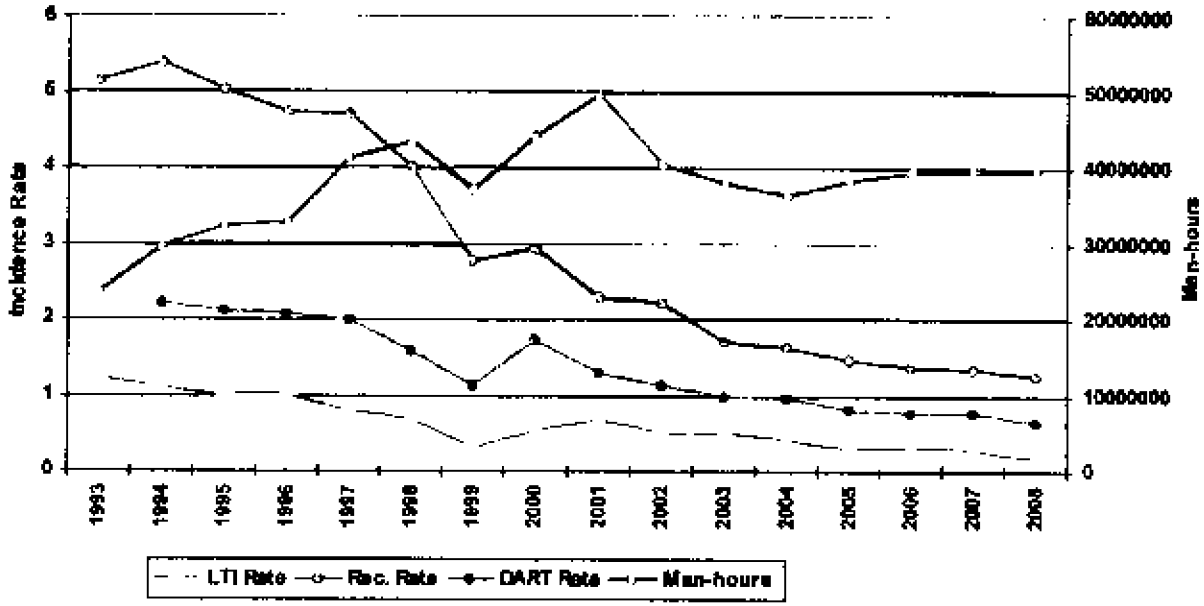
TOTAL INDUSTRY INCIDENCE RATES



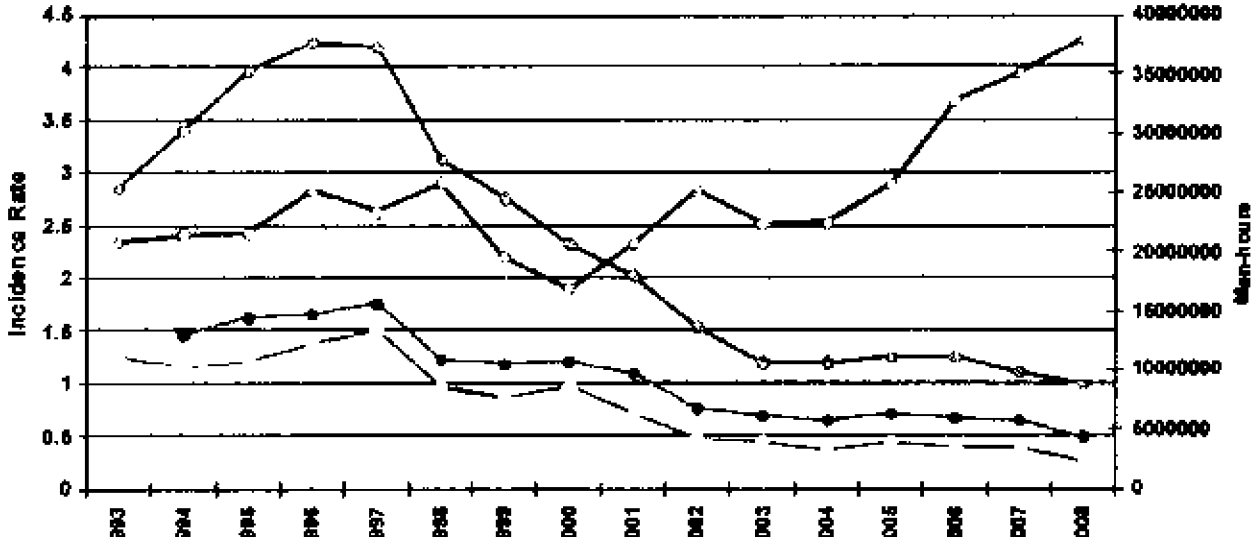
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

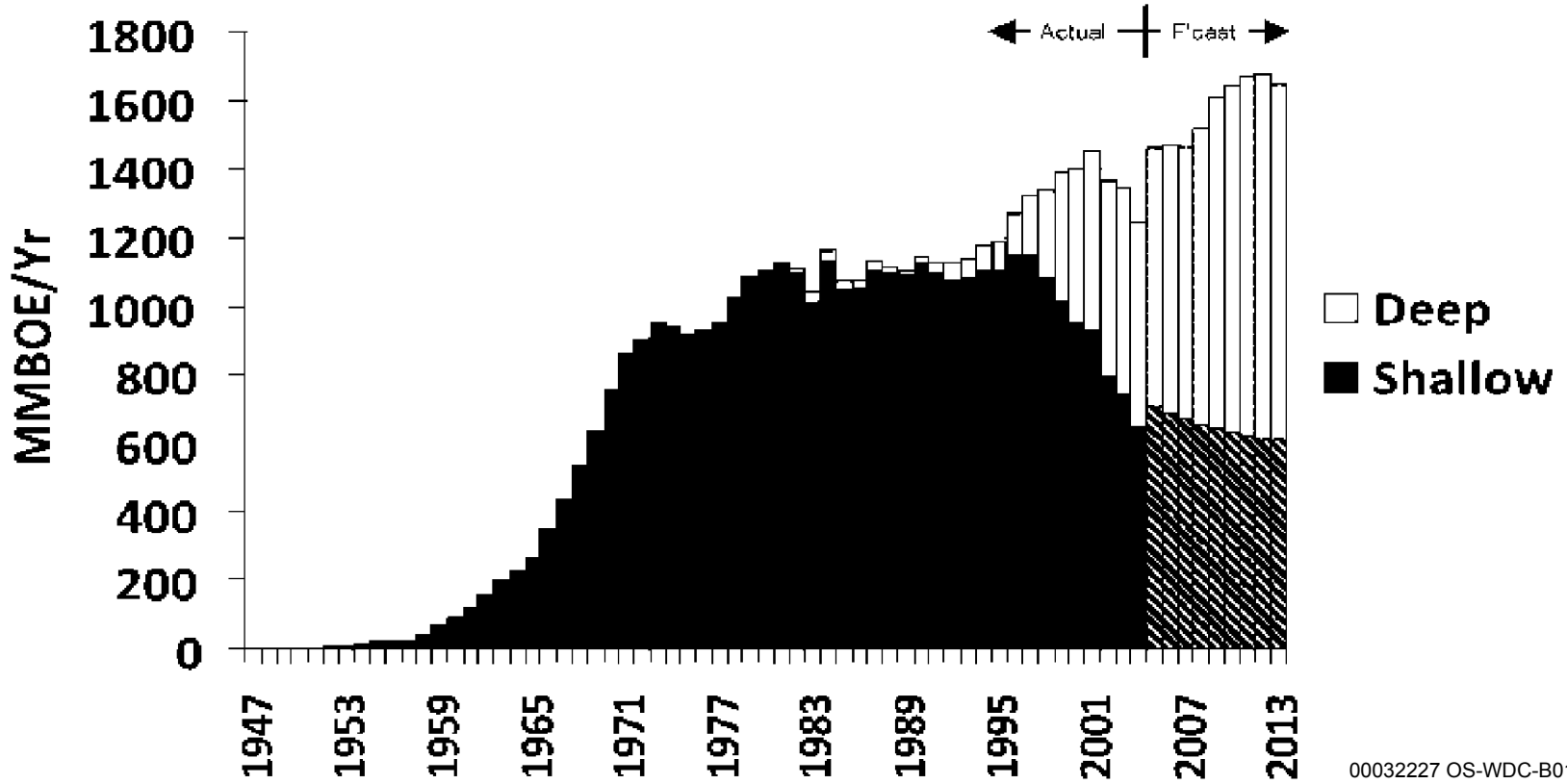


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

Understanding the Risks Summary

Even under existing conditions the record is good and improving at the same time that we are moving more and more into deep water

The Interim Report recommendations which can be implemented immediately (within 30 Days) should reduce the risk further but as the risks are low this is a marginal step

The Interim Report recommendations which take more time (up to 6 Months) should reduce the risks even further but in an even more marginal amount.

Putting the Moratorium in Context

Rationale for a Moratorium

We experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases we agreed with time frames of as long as 6 months and even in one or two cases longer. How can we face the American people and say drilling is safe before all of our own recommendations can be carried out?

By not allowing drilling until all the recommendations we told the DOI are necessary for safety are in place the DOI is honoring our technical analysis.

The “Four Negatives” of the Moratorium

The Moratorium itself increases risk by:

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

To reduce overall risk, the risk reductions which occur as a result of the Moratorium need to outweigh the added risks of the “four negatives”

As currently defined the Moratorium does not accomplish this objective

The Moratorium can be redefined to reduce risk

Effects of Stopping Operations

In any project risks are introduced when an appropriately planned operation is temporarily abandoned and then re-started at some future undetermined date.

- Macondo Well was being temporarily abandoned
- Montara Well was being re=entered after having been temporarily abandoned for four months

The Effect of the Moratorium on Rigs

- Best rigs will leave the Gulf first and come back last. This has a marginal negative impact on the overall safety of the fleet.
- Rigs will leave on long term contracts (2-5 years) and it will take a long time after the moratorium ends to get them back.
- The time to remobilize will take several additional months/years after the Moratorium is lifted and new rules in place.

Effects of Moratorium on Experienced Personnel

- Best people will leave the Gulf
- Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.
- Recruitment of new people will stop – the best and brightest do not apply for uncertain jobs
- While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "From a safety standpoint we can't afford to have a spring training."
- The industry feels the safest and most effective rig operations and personnel are being punished.

Effects of Moratorium on Tanker Spills

- Source: NRC, “Oil in the Seas”, 2003
- Data for the period 1990-1999 (no one time disaster like Exxon Valdez or BP Macondo)
- Average Best Estimate of Oil Spilled in US waters from offshore platforms and pipelines: 7,000 barrels per year
- Average Best Estimate of Oil Spilled <u>in US waters</u> from tankers: 26,000 barrels per year
  - Does not include spills from US bound tankers in foreign or international waters
  - Does not include spills from marine terminals, refineries and storage tanks
  - Does not include spills at international loading terminals or in producing the oil transported

Measures that should be taken now to improve safety in the GOM

Manage Risk

The level of risk varies significantly between well types based on knowledge of formations being drilled and category of well

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted:

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require adoption of some Interim Report recommendations immediately

Provide a mechanism to allow rigs to remain working in the Gulf of Mexico

- Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Maintain Moratorium on "Risky Wells"

Steps to Re-Define the Moratorium to INCREASE Safety

- Allow rigs to complete the work they are currently doing
- Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)
  - 8 Recommendations Already in NTL 05
  - 5 Additional Recommendations which could be added
- Maintain the moratorium on the more risky wells
  - Remaining Recommendations requiring additional study.

Risky Wells

Exploration wells to previously undrilled strata

Deepening existing wells to previously undrilled strata

HP/HT Wells

Less Risky Wells which Can be Drilled

Listed in increasing degree of risk:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood and Gas Injection
- Development Wells to Known Reservoirs
- Workovers
- Drilling to the base of the salt section in deep exploration wells
- Delineation Wells to Non-producing Reservoirs

Wells in red above are already exempted from the moratorium by NTL 04

Conclusions

A moratorium is needed

It needs be defined taking into account ALL elements of risk, including the risks derived from the moratorium itself

Drilling can be made safer quickly by implementing many of the recommendations of the Interim Report

We should not ignore the “Four Negatives” of the moratorium

Allow drilling of “Less Risky Wells” to avoid the Four Negatives

It is justifiable to put a moratorium on “Risky Wells” to allow further thought and study

Appendices

30-Day Recommendations Already in NTL

Recommendations Which Could be Implemented But Are Not Currently in NTL

Recommendations to be Implemented After 30 Days

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all floating drilling operations will be required to have two sets of blind shear rams spaced at least 4 feet apart (to prevent system failure if drill pipe joint or drill tool is across one set of rams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical rkgroup to develop further improvements to ROV operating capabilities luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This “safety case” should establish risk assessment and mitigation processes to manage a drilling contractor’s controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor’s management of change (MOC) and risk assessment to the lease operator’s MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Wednesday, June 23, 2010 7:47 PM
To: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Power Point Presented to Secretary Salazar on 6/21/2010
Attachments: Presentation to Secretary of Interior - Rev 4.pptx

You are receiving this because you expressed an interest in having a copy of the subject report. DOI has been asked if they have a problem with us distributing this to whomever asks and have not expressed an objection. Those present at the meeting or by phone were the original signers of the Group of 8, plus Per Holland and Arnold Stancell. Bob Bea and Skip Ward were unable to participate. From DOI attendees beside the Secretary included David Hayes, Tom Strickland, The new Director of the MMS Mike B (please excuse my inability to spell his last name as I am traveling and don't really have time to look it up).

The people contributing to this power point besides myself are:

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The list of those getting this is as follows, but I have copied only two at a time so it is not blocked by a spam filter:

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The Secretary has expressed an interest in meeting with us in two weeks with a wider audience.

Please be advised I am in SE Asia and will return to Houston Tuesday the 30th in the afternoon. Do not call my cell phone unless it is important as it is an expensive call for me. Also I have been unable to pick up my phone messages since leaving the US. I may be able to pick them up when I leave Viet Nom for Singapore Sunday but am not sure.

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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why We Are Here
2. Putting the Risks in Context
3. Putting the Moratorium in Context
4. Measures that should be taken now to improve safety in the GOM
5. Conclusions
6. Appendices

Why Are We Here

We are not here to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.

We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.

This is the time we all need to work together and we understand the job at hand.

This is not the time to punish the innocent nor further harm the public's interest .

Why Are We Here

The moratorium as currently defined INCREASES risk when drilling is eventually resumed.

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

We believe a moratorium is needed, but we believe it can be re-defined to reduce risk

- 1. Remove requirement for stopping operations
- 2. Require the implementation of many of the recommendations of the interim report including some not already included in NTL 05.
- 3. Allow drilling of "low risk" wells to maintain GOM drilling equipment and expertise.

Putting The Risks in Context

BP Oil Spill Disaster

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

- The well design was marginal
- Human errors in judgment were made at very key operational decision points
- Warning signs were overlooked on the rig
- There may have been some failure of equipment

This was all preventable by following currently in place standard practices.

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 4000 in over 1000 feet of water.

Last major incident resulting in oil coming ashore in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.

One blowout associated with drilling. 1,688 barrels condensate spilled.

One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.

2,500 barrels crude oil spilled.

One blowout (Santa Barbara) was associated with drilling.

80,000 barrels spilled.

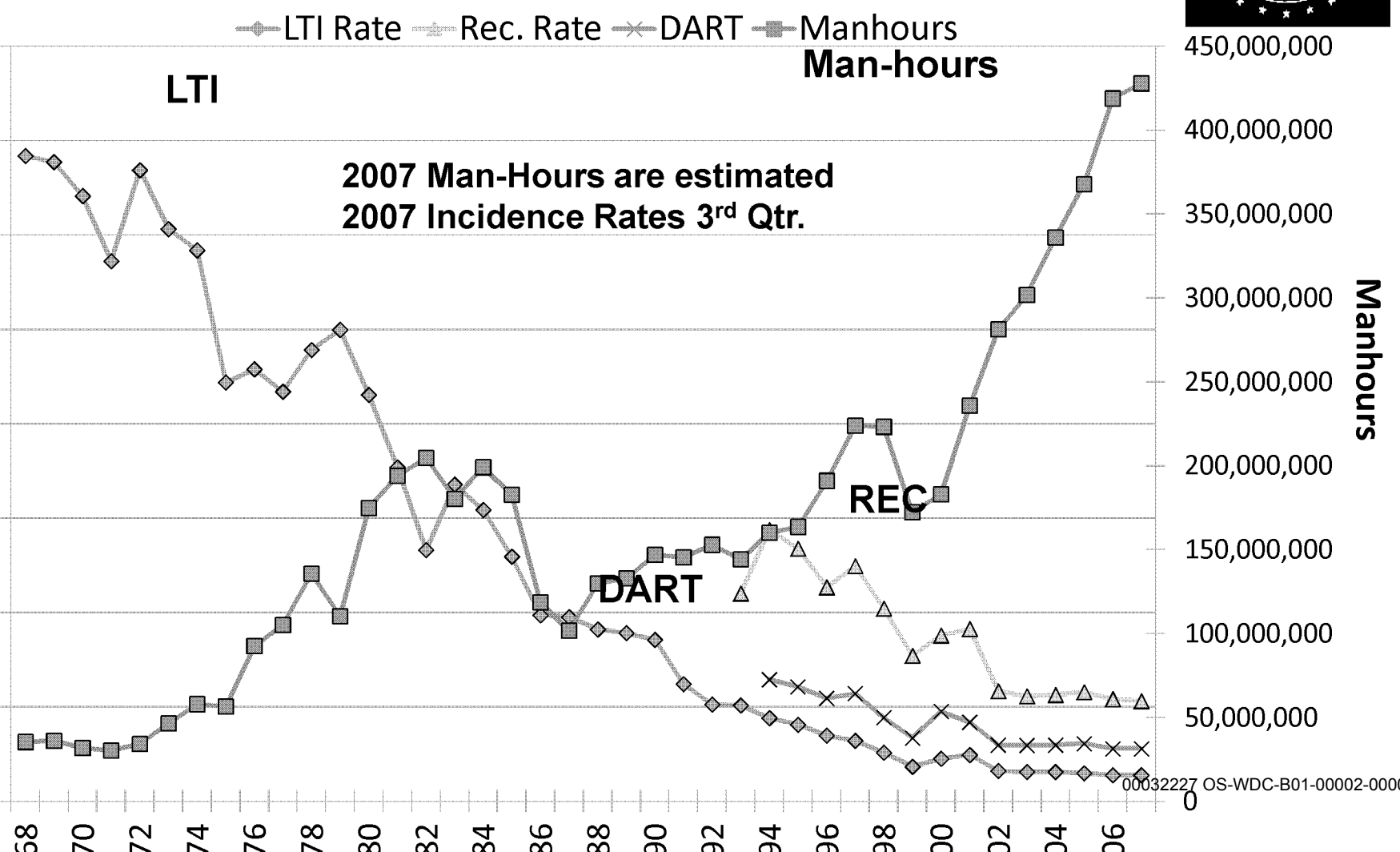
One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.

30,000 barrels crude oil spilled.

One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

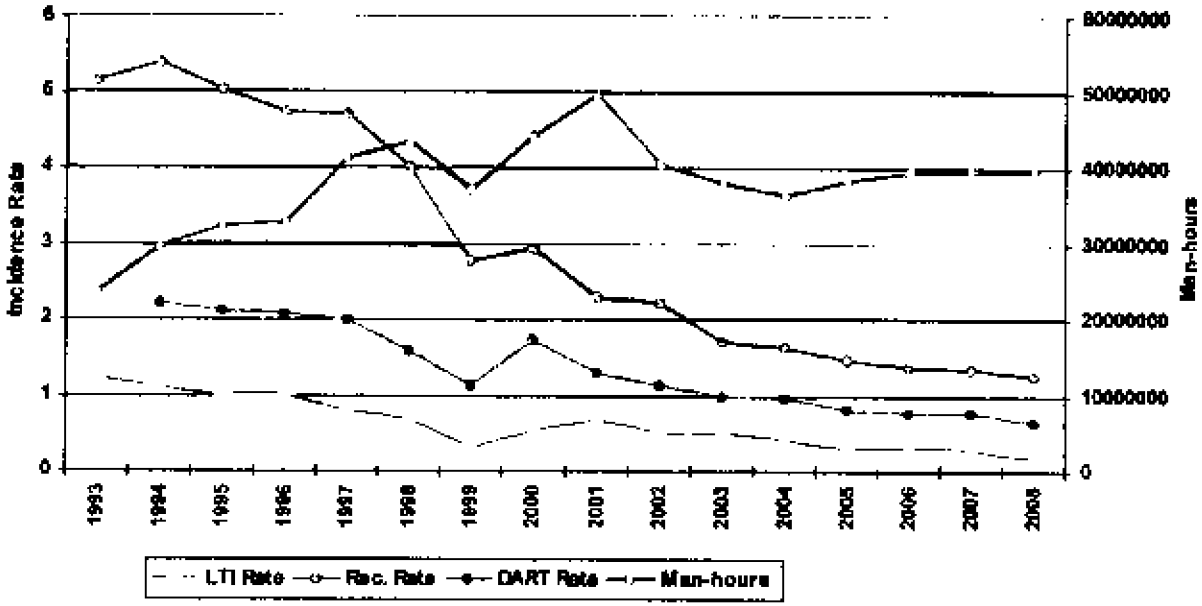
TOTAL INDUSTRY INCIDENCE RATES



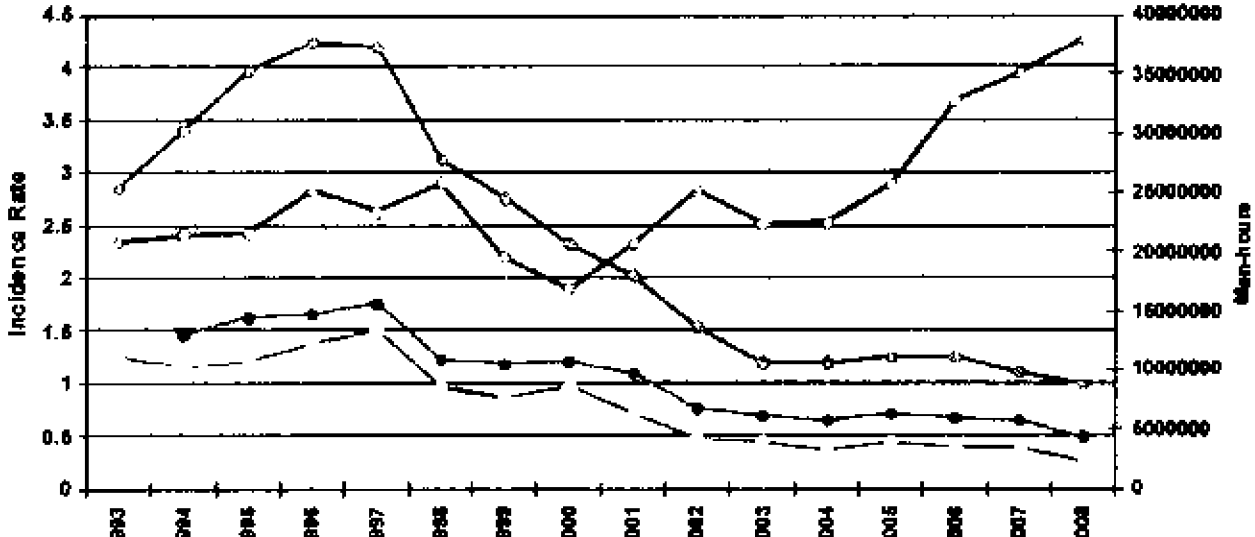
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

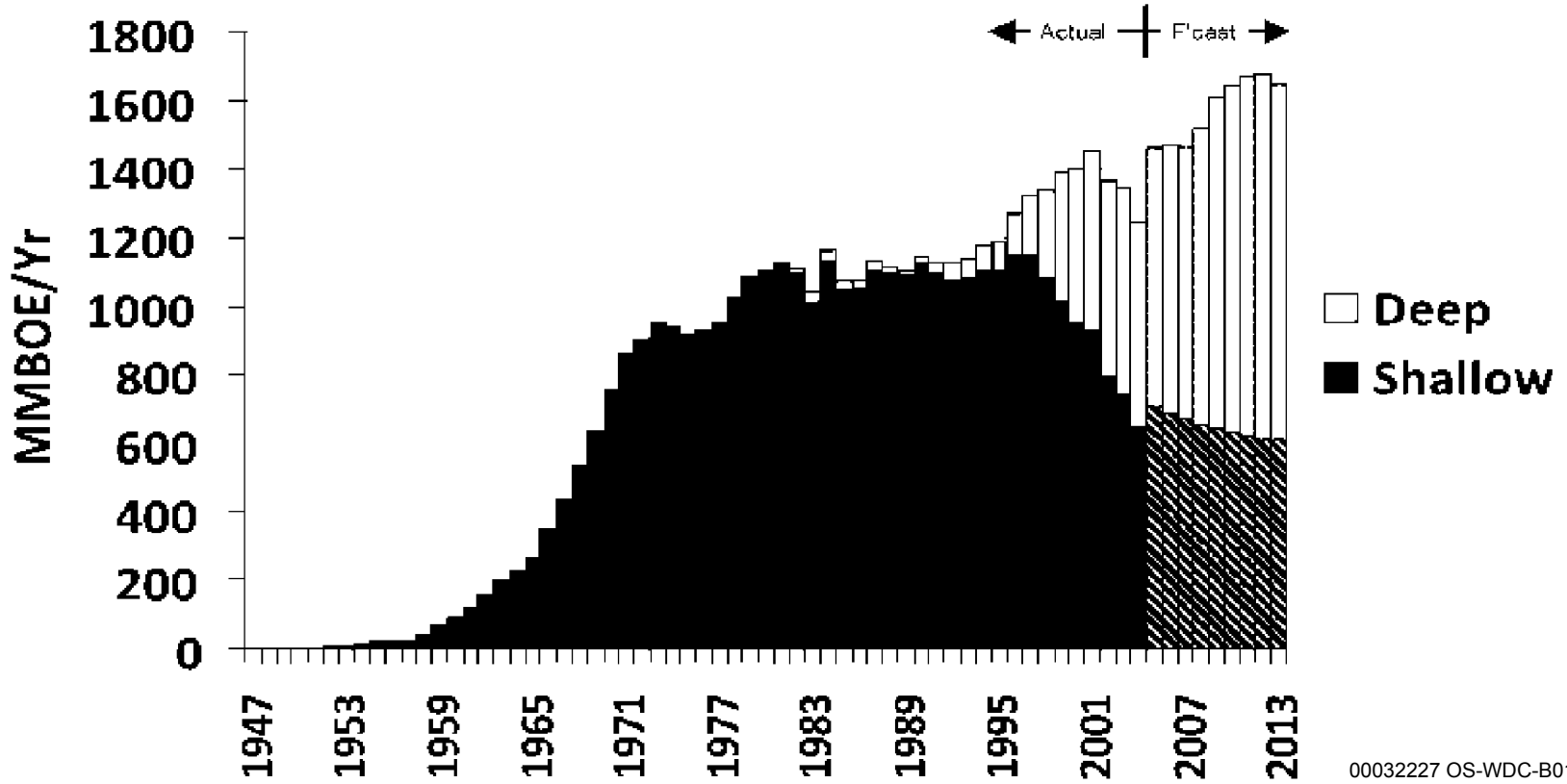


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

Understanding the Risks Summary

Even under existing conditions the record is good and improving at the same time that we are moving more and more into deep water

The Interim Report recommendations which can be implemented immediately (within 30 Days) should reduce the risk further but as the risks are low this is a marginal step

The Interim Report recommendations which take more time (up to 6 Months) should reduce the risks even further but in an even more marginal amount.

Putting the Moratorium in Context

Rationale for a Moratorium

We experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases we agreed with time frames of as long as 6 months and even in one or two cases longer. How can we face the American people and say drilling is safe before all of our own recommendations can be carried out?

By not allowing drilling until all the recommendations we told the DOI are necessary for safety are in place the DOI is honoring our technical analysis.

The “Four Negatives” of the Moratorium

The Moratorium itself increases risk by:

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

To reduce overall risk, the risk reductions which occur as a result of the Moratorium need to outweigh the added risks of the “four negatives”

As currently defined the Moratorium does not accomplish this objective

The Moratorium can be redefined to reduce risk

Effects of Stopping Operations

In any project risks are introduced when an appropriately planned operation is temporarily abandoned and then re-started at some future undetermined date.

- Macondo Well was being temporarily abandoned
- Montara Well was being re=entered after having been temporarily abandoned for four months

The Effect of the Moratorium on Rigs

- Best rigs will leave the Gulf first and come back last. This has a marginal negative impact on the overall safety of the fleet.
- Rigs will leave on long term contracts (2-5 years) and it will take a long time after the moratorium ends to get them back.
- The time to remobilize will take several additional months/years after the Moratorium is lifted and new rules in place.

Effects of Moratorium on Experienced Personnel

- Best people will leave the Gulf
- Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.
- Recruitment of new people will stop – the best and brightest do not apply for uncertain jobs
- While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "From a safety standpoint we can't afford to have a spring training."
- The industry feels the safest and most effective rig operations and personnel are being punished.

Effects of Moratorium on Tanker Spills

- Source: NRC, “Oil in the Seas”, 2003
- Data for the period 1990-1999 (no one time disaster like Exxon Valdez or BP Macondo)
- Average Best Estimate of Oil Spilled in US waters from offshore platforms and pipelines: 7,000 barrels per year
- Average Best Estimate of Oil Spilled <u>in US waters</u> from tankers: 26,000 barrels per year
  - Does not include spills from US bound tankers in foreign or international waters
  - Does not include spills from marine terminals, refineries and storage tanks
  - Does not include spills at international loading terminals or in producing the oil transported

Measures that should be taken now to improve safety in the GOM

Manage Risk

The level of risk varies significantly between well types based on knowledge of formations being drilled and category of well

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted:

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require adoption of some Interim Report recommendations immediately

Provide a mechanism to allow rigs to remain working in the Gulf of Mexico

- Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Maintain Moratorium on "Risky Wells"

Steps to Re-Define the Moratorium to INCREASE Safety

- Allow rigs to complete the work they are currently doing
- Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)
  - 8 Recommendations Already in NTL 05
  - 5 Additional Recommendations which could be added
- Maintain the moratorium on the more risky wells
  - Remaining Recommendations requiring additional study.

Risky Wells

Exploration wells to previously undrilled strata

Deepening existing wells to previously undrilled strata

HP/HT Wells

Less Risky Wells which Can be Drilled

Listed in increasing degree of risk:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood and Gas Injection
- Development Wells to Known Reservoirs
- Workovers
- Drilling to the base of the salt section in deep exploration wells
- Delineation Wells to Non-producing Reservoirs

Wells in red above are already exempted from the moratorium by NTL 04

Conclusions

A moratorium is needed

It needs be defined taking into account ALL elements of risk, including the risks derived from the moratorium itself

Drilling can be made safer quickly by implementing many of the recommendations of the Interim Report

We should not ignore the “Four Negatives” of the moratorium

Allow drilling of “Less Risky Wells” to avoid the Four Negatives

It is justifiable to put a moratorium on “Risky Wells” to allow further thought and study

Appendices

30-Day Recommendations Already in NTL

Recommendations Which Could be Implemented But Are Not Currently in NTL

Recommendations to be Implemented After 30 Days

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all floating drilling operations will be required to have two sets of blind shear rams spaced at least 4 feet apart (to prevent system failure if drill pipe joint or drill tool is across one set of rams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical rkgroup to develop further improvements to ROV operating capabilities luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh k at how to deal with a deepwater blowout. The conventional last resort method to control a wout is to drill a relief well. In deep water this can take several months. But the reality of ng several months to stop a high flowing well at deep water depths was difficult to imagine il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response erience, should work toward being able to stop a spill resulting from a deepwater blowout. erators should work to be in a position to submit, with their Exploration or Development ns, an emergency response plan that addresses resources (including common resources) that uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide is, to develop and procure a response package for deep water incidents, to include diagnostic l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and nmunications support, and plans and concepts of operations that can quickly be deployed in event of an unanticipated blowout. Assess and certify potential options, e.g., deep water persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This “safety case” should establish risk assessment and mitigation processes to manage a drilling contractor’s controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor’s management of change (MOC) and risk assessment to the lease operator’s MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Ken Arnold [karnold@karnoldconsulting.com]
Sent: Wednesday, June 23, 2010 7:47 PM
To: Benton Baugh; Bob Bea; Ford Brett; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams
Cc: Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Power Point Presented to Secretary Salazar on 6/21/2010
Attachments: Presentation to Secretary of Interior - Rev 4.pptx

You are receiving this because you expressed an interest in having a copy of the subject report. DOI has been asked if they have a problem with us distributing this to whomever asks and have not expressed an objection. Those present at the meeting or by phone were the original signers of the Group of 8, plus Per Holland and Arnold Stancell. Bob Bea and Skip Ward were unable to participate. From DOI attendees beside the Secretary included David Hayes, Tom Strickland, The new Director of the MMS Mike B (please excuse my inability to spell his last name as I am traveling and don't really have time to look it up).

The people contributing to this power point besides myself are:

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The list of those getting this is as follows, but I have copied only two at a time so it is not blocked by a spam filter:

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The Secretary has expressed an interest in meeting with us in two weeks with a wider audience.

Please be advised I am in SE Asia and will return to Houston Tuesday the 30th in the afternoon. Do not call my cell phone unless it is important as it is an expensive call for me. Also I have been unable to pick up my phone messages since leaving the US. I may be able to pick them up when I leave Viet Nom for Singapore Sunday but am not sure.

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Presentation to Secretary of Interior

June 21, 2010

Outline of the Discussion

1. Why We Are Here
2. Putting the Risks in Context
3. Putting the Moratorium in Context
4. Measures that should be taken now to improve safety in the GOM
5. Conclusions
6. Appendices

Why Are We Here

We are not here to provide an economic justification – jobs, revenue lost, etc. That is the job for economists.

We feel safety will be compromised if the 6 month ban is extended to all wells in the GoM over 500 feet in water depth.

This is the time we all need to work together and we understand the job at hand.

This is not the time to punish the innocent nor further harm the public's interest .

Why Are We Here

The moratorium as currently defined INCREASES risk when drilling is eventually resumed.

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

We believe a moratorium is needed, but we believe it can be re-defined to reduce risk

- 1. Remove requirement for stopping operations
- 2. Require the implementation of many of the recommendations of the interim report including some not already included in NTL 05.
- 3. Allow drilling of "low risk" wells to maintain GOM drilling equipment and expertise.

Putting The Risks in Context

BP Oil Spill Disaster

We were not asked to provide analysis of the Horizon incident, but as information has been discovered it is clear best practices were not followed.

- The well design was marginal
- Human errors in judgment were made at very key operational decision points
- Warning signs were overlooked on the rig
- There may have been some failure of equipment

This was all preventable by following currently in place standard practices.

Safety Record of Drilling on the OCS

Over 50,000 wells drilled. 4000 in over 1000 feet of water.

Last major incident resulting in oil coming ashore in 1969. 41 years ago.

From 1970 until April 2010 a total of 1800 barrels of oil spilled due to blowouts.

All measurements of safety indices have shown a steady level of improvement since modern MMS regulations came into effect in 1970.

Record is better than or equal to that or any other region of the world.

Crude Oil Spills from Platform and Rigs from Federal OCS Activities

ears	**Production** (Thousand BBls)	**Number of Spills**	**Barrels Spilled** (Thousand BBls)
960-1969	1,460,000	13	99
970-1979	3,455,000	32	106
980-1989	3,387,000	38	7
990-1999	4,051,000	15	2
000-2009	5,450,000	72	18

lowout Events Exceeding 1,000 Barrels on OCS

Two blowouts associated with a hurricane event that destroyed four platforms. Total of 10,280 barrels crude oil spilled.

One blowout associated with drilling. 1,688 barrels condensate spilled.

One blowout that occurred when a supply vessel collided with a drilling rig during a storm and sheared the wellhead.

2,500 barrels crude oil spilled.

One blowout (Santa Barbara) was associated with drilling.

80,000 barrels spilled.

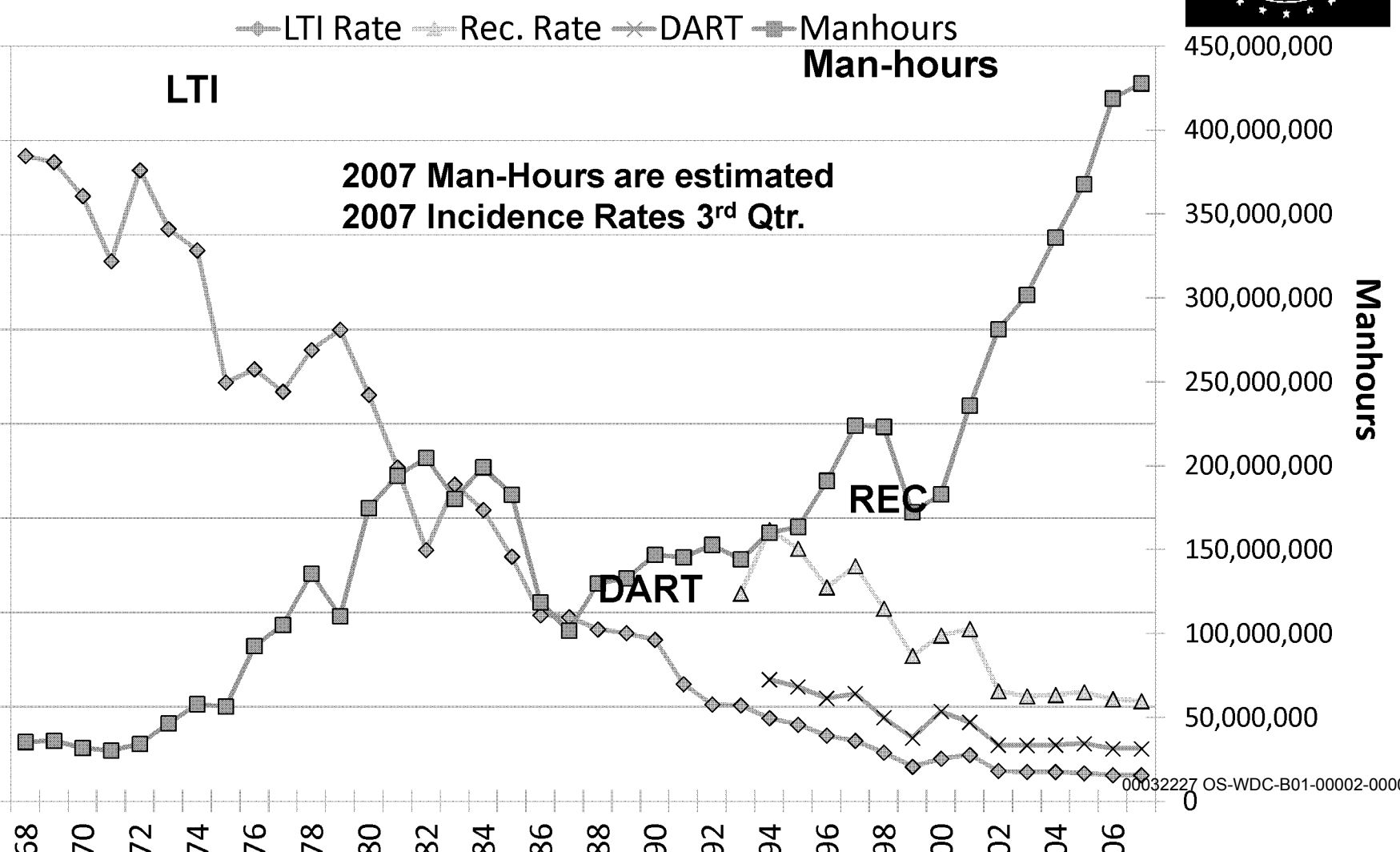
One blowout was caused by a fire in the production area that resulted in the loss of control of 12 wells on the platform.

30,000 barrels crude oil spilled.

One blowout associated with wireline work during workover operations. 53,000 barrels spilled.

om 1971 through 2009, a total of 1,784 barrels was spilled as a

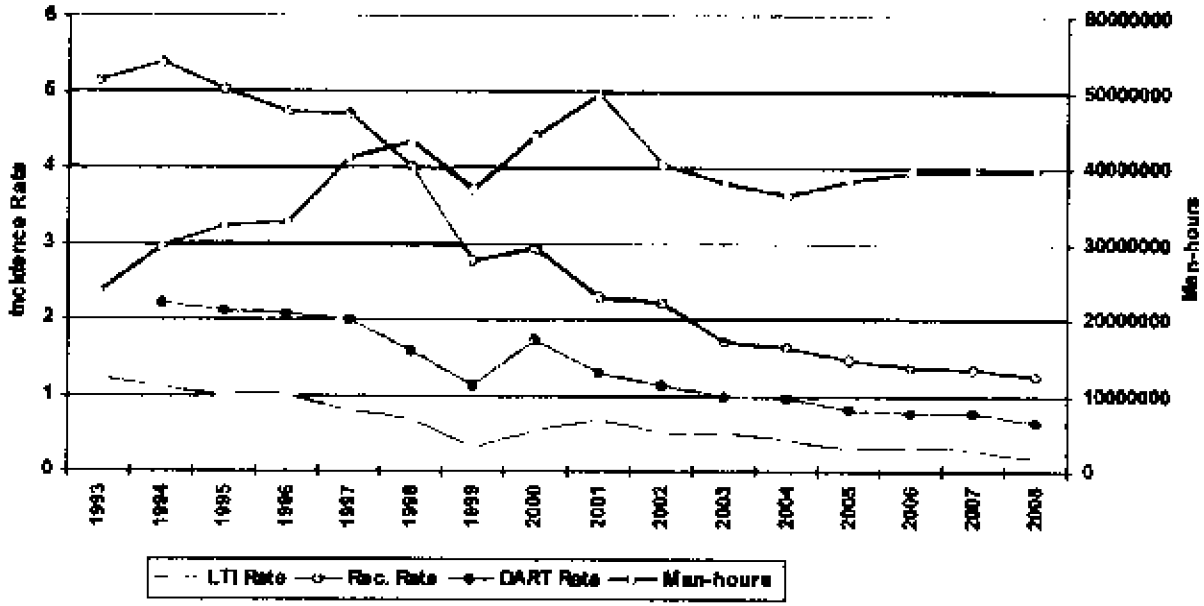
TOTAL INDUSTRY INCIDENCE RATES



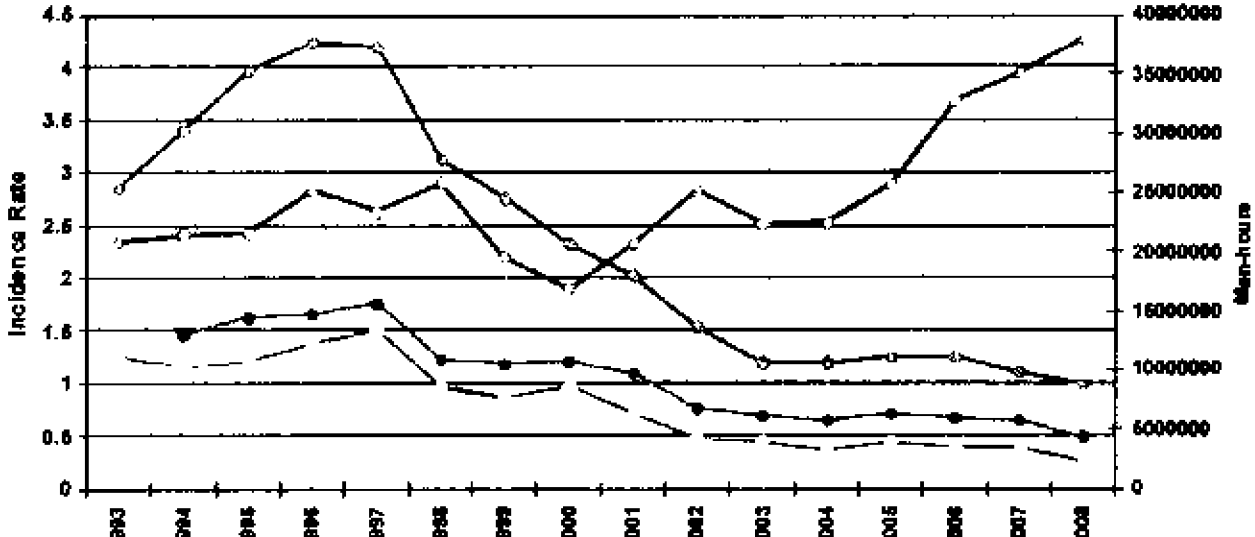
C 2008 US Water Totals		IADC 2008 European Water Totals	
l Man-hours	**39,665,580**	Total Man-hours	**38,049,523**
l Medical Treatment Incidents	**118**	Total Medical Treatment Incidents	**95**
l Restricted Work Incidents	**100**	Total Restricted Work Incidents	**43**
l Lost Time Incidents	**26**	Total Lost Time Incidents	**51**
l Fatalities	**3**	Total Fatalities	**0**
l Recordables	**247**	Total Recordables	**189**
ncidence Rate	**0.15**	LTI Incidence Rate	**0.27**
Frequency Rate	**0.73**	LTI Frequency Rate	**1.34**

st Time Incidence Rate = LTIs + FTLs X 200,000

US Water Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)

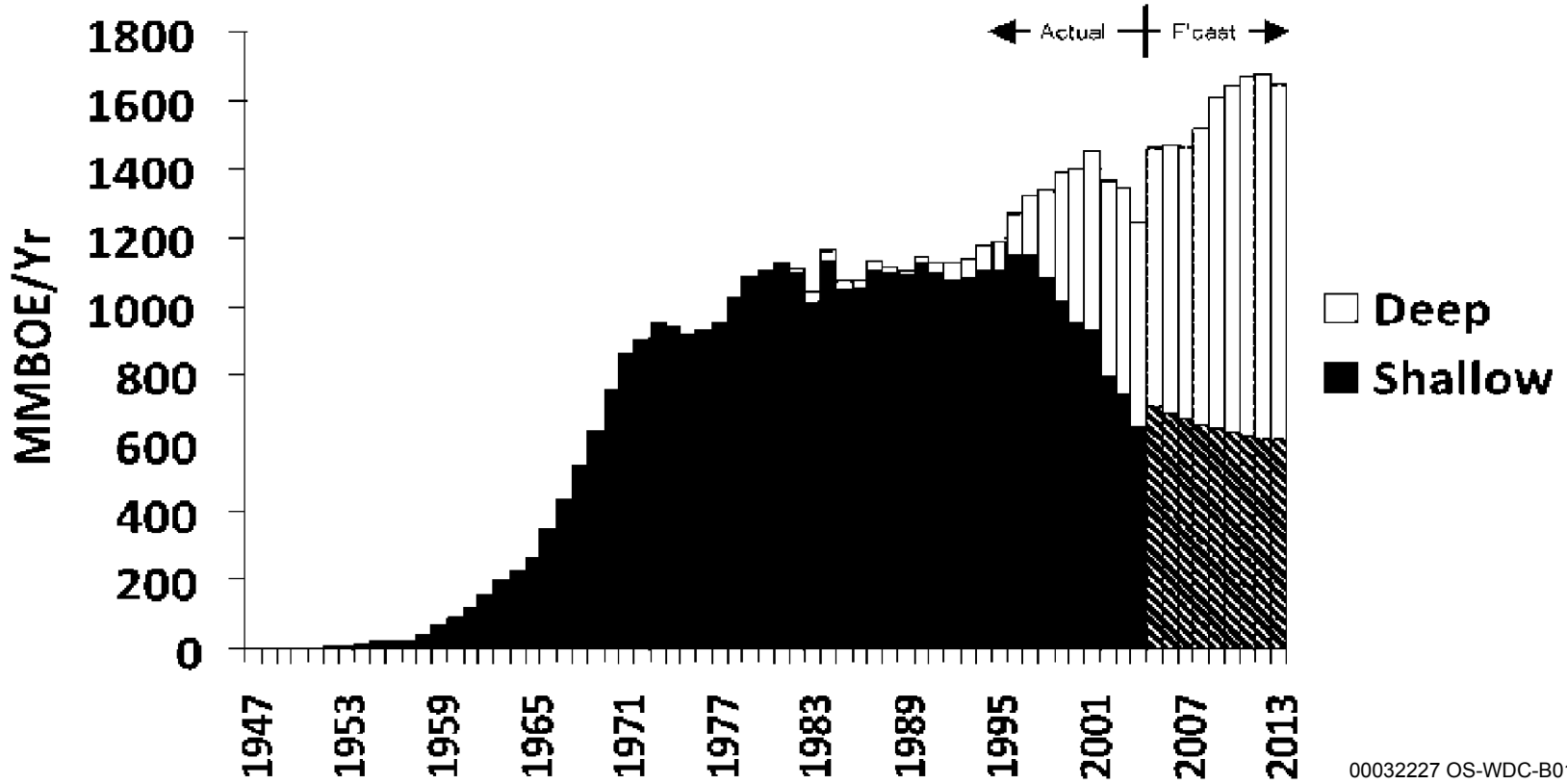


European Water Total Incidence Rates vs Man-hours (Figure 1)



GOM Offshore Production Increasingly from Deepwater

US GOM Offshore



Source: OCS Report MMS 2006-022

Understanding the Risks Summary

Even under existing conditions the record is good and improving at the same time that we are moving more and more into deep water

The Interim Report recommendations which can be implemented immediately (within 30 Days) should reduce the risk further but as the risks are low this is a marginal step

The Interim Report recommendations which take more time (up to 6 Months) should reduce the risks even further but in an even more marginal amount.

Putting the Moratorium in Context

Rationale for a Moratorium

We experts agreed to a list of recommendations which are needed to make drilling safer. Some of these recommendations take time to study and make into regulations to assure compliance. In some cases we agreed with time frames of as long as 6 months and even in one or two cases longer. How can we face the American people and say drilling is safe before all of our own recommendations can be carried out?

By not allowing drilling until all the recommendations we told the DOI are necessary for safety are in place the DOI is honoring our technical analysis.

The “Four Negatives” of the Moratorium

The Moratorium itself increases risk by:

- 1. Stopping operations in the middle
- 2. Exporting best rigs
- 3. Loss of experienced drilling staff
- 4. Increased tanker traffic

To reduce overall risk, the risk reductions which occur as a result of the Moratorium need to outweigh the added risks of the “four negatives”

As currently defined the Moratorium does not accomplish this objective

The Moratorium can be redefined to reduce risk

Effects of Stopping Operations

In any project risks are introduced when an appropriately planned operation is temporarily abandoned and then re-started at some future undetermined date.

- Macondo Well was being temporarily abandoned
- Montara Well was being re=entered after having been temporarily abandoned for four months

The Effect of the Moratorium on Rigs

- Best rigs will leave the Gulf first and come back last. This has a marginal negative impact on the overall safety of the fleet.
- Rigs will leave on long term contracts (2-5 years) and it will take a long time after the moratorium ends to get them back.
- The time to remobilize will take several additional months/years after the Moratorium is lifted and new rules in place.

Effects of Moratorium on Experienced Personnel

- Best people will leave the Gulf
- Workforce significantly impacted, including the thousands of support workers and service providers who support the drilling operations and must adhere to the safety standards – best of them will get work internationally or other industries/jobs.
- Recruitment of new people will stop – the best and brightest do not apply for uncertain jobs
- While some additional training and certification can and will take place during this time – as with the baseball offseason, players need a spring training to get back in shape – "From a safety standpoint we can't afford to have a spring training."
- The industry feels the safest and most effective rig operations and personnel are being punished.

Effects of Moratorium on Tanker Spills

- Source: NRC, “Oil in the Seas”, 2003
- Data for the period 1990-1999 (no one time disaster like Exxon Valdez or BP Macondo)
- Average Best Estimate of Oil Spilled in US waters from offshore platforms and pipelines: 7,000 barrels per year
- Average Best Estimate of Oil Spilled <u>in US waters</u> from tankers: 26,000 barrels per year
  - Does not include spills from US bound tankers in foreign or international waters
  - Does not include spills from marine terminals, refineries and storage tanks
  - Does not include spills at international loading terminals or in producing the oil transported

Measures that should be taken now to improve safety in the GOM

Manage Risk

The level of risk varies significantly between well types based on knowledge of formations being drilled and category of well

The highest risk wells warrant additional time to assure the risk can be managed and drilling these wells are warranted:

- Deepwater exploration wells
  - We have seen it is not just the drilling but the completion of these wells that pose risk
- Unknown pore pressure
- Extremely high pressure and/or high temperature wells

The Key to Increasing Safety

Require adoption of some Interim Report recommendations immediately

Provide a mechanism to allow rigs to remain working in the Gulf of Mexico

- Define a class of wells (other than workover, waterflood, gas injection or water disposal wells) which can be drilled safely. That is, wells where any increased risk by not waiting for all the recommendations to be implemented is lower than the risk of the "Four Negatives"

Maintain Moratorium on "Risky Wells"

Steps to Re-Define the Moratorium to INCREASE Safety

- Allow rigs to complete the work they are currently doing
- Require implementation of the key recommendations of the interim report which can be done within 30 days before ANY new wells can be drilled on the OCS (independent of water depth)
  - 8 Recommendations Already in NTL 05
  - 5 Additional Recommendations which could be added
- Maintain the moratorium on the more risky wells
  - Remaining Recommendations requiring additional study.

Risky Wells

Exploration wells to previously undrilled strata

Deepening existing wells to previously undrilled strata

HP/HT Wells

Less Risky Wells which Can be Drilled

Listed in increasing degree of risk:

- Wells which are abandoned before reaching producing zones (surface casings and top sections only)
- Water Disposal to Non-Producing Reservoirs
- Re-entries and Sidetracks
- Water Disposal to Producing Reservoirs, Waterflood and Gas Injection
- Development Wells to Known Reservoirs
- Workovers
- Drilling to the base of the salt section in deep exploration wells
- Delineation Wells to Non-producing Reservoirs

Wells in red above are already exempted from the moratorium by NTL 04

Conclusions

A moratorium is needed

It needs be defined taking into account ALL elements of risk, including the risks derived from the moratorium itself

Drilling can be made safer quickly by implementing many of the recommendations of the Interim Report

We should not ignore the “Four Negatives” of the moratorium

Allow drilling of “Less Risky Wells” to avoid the Four Negatives

It is justifiable to put a moratorium on “Risky Wells” to allow further thought and study

Appendices

30-Day Recommendations Already in NTL

Recommendations Which Could be Implemented But Are Not Currently in NTL

Recommendations to be Implemented After 30 Days

30-Day Recommendations Already in NTL

Section III Recommendation 1 – Compliance erification for Existing Regulations and April 30, 2010, National Safety Alert

Implement through NTL within 30 days

hin 30 days of the date of this report, the Department, in conjunction with the Department of Homeland urity, will ensure that operators are required to verify compliance with existing regulations and National ety Alert (issued April 30, 2010), which issued the following safety recommendations to operators and ing contractors:

- Examine all well-control equipment (both surface and subsea) currently being used to ensure that it has been properly maintained and is capable of shutting in the well during emergency operations. Ensure that the ROV hot-stabs are function-tested and are capable of actuating the BOP.
- Review all rig drilling/casing/completion practices to ensure that well-control contingencies are not compromised at <u>any</u> point while the BOP is installed on the wellhead.
- Review all emergency shutdown and dynamic positioning procedures that interface with emergency well control operations.
- Inspect lifesaving and firefighting equipment for compliance with federal requirements.
- Ensure that all crew members are familiar with emergency/firefighting equipment, as well as participate in an abandon ship drill. Operators are reminded that the review of emergency equipment and drills should be conducted after each crew change out.
- Exercise emergency power equipment to ensure proper operation.
- Ensure that all personnel involved in well operations are properly trained and capable of performing their tasks under both normal drilling and emergency well control operations.

Section I Recommendation 1 – Order One-Time Only Re-rtification of All BOP Equipment Used in New Floating Drilling Operations

Implement through NTL within 30 days

fore spudding any new well from a floating vessel, the operator will be quired to obtain and deliver to the Department of the Interior a written and ned certification from an independent third-party attesting that, on or er the date of this report, a detailed physical inspection and design review the BOP has been conducted by the equipment manufacturer and owner in cordance with the Original Equipment Manufacturer (OEM) specifications d that (i) the BOP will operate as originally designed; and (ii) any odifications or upgrades to the BOP stack conducted after delivery have not mpromised the design or operation of the BOP.

or to deploying the BOP, the operator must also verify that any odifications or upgrades to the BOP are approved by the Department of the erior and that documentation showing that the BOP has been maintained d inspected according to the requirements in API RP 53 and 30 CFR 0.446(a) is on file with the Department of the Interior or available for pection.

ection I Recommendation 2 – Order BOP Equipment ompatibility Verification for Each Floating Vessel and for Each New Well

Implement through NTL within 30 days

s part of a structured risk management process, the perator will be required to obtain an independent ird-party verification that the BOP will operate ith the drilling rig equipment and that the BOP is ompatible with the specific well location and well asis of design and well execution plan, i.e., in the vent of a well control event the BOP will provide a eal and contain wellbore pressure under all onditions expected in the wellbore.

Section I Recommendation 5– Develop Secondary Control System Requirements and Guidelines

Implement through rulemaking within 120 days

- Minimum ROV intervention capabilities for secondary control of all subsea BOP stacks, including the ability to close all shear and pipe rams, close the choke and kill valves and unlatch the lower marine riser package (LMRP).
- Minimum requirements for an emergency back-up BOP control system that is powered by a separate and independent accumulator bank with sufficient capacity to open and close one annular-type preventer and all ram-type preventers, including the blind shear ram. Such safety systems must include ***at least two*** of the following: autoshear, deadman, emergency disconnect system, and/or an acoustic activation system.
- Guidelines for arming and disarming the secondary BOP control system.
- Guidelines for documentation of BOP maintenance and repair (including any modifications to the BOP stack and control systems).

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

ird-party verification or documentation necessary to show at blind-shear rams will function and are capable of earing the drill pipe that is in use on the rig.

Implement partially through NTL within 30 days, then rulemaking within 120 days

inimum ROV performance testing standards, including rface and subsea function testing of ROV intervention ports d ROV pumps, to ensure compatibility with the BOP stack d that the ROV can close all shear and pipe rams, close the oke and kill valves, and unlatch the lower marine riser ckage.

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

andatory inspection and testing of BOP stack if any omponents are used in an emergency, *e.g.,* use of pipe casing shear rams or circulating out a well kick. This sting should involve a full pressure test of the BOP ter the situation is fully controlled, with the BOP on e wellhead.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through NTL within 30 days

eginning no later than 60 days after the date of this port, all operators of floating drilling equipment will port to the Department of the Interior the following: (i) OP and well control system configuration, (ii) BOP and ell control system test results, including any anomalies testing or operation of critical BOP components, (iii) OP and well control incidents, and (iv) BOP and well ontrol system downtime for the last three years of illing operations.

Section II Recommendation 3 – New Casing And Cement Design Requirements: Two Independent Tested Barriers

Implement through NTL within 30 days

efore spudding any new floating drilling operation, all ell casing and cement designs must be signed by a rofessional Engineer, verifying that there will be at ast two independent tested barriers, including one echanical barrier, across each flow path during well ompletion and abandonment activities and that casing esign is appropriate for the purpose for which it is tended under reasonably expected wellbore onditions.

Section II Recommendation 5 – New Casing Installation Procedures

Implement through NTL within 30 days

he Department will ensure the requirement of the llowing BAST practices:

- Casing hanger latching mechanisms or lock down mechanisms must be engaged at the time the casing is installed in the subsea wellhead.
- For the final casing string, the operator must verify the installation of dual mechanical barriers (*e.g.,* dual floats or one float and a mechanical plug) in addition to cement, to prevent flow in the event of a failure in the cement.

Recommendations Which Could be Implemented But Are Not Currently in NTL

Section I Recommendation 7 – Develop New Testing Guidelines

Implement through NTL within 30 days

linimum surface and subsea function and ressure testing requirements to simulate (i) nintended disconnect of the lower marine riser ackage (LMRP), and (ii) loss of surface control e.g., electric and hydraulic power) of the subsea OP stack.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

nplement in accordance with internal Departmental Guidance issued within 30 days

- The Department will evaluate and revise the manner in which it conducts its drilling inspections.
- Revised drilling inspections should include the witnessing of actual tests of BOP equipment, including the new requirements and guidance that address the surface and subsea testing of ROV and BOP stack capabilities.
- The Department will also develop methods to increase transparency and public availability of the results of inspections as well as routine reporting.
- The Department will work with Congress to obtain the necessary resources to implement these recommendations.

ection II Recommendation 2 – New Fluid Displacement Procedures

Implement through NTL within 30 days

or to displacement of kill-weight drilling fluid from the wellbore, the operator must ependently verify that:

- The BOPs are closed during displacement to underbalanced fluid columns to prevent gas entry into the riser should a seal failure occur during displacement.
- Two independent barriers, including one mechanical barrier, are in place for each flow path (i.e., casing and annulus).
- If the shoe track (the cement plug and check valves that remain inside the bottom of casing after cementing) is to be used as one of these barriers, it is negatively tested prior to the setting of the subsequent casing barrier. A negative test should also be performed prior to setting the surface plug.
- Negative tests are made to a differential pressure equal to or greater than the anticipated pressure after displacement. Each casing barrier is positively tested to a pressure that exceeds the highest estimated integrity of the casing shoes below the barrier.
- Displacement of the riser and casing to fluid columns that are underbalanced to the formation pressure in the wellbore is conducted in separate operations. In both cases, BOPs should be closed on the drill string and circulation established through the choke line to isolate the riser, which is not a rated barrier. During displacement, volumes in and out must be accurately monitored.
- Drill string components positioned in the shear rams during displacement must be capable

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement through a rulemaking within 120 days

he Department will institute a rulemaking to onsider the adoption of API RP 65 Part 2:

- Isolating potential flow zones during well construction (addressing previously identified gaps in primary cementing practices).

Section III Recommendation 3 –Adopt Final Safety and Environmental Management Systems Rule

Implement through publication of final rule within 30 days

OCS Safety Oversight Board will ensure the promulgation of a final SEMS Rule with full implementation of lements, along with provisions for public availability of information developed and collected under the rule ncrease transparency and accountability.

IS is a structured and comprehensive method for applying operational, safety and environmental protection ciples to offshore activities by focusing on personnel and ensuring accountability for operations throughout organization in the following specific areas:

1. Safety & Environmental Information
2. Hazards Analysis
3. Management of Change
4. Operating Procedures
5. Safe Work Practices
6. Training
7. Mechanical Integrity
8. Pre-Startup Review
9. Emergency Response & Control
10. Investigation of Accidents
11. Auditing the Program
12. Records & Documentation

Recommendations to be Implemented After 30 Days

Section I Recommendation 3 – Study Formal Equipment Certification Requirements

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical orkgroup to review current, and investigate new, certification requirements BOP equipment and other components of the BOP stack such as control nels, communication pods, accumulator systems, and choke and kill lines. addition, this workgroup will recommend ways to make BOP certifications blicly available in order to increase transparency and accountability.

e establishment of a technical workgroup to examine the need for rtification of BOP systems and components is important; even when a BOP ck has all the above mentioned systems and components, it is of little use t does not function properly to prevent a well blowout.

Section I Recommendation 4 – New Blind Shear Ram Redundancy Requirement

Implement through rulemaking within 120 days

Within one year from the date of this report, all oating drilling operations will be required to ave two sets of blind shear rams spaced at ast 4 feet apart (to prevent system failure if rill pipe joint or drill tool is across one set of ams during an emergency).

Section I Recommendation 6 – Develop New ROV Operating Capabilities

Implement recommendations through the Department workgroup within one year

e Department will immediately establish an independent technical rkgroup to develop further improvements to ROV operating capabilities luding the following:

- Standardized hydraulic and electrical interfaces for all subsea BOP stacks so that they are accessible by any available ROV.
- Visual mechanical indicator or redundant telemetry channel to confirm ram closure (*e.g.,* a position indicator).
- Methods of subsea testing that would avoid detrimental effects of seawater in BOP system (*e.g.,* ROV with external hydraulic supply).
- An ROV interface with a valve below the lowest ram on the BOP stack to allow well-killing operations.

Section I Recommendation 7 – Develop New Testing Guidelines

No later than 180 days after the date of this report

- Department will develop clear requirements and guidelines
t address the surface and subsea testing of ROV and BOP stack
abilities.

Implement through rulemaking within 120 days

- Protocols for function testing, autoshear, deadman, emergency
disconnect systems and acoustic activation systems.

Section I Recommendation 8 – Develop New Inspection Procedures and Reporting Requirements

Implement through rulemaking within 120 days

here feasible, the electronic log from the BOP control system ould be transmitted online to a secure location onshore and ade available for inspection by the Department of the Interior.

Section II Recommendation 1 – Establish Deepwater Well-Control Procedure Guidelines

Implement through rulemaking within 120 days

ithin 120 days of the date of this report, the Department will sure that requirements and guidelines for deepwater well-ntrol procedures are established.

Section II Recommendation 4 – Study Formal Personnel Training Requirements for Casing and Cementing Operations

Implement recommendations through the Department workgroup within one year

The Department will immediately establish an independent technical workgroup, with appropriate academic, agency, industry and other stakeholder participation, to study whether to establish new training and certification requirements for rig personnel specifically related to casing and cementing operations.

Section II Recommendation 6 – Develop Additional Requirements or Guidelines for Casing Installation

Implement recommendations through a the Department workgroup within one year

he Department will provide for the immediate stablishment of a workgroup, to establish specific equirements or guidelines for the following rocedures and practices:

- Positive and negative test procedures and use of test results for evaluation of casing integrity.
- Use of float valves and other mechanical plugs in the final casing string or liner.

Section II Recommendation 7 – Enforce Tighter Primary Cementing Practices

Implement recommendations through a Department workgroup within one year

- The Department will study whether to determine specific cementing requirements.

Section II Recommendation 8 – Develop Additional Requirements or Guidelines for Evaluation of Cement Integrity

Implement recommendations through Department workgroup within one year

- The Department will immediately establish an independent technical workgroup to evaluate whether and under what circumstances the use of cement bond logs is feasible and practical and will increase safety.

Section II Recommendation 9 –Increase Federal Government Wild-Well Intervention Capabilities

own out, or “wild” wells, involve the uncontrolled release of ude oil or natural gas from an oil well where pressure ntrol systems have failed.

e Federal government should assess its current capability to eal with such emergency situations, particularly in deep ater, and develop a plan to increase its capabilities for direct ld-well intervention, should such be required, in future mergency situations.

ements to be considered include an inventory of existing ethods to stop a blowout and handle escaping wellbore uids, including but not limited to coffer dams, highly-capable OVs, portable hydraulic line hook-ups, and pressure-reading ols.

Section II Recommendation 10 – Study Innovative Wild-Well Intervention, Response Techniques and Response Planning

ddition, the Department will immediately establish a DOI workgroup to study methods to
p a blowout and handle escaping wellbore fluids. The technical workgroup will take a fresh
k at how to deal with a deepwater blowout. The conventional last resort method to control a
wout is to drill a relief well. In deep water this can take several months. But the reality of
ng several months to stop a high flowing well at deep water depths was difficult to imagine
il the BP oil spill. The offshore oil and gas industry, learning from the BP Oil Spill response
erience, should work toward being able to stop a spill resulting from a deepwater blowout.
erators should work to be in a position to submit, with their Exploration or Development
ns, an emergency response plan that addresses resources (including common resources) that
uld be deployed in the event of a serious emergency, even if assessed as low probability.

e technical workgroup should also address operators' ability, on a regional or industry-wide
is, to develop and procure a response package for deep water incidents, to include diagnostic
l measurement equipment, pre-fabricated systems for deep water oil capture, logistical and
mmunications support, and plans and concepts of operations that can quickly be deployed in
event of an unanticipated blowout. Assess and certify potential options, e.g., deep water
persant injection.

ection III Recommendation 2 – The Department Will Adopt Safety Case Requirements for Floating Drilling Operations on the OCS

Implement through rulemaking within 120 days

- Within 120 days of the date of this report, the Department will assure the adoption of appropriate safety case requirements based on IADC Health, Safety and Environmental Case Guidelines for Mobile Offshore Drilling Units (2009), which will include well construction safety assessment prior to approval of APD.
- This “safety case” should establish risk assessment and mitigation processes to manage a drilling contractor’s controls related to the health, safety and environmental aspects of their operations.
- In addition to the safety case, a separate bridging document should be required to connect the safety case to existing well design and construction documents.
- Such a proposed Well Construction Interfacing Document will include all of the elements in a conventional bridging document plus alignment of the drilling contractor’s management of change (MOC) and risk assessment to the lease operator’s MOC and well execution risk assessments.

Section III Recommendation 4 – Study Additional Safety Training and Certification Requirements

mplement recommendations through a Department workgroup within one year

- The Department will immediately establish a workgroup to investigate safety training requirements for floating drilling rig personnel and possible requirements for independent or more frequent certification and testing of personnel and safety systems.
- Establish an oil production safety program or institute (similar to NRC reactor safety program).
- Consider establishing a formalized analytical methodology to assess performance of safety systems in the event of multiple component failure or excursions outside normal environmental ranges.
- Strengthen technical support to the Department of the Interior and other regulatory authorities, including the resources necessary to obtain independent technical review of regulations and standards.
- Consider chartering a longer-term technical review of BOP reliability.
- Consider importing best practices from other agencies with similar responsibility for safety regulation of technically complex systems, e.g. FAA and NRC.

Nguyen, Ngoc B

From: Ford Brett [FBrett@PetroSkills.com]
Sent: Wednesday, June 23, 2010 8:05 PM
To: Ken Arnold
Cc: Benton Baugh; Bob Bea; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams; Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: Re: Power Point Presented to Secretary Salazar on 6/21/2010

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Ford Brett

(m) +1 918 408 9516

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Cc: 'Benton Baugh'; 'Bob Bea'; 'Hans Juvkam-Wold'; 'Ken Arnold'; 'Martin Chenevert'; 'Per Holand'; 'Skip Ward'; Black, Steve; Kemkar, Neal; Hanley, Kallie
Subject: RE: Power Point Presented to Secretary Salazar on 6/21/2010

This article and statement about less risky wells in the Houston paper is noteworthy:

WASHINGTON - The Obama administration is revising its blanket moratorium on deep-water drilling and could replace it with a more targeted ban that lets some projects go forward, Interior Secretary Ken Salazar told Congress on Wednesday.

Salazar's announcement came one day after a federal court struck down the initial moratorium as too broad. It was delivered even as government officials took more steps to revamp the federal regulatory agency that polices offshore energy production.

Both the deep-water drilling ban and the overhaul of the agency, the Minerals Management Service, were prompted by the April 20 blowout of a BP well in the Gulf of Mexico.

The administration is appealing a federal judge's ruling Tuesday that blocks the May 27 ban on oil and gas drilling in more than 500 feet of water.
Salazar said he is also responding to the ruling by rewriting the moratorium with more nuance and justification.

Wednesday night, the administration asked a court to delay the Tuesday ruling as it appeals. The Justice Department said a delay would serve the public by eliminating risk of another drilling accident while new safety rules are considered.

Salazar's determination that a threat exists has firm support from a variety of sources, the Justice Department argued in seeking the delay. And no relevant provisions in the Administrative Procedure Act, the Outer Continental Shelf Lands Act or related regulations require the Interior Department to prepare a formal decision document or findings of fact prior to issuing a drilling suspension, the government's court papers said.

Earlier before Congress, Salazar suggested that the new ban could treat drilling projects differently based on risk - distinguishing between projects in well-known reservoirs and those trying to tap new fields where pressure readings and other data are unavailable. The distinction could mean a continued blockade of exploratory drilling even as the government outlines plans for letting companies resume drilling appraisal wells and development wells where pockets of oil already have been discovered. The doomed BP well was in the exploratory stage.

Sen. Lisa Murkowski, R-Alaska, said 28 of the 33 Gulf rigs idled by the deep-water ban were working on the less risky post-discovery projects.

"There is a difference between an exploration well you're drilling in formulations where you don't know anything ... versus drilling into reservoirs where you already have the geophysical information," Salazar said.

Sen. John Cornyn, R-Texas, who has been critical of the broad moratorium on deep-water drilling, said Salazar's suggestion of a more narrowly drafted ban was promising , adding it also is important to try to find ways to mitigate job losses.

While the Interior Department reformulates its deep-water drilling ban, the agency in charge of policing the industry is getting a major overhaul.
Michael Bromwich, the new leader of the Interior Department's just-launched Bureau of Ocean Energy Management, Regulation and Enforcement, one of the successor agencies replacing the Minerals Management Service, told a Senate panel he is creating a "SWAT team

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Subject: RE: Power Point Presented to Secretary Salazar on 6/21/2010

This article and statement about less risky wells in the Houston paper is noteworthy:

WASHINGTON - The Obama administration is revising its blanket moratorium on deep-water drilling and could replace it with a more targeted ban that lets some projects go forward, Interior Secretary Ken Salazar told Congress on Wednesday.

Salazar's announcement came one day after a federal court struck down the initial moratorium as too broad. It was delivered even as government officials took more steps to revamp the federal regulatory agency that polices offshore energy production.

Both the deep-water drilling ban and the overhaul of the agency, the Minerals Management Service, were prompted by the April 20 blowout of a BP well in the Gulf of Mexico.

The administration is appealing a federal judge's ruling Tuesday that blocks the May 27 ban on oil and gas drilling in more than 500 feet of water.
Salazar said he is also responding to the ruling by rewriting the moratorium with more nuance and justification.

Wednesday night, the administration asked a court to delay the Tuesday ruling as it appeals. The Justice Department said a delay would serve the public by eliminating risk of another drilling accident while new safety rules are considered.

Salazar's determination that a threat exists has firm support from a variety of sources, the Justice Department argued in seeking the delay. And no relevant provisions in the Administrative Procedure Act, the Outer Continental Shelf Lands Act or related regulations require the Interior Department to prepare a formal decision document or findings of fact prior to issuing a drilling suspension, the government's court papers said.

Earlier before Congress, Salazar suggested that the new ban could treat drilling projects differently based on risk - distinguishing between projects in well-known reservoirs and those trying to tap new fields where pressure readings and other data are unavailable. The distinction could mean a continued blockade of exploratory drilling even as the government outlines plans for letting companies resume drilling appraisal wells and development wells where pockets of oil already have been discovered. The doomed BP well was in the exploratory stage.

Sen. Lisa Murkowski, R-Alaska, said 28 of the 33 Gulf rigs idled by the deep-water ban were working on the less risky post-discovery projects.

"There is a difference between an exploration well you're drilling in formulations where you don't know anything ... versus drilling into reservoirs where you already have the geophysical information," Salazar said.

Sen. John Cornyn, R-Texas, who has been critical of the broad moratorium on deep-water drilling, said Salazar's suggestion of a more narrowly drafted ban was promising , adding it also is important to try to find ways to mitigate job losses.

While the Interior Department reformulates its deep-water drilling ban, the agency in charge of policing the industry is getting a major overhaul.
Michael Bromwich, the new leader of the Interior Department's just-launched Bureau of Ocean Energy Management, Regulation and Enforcement, one of the successor agencies replacing the Minerals Management Service, told a Senate panel he is creating a "SWAT team

-----Original Message-----
From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Wednesday, June 23, 2010 7:05 PM
To: Ken Arnold
Cc: Benton Baugh; Bob Bea; Hans Juvkam-Wold; Ken Arnold; Martin Chenevert; Per Holand; Skip Ward; Tom Williams; Steve Black; Neal Kemkar; Kallie Hanley
Subject: Re: Power Point Presented to Secretary Salazar on 6/21/2010

Ken - thanks.

All - my cell works in Vietnam (see below) at lowish (bearable) cost. Ken and I will be at the same Society of Petroleum Engineers meeting. If you need to contact him urgently, I'll be happy to be his recording secretary.

Ford Brett

(m) +1 918 408 9516

On Jun 23, 2010, at 6:48 PM, "Ken Arnold" <karnold@karnoldconsulting.com> wrote:

> You are receiving this because you expressed an interest in having a
> copy of the subject report. DOI has been asked if they have a problem
> with us distributing this to whomever asks and have not expressed an
> objection.
> Those present at the meeting or by phone were the original signers of
> the Group of 8, plus Per Holland and Arnold Stancell. Bob Bea and
> Skip Ward were unable to participate. From DOI attendees beside the
> Secretary included David Hayes, Tom Strickland, The new Director of
> the MMS Mike B (please excuse my inability to spell his last name as I
> am traveling and don't really have time to look it up).
>
>
>
> The people contributing to this power point besides myself are:
>
>
>
> Benton Baugh (bbaugh@radoil.com)
>
> Bob Bea (bea@ce.berkeley.edu)
>
> Ford Brett (fbrett@petroskills.com)
>
> Hans Juvkam-Wold (juvkam-wold@pe.tamu.edu)
>
> Martin Chenevert (mechenevert@austin.utexas.edu)
>
> Per Holand (Per.holand@exprosoft.com)
>

> Skip Ward (egward@tamu.edu)
>
> Tom Williams (Tom.Williams@Nautilus-Int.com)
>
>
>
> The list of those getting this is as follows, but I have copied only
> two at a time so it is not blocked by a spam filter:
>
>
>
> Robert Arnold (rarnold@kprc.com)
>
> Ted Oberg (ted.oberg@abc.com)
>
> Power, Stephen [Stephen.Power@wsj.com]
>
> Naomi Lopez Bauman [(b) (6)]
>
> V. Peyton Bruns [(b) (6)]
>
> KENDALL KULPER, BLOOMBERG/ NEWSROOM: [kkulper1@bloomberg.net]
>
> Guarino, Mark [GuarinoM@csmonitor.com]
>
> Rosenblum, Carl [crosenblum@joneswalker.com]
>
>
>
> The Secretary has expressed an interest in meeting with us in two
> weeks with a wider audience.
>
>
>
> Please be advised I am in SE Asia and will return to Houston Tuesday
> the 30th in the afternoon. Do not call my cell phone unless it is
> important as it is an expensive call for me. Also I have been unable
> to pick up my phone messages since leaving the US. I may be able to
> pick them up when I leave Viet Nom for Singapore Sunday but am not
> sure.
>
>
>
> Kenneth E. (Ken) Arnold
>
> K Arnold Consulting, Inc.
>
> 3031 Shadowdale
>
> Houston, TX 77043
>
> Cell: 832-212-0160
>
> Home: 713-939-1034
>
> www.karnoldconsulting.com
>

>
>
>
>
> <Presentation to Secretary of Interior - Rev 4.pptx>

THE SECRETARY OF THE INTERIOR
WASHINGTON

APR 20 2010

Memorandum

To: Deputy Secretary
Solicitor
Assistant Secretaries
Deputy Assistant Secretaries
Heads of Bureaus and Offices

From: Secretary

Subject: Cooperation with the Office of Inspector General

As public servants, we must cooperate with the Office of Inspector General as that office fulfills its responsibilities as provided in the Inspector General Act. The Inspector General is a vital part of the senior leadership team here at the Department, pursuing economy, efficiency, and effectiveness in Department programs and operations, as well as preventing and detecting fraud and abuse.

The Inspector General Act (Act) provides the Inspector General access to information within the Department. The Act states, "the Inspector General is authorized to have access to all records, reports, audits, reviews, documents, papers, recommendations, or other material available to the Department relating to its programs and operations (Section 6(a)(1))." Information that the Inspector General has access to may include information that may be privileged, confidential, or otherwise exempt from disclosure under law such as the Freedom of Information Act or the Privacy Act. In providing privileged or confidential information to the Inspector General's office, Department employees should identify and clearly mark such information. The Office of Inspector General will treat such information in accordance with applicable statutes and regulations. Providing such information to the Office of Inspector General will not constitute a waiver of any privileges that may attach to the information. In addition to the Act, the Department Manual 110 DM 4 provides for the responsibilities for the Office of Inspector General and its relationship with Department bureaus and offices.

If you have any questions about your obligations to cooperate with requests by authorized representatives of the Office of Inspector General, you may contact your supervisors or the Office of the Solicitor. Please advise your senior managers of the contents of this memo.

Sukkar, Richard

From: Black, Steve [steve_black@ios.doi.gov]
Sent: Tuesday, May 18, 2010 12:11 PM
To: Ishee, Mary Katherine
Cc: Rogers, Constance
Subject: Ken Arnold

MK,

Connie confirmed we're okay having Doug call Ken. I have reminded Ken of his non-disclosure obligations.

Thanks.

From: Hayes, David
To: Diehl, Barbara;
cc: Davis, Laura;
Subject: FW: NAE letters
Date: Wednesday, June 02, 2010 9:10:39 PM
Attachments: 100602 ltr to NAE.Juvkam-Wold FINAL.doc
100602 ltr to NAE.BRETT FINAL.doc
100602 ltr to NAE BAUGH FINAL.doc
100602 ltr to NAE.CHENEVERT FINAL.doc
100602 ltr to NAE.HOLLAND FINAL.doc
100602 ltr to NAE.BEA FINAL.doc
100602 ltr to NAE.STANCELL FINAL.doc

Barb:

Need to get out in the am, via ExSec.

Pls list Steve Black, Counselor to the Secretary as a cc. (Laura: And Tom Strickland too?)

Thanks.

David J. Hayes
Deputy Secretary
U.S. Department of the Interior
Washington, D.C.
202.208.6291

From: Black, Steve
Sent: Wednesday, June 02, 2010 7:48 PM
To: Diehl, Barbara; Hayes, David
Cc: Davis, Laura; Screnar, Brian; Johnston, Doris; Hanley, Kallie
Subject: NAE letters

Barb, the attached letters are ready to go over David's signature, subject to his/your final review. Please don't hesitate to call me or Doris if you have any questions.

Many thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

June 2, 2010

Dr. Hans C. Juvkam-Wold, P.E.
Professor Emeritus
Dwight Look College of Engineering
Harold Vance Department of Petroleum Engineering
Texas A&M University
3116 TAMU - 507 Richardson Building
College Station, TX 77843-3116

Dear Dr. Juvkam-Wold:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

As stated in the report, each of the 22 numbered recommendations contained in the report was developed after consulting with a wide range of experts in State and Federal Governments, academic institutions, and industry and advocacy organizations. Given the technical nature of the report and its recommendations, the Department asked Dr. Peter Blair of the National Academy of Engineering to identify a group of recognized academic and industry experts in the relevant fields to provide certain information to the Department related to offshore drilling safety and blowout protection equipment and to review and comment on the proposed safety recommendations to be included in the report. We are indebted to each of you for agreeing to serve in that role and for your stated concurrence with the detailed recommendations contained in the report.

Based on the recommendations contained in the report and the devastating consequences of the ongoing oil spill, the Administration independently concluded that a 6-month moratorium on new deepwater offshore drilling was necessary to implement the safety recommendations contained in the report and to learn from the information and recommendations developed by the Presidential Commission and other ongoing investigations into the Deepwater Horizon incident and resulting BP oil spill.

By listing you as members of the NAE panel that peer-reviewed the 22 safety recommendations contained in the report, we did not mean to imply that you also agreed with the decision to impose a moratorium on all new deepwater drilling. While that recommendation and decision were based on the safety recommendations contained in the report, in particular the need for new blowout preventer and other safety equipment on subsea BOP stacks used on floating drilling rigs, and the need for better wild-well intervention techniques in the event of future emergencies

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Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

[TBD]

June 2, 2010

Mr. J. Ford Brett
Managing Director
Petroskills, Inc.
3128 E. 66th Place
Tulsa, OK 74135

Dear Mr. Brett:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

June 2, 2010

Dr. Benton F. Baugh (NAE)
President, Radoil Inc.
12251 FM 529
Houston, TX 77041

Dear Dr. Baugh:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

June 2, 2010

Dr. Martin E. Chenevert
Senior Lecturer, Department of Petroleum and Geosystems Engineering
Manager, Drilling Research Program
The University of Texas at Austin
Department of Petroleum and Geosystems Engineering, CPE 2.502
Austin, Texas, 78712

Dear Dr. Chenevert:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

June 2, 2010

Dr. Per Holland
SINTEF Industrial Management
Safety and Reliability
N-7465 Trondheim,
NORWAY

Dear Dr. Holland:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

June 2, 2010

Dr. Robert G. Bea (NAE)
Professor of Civil and Environmental Engineering
Department of Civil Engineering
University of California, Berkeley
212 McLaughlin Hall
Berkeley, CA 94720-1712

Dear Dr. Bea:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

June 2, 2010

Dr. Arnold F. Stancell (NAE)
(Retired Vice President, Mobil Oil and
Turner Professor of Chemical Engineering, Emeritus
Georgia Institute of Technology)
15 Woodside Drive
Greenwich, CT 06830

Dear Dr. Stancell:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

From:	Black, Steve
To:	Diehl, Barbara; Hayes, David;
cc:	Davis, Laura; Screnar, Brian; Johnston, Doris; Hanley, Kallie;
Subject:	NAE letters
Date:	Wednesday, June 02, 2010 7:49:00 PM
Attachments:	100602 ltr to NAE.Juvkam-Wold_FINAL.doc 100602 ltr to NAE.BRETT_FINAL.doc 100602 ltr to NAE BAUGH_FINAL.doc 100602 ltr to NAE.CHENEVERT_FINAL.doc 100602 ltr to NAE.HOLLAND_FINAL.doc 100602 ltr to NAE.BEA_FINAL.doc 100602 ltr to NAE.STANCELL_FINAL.doc

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Many thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

June 2, 2010

Dr. Hans C. Juvkam-Wold, P.E.
Professor Emeritus
Dwight Look College of Engineering
Harold Vance Department of Petroleum Engineering
Texas A&M University
3116 TAMU - 507 Richardson Building
College Station, TX 77843-3116

Dear Dr. Juvkam-Wold:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

June 2, 2010

Mr. J. Ford Brett
Managing Director
Petroskills, Inc.
3128 E. 66th Place
Tulsa, OK 74135

Dear Mr. Brett:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

As stated in the report, each of the 22 numbered recommendations contained in the report was developed after consulting with a wide range of experts in State and Federal Governments, academic institutions, and industry and advocacy organizations. Given the technical nature of the report and its recommendations, the Department asked Dr. Peter Blair of the National Academy of Engineering to identify a group of recognized academic and industry experts in the relevant fields to provide certain information to the Department related to offshore drilling safety and blowout protection equipment and to review and comment on the proposed safety recommendations to be included in the report. We are indebted to each of you for agreeing to serve in that role and for your stated concurrence with the detailed recommendations contained in the report.

Based on the recommendations contained in the report and the devastating consequences of the ongoing oil spill, the Administration independently concluded that a 6-month moratorium on new deepwater offshore drilling was necessary to implement the safety recommendations contained in the report and to learn from the information and recommendations developed by the Presidential Commission and other ongoing investigations into the Deepwater Horizon incident and resulting BP oil spill.

By listing you as members of the NAE panel that peer-reviewed the 22 safety recommendations contained in the report, we did not mean to imply that you also agreed with the decision to impose a moratorium on all new deepwater drilling. While that recommendation and decision were based on the safety recommendations contained in the report, in particular the need for new blowout preventer and other safety equipment on subsea BOP stacks used on floating drilling rigs, and the need for better wild-well intervention techniques in the event of future emergencies like the BP oil spill, particularly in deepwater, we acknowledge that you were not asked to review or comment on the scope of the proposed moratorium. We regret any misunderstanding

or confusion related to the inclusion of the recommendation to impose a 6-month moratorium on all new deepwater wells in the executive summary of the final report.

Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

[TBD]

June 2, 2010

Dr. Benton F. Baugh (NAE)
President, Radoil Inc.
12251 FM 529
Houston, TX 77041

Dear Dr. Baugh:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

June 2, 2010

Dr. Martin E. Chenevert
Senior Lecturer, Department of Petroleum and Geosystems Engineering
Manager, Drilling Research Program
The University of Texas at Austin
Department of Petroleum and Geosystems Engineering, CPE 2.502
Austin, Texas, 78712

Dear Dr. Chenevert:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Sincerely,

[TBD]

June 2, 2010

Dr. Per Holland
SINTEF Industrial Management
Safety and Reliability
N-7465 Trondheim,
NORWAY

Dear Dr. Holland:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

[TBD]

June 2, 2010

Dr. Robert G. Bea (NAE)
Professor of Civil and Environmental Engineering
Department of Civil Engineering
University of California, Berkeley
212 McLaughlin Hall
Berkeley, CA 94720-1712

Dear Dr. Bea:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

[TBD]

June 2, 2010

Dr. Arnold F. Stancell (NAE)
(Retired Vice President, Mobil Oil and
Turner Professor of Chemical Engineering, Emeritus
Georgia Institute of Technology)
15 Woodside Drive
Greenwich, CT 06830

Dear Dr. Stancell:

Thank you for your valuable assistance in connection with the preparation of the Secretary's May 27, 2010, report to the President, entitled "Increased Safety Measures for Energy Development on the Outer Continental Shelf." The Department is working diligently to implement each of the recommendations as soon as practicable to improve the safety of offshore oil and gas development off our Nation's coasts.

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review or comment on the scope of the proposed moratorium. We regret any misunderstanding or confusion related to the inclusion of the recommendation to impose a 6-month moratorium on all new deepwater wells in the executive summary of the final report.

Again, the Department is grateful for your service to the United States in this extraordinary time of crisis. Your willingness to associate yourselves with the specific safety recommendations contained in the report is extremely important and will help to ensure that offshore drilling can be done safely and in an environmentally responsible manner.

Sincerely,

[TBD]

Strickland, Thomas

From: Black, Steve
Sent: Tuesday, June 01, 2010 10:58 AM
To: Strickland, Thomas; Hayes, David; Lane, Kenneth
Cc: Stone, Renee
Subject: Fw: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

We should discuss. Thanks.
Steve

From: Ford Brett <FBrett@PetroSkills.com>
To: Black, Steve; karnold@karnoldconsulting.com <karnold@karnoldconsulting.com>
Cc: Tom.Williams@Nautilus-Int.com <Tom.Williams@Nautilus-Int.com>; egward@tamu.edu <egward@tamu.edu>; juvkam-wold@pe.tamu.edu <juvkam-wold@pe.tamu.edu>
Sent: Sun May 30 22:21:04 2010
Subject: RE: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Steve –

Thanks for the update – you don't need to be reading an email from me on a holiday. Hopefully, you won't see this until Tuesday. I'd like for you to know where I stand on this. This email describes my concerns. I believe they are likely similar to those of others on the panel, but I'm speaking only for myself.

The Secretary and President are entitled to take any legal action they feel appropriate for any reasons (technical, political, or even 'just because'). I understand that. If I wanted to 'cause a stink' I already would have. I think my (our?) concerns are valid and deserve some kind of formal response from the DOI.

I have three concerns (in roughly descending order of importance from my perspective) with the way this was handled.

1) We can't be having political decisions (however valid) be 'given' cover by technical experts who don't agree with (and worse haven't even reviewed) the recommendations. Processes that do that are doomed to fail. I participated in the effort in good faith. I made what I thought were helpful comments, and I believe the DOI did a very good job on the report - especially in 30 days. I think the final detailed recommendations go a bit overboard, but I can see why there's necessary. I'll even support them all because that's what the process produced. But the most important recommendation wasn't something we even looked at. That is the Secretary's prerogative – but not with our names on it. The entire process will lose credibility and (I'm afraid) you'll lose the contributions of people like me who have valuable experience to contribute. This can all be a miss-communication, a report issued in haste etc. I understand things like that. OK – but we need to 'fix' the perception that we reviewed and agreed with the six month ban. (A press release clarifying would be OK). But if panels like this are to be 'political cover' instead of 'searches for the truth' (or at least expert's consensus) then you'll have serious problems with trying to move forward with the many things still left to do. I don't want to see that. I hope you and the Secretary can see that this isn't a disagreement on what to do, but on the integrity of the process.

Brett editorial note: I know a bit about how BP works, and very interestingly to me, this kind failure of integrity in the process - in my opinion - is similar to what was going on in BP (ie. Reporting up the organization that 'all the experts agree', when, in fact, the people with the detailed knowledge did not). Don't do that – you'll have a disaster.

2) Personal integrity. Am I supposed to A) provide my professional advice to the DOI as best as I can, or B) be 'cover' for whatever decision the DOI would like to make. I am very proud, and pleased to do A) and hope I positively contribute to a solution. I will not do B).

3) I disagree with the recommendation to halt all floating drilling. Let me tell you why I think a 6 month ban is the wrong thing for our nation to do. (Editorial note: haven't been selected by the people to make this decision, but I still have

"judgment about risk" based on the physics and practical operational realities in the field). If we are to have 'reviewed' this recommendation – as stated in the report - at least my concerns should have been heard.

a) Deepwater **exploration** is where the risks are (development is way safer). Once the pore pressure and productive formations are known, operations become much, much more reliable. A blanket ban is not warranted and will drive responsible operators away from the gulf (Brett editorial comment: there is a reason why Transocean is headquartered in Switzerland and not Houston – it's has to do with legal concerns).
b) The best rigs will get work and go else where. They won't come back. We'll end up with 'junkier' rigs (they'll still meet 'regs' – but they'll be less capable). This will have the unintended consequence of increasing our future risks.
c) There were problems with equipment, but the root problem wasn't with the equipment – it was with a piece of paper in Houston - faulty design. By the way, we'll know more later, but it is possible the BOP worked as designed, and that, because of the faulty casing design, it simply washed out as it was trying to close. They take 45 seconds to close, and can wash out if sealing on pressure and high flow. That's because of the faulty casing design. The measures in our report – if implemented – will address both equipment and design risks.
d) Operators need to fully implement those recommendations per the report – not arbitrarily wait six months. An arbitrary six month delay on all floating drilling will penalize the responsible operators along with those who are not. How did six months come about? Why not five? Why not nine? We proposed that operators fulfill the requirements in our detailed recommendations and then proceed. Some operators might be able to do it faster than others. We need performance standards, not an arbitrary time in the 'penalty box'.
e) A second cause of this disaster was the inattention that people paid to the warning signs. No one will do that again for a long time to come. (Editorial comment: having executives not necessary for operations to go the rig for a 'safety' award is in itself unsafe – if nothing else for the helicopter ride. It caused the "C team" to be on the switch.)

I believe the blanket ban will drive responsible operators away from the Gulf of Mexico. Besides reducing lease sale income and production revenue, it will INCREASE future risk by keeping out less responsible operators and making future equipment used in the gulf be worse. We need performance standards – not arbitrary requirements – to drive what we do.

As far as I know my work on the review is done. I'll be happy to help in the future if I can, but would need my first two concerns addressed before I would be prepared to do so.

I hope you're spending time with your family and not reading this on Memorial Day, if you happen to read this – happy memorial day to you as well.

I would like some kind of reply. Thanks for your patience.

Ford Brett

PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Sunday, May 30, 2010 8:08 PM
To: Ford Brett; 'karnold@karnoldconsulting.com'
Cc: 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'; 'juvkam-wold@pe.tamu.edu'
Subject: Re: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ford, we just put out a press release with an NTL clarifying the scope of the moratorium. Shallow water wells and certain development wells in deep water are allowed.

Have a good Memorial Day!

Steve

From: Ford Brett <FBrett@PetroSkills.com>
To: Ken Arnold <karnold@karnoldconsulting.com>
Cc: Black, Steve; Tom.Williams@Nautilus-Int.com <Tom.Williams@Nautilus-Int.com>; egward@tamu.edu <egward@tamu.edu>; Hans Juvkam-Wold <juvkam-wold@pe.tamu.edu>
Sent: Sat May 29 21:43:55 2010
Subject: Re: Potential report to Senators from Contributors to Secretary Salazar's 30 Day Report to The President

Ken et al

I just read on bloomberg that Rigs in less than 500 ft of h2o are exempt. True?

All we need now is to alllow development drilling - any chance?

Ford Brett

(m) +1 918 408 9516

On May 29, 2010, at 5:25 PM, "Ken Arnold" <karnold@karnoldconsulting.com> wrote:

> Steve
>
> There has been a change in plans. The current thought is to send the attached to Senator Landry and Senator Hutchinson. We have connections at both. Please note we turned down the tone.
>
> We are also in the process of gathering more signatures.
>
> Ken
>
> Kenneth E. (Ken) Arnold
>
> K Arnold Consulting, Inc.
>
> 3031 Shadowdale
>
> Houston, TX 77043
>
> Cell: 832-212-0160
>
> Home: 713-939-1034

www.karnoldconsulting.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Saturday, May 29, 2010 2:52 PM
To: 'karnold@karnoldconsulting.com'
Cc: 'fbrett@petroskills.com'; 'Tom.Williams@Nautilus-Int.com'; 'egward@tamu.edu'
Subject: Re: Potential Op Ed from Contributors to Secretary Salazar's 30 Day Report to The President

Thanks Ken. The Secretary is traveling this weekend, but I'd be happy to talk further. I appreciate your courtesies.

And to each of you, thanks again for your helpful work on the 30-day safety report.
Steve

<Our Views Are Not Appropriately Represented- Rev 1.docx>

From: Kemkar, Neal
To: edanenberger@[redacted]
Subject: Bud - please let me know when you have had a conversation with Donna Huston
Date: Monday, May 17, 2010 7:18:31 PM

We are eager for you to start your participation in the project the moment you have discussed your ethics requirements and signed the required paperwork.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: edanenberger@[redacted]
cc: Black, Steve; Hanley, Kallie;
Subject: CONFIDENTIAL 30-Day Safety Report Documents for Bud Danenberger
Date: Wednesday, May 19, 2010 10:36:43 AM
Attachments: DRAFT JITF Recommendations.pdf
65-2_e1.pdf
IADC HSE Case Guidelines-MODU Offshore.pdf
100516 Candidate Recommendations.doc

DRAFT – PREDECISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
These documents may not be disclosed under FOIA

Bud –

Thank you for returning signed confidentiality and non-disclosure agreements. These documents are covered by that agreement.

Please the attached draft safety recommendations. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

In addition, please see the attached draft recommendations from the API task forces. Please do not distribute without permission from API.

Also included for reference are IADC safety case in full, and a draft API report (Isolating Potential Flow Zones During Well Construction API RECOMMENDED PRACTICE 65—PART 2 FIRST EDITION, MAY 2010).

Look forward to initially discussing these documents at **11am.**

Neal

From: Kemkar, Neal
To: Elmer Danenberger;
cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine;
Subject: FINAL 30-DAY SAFETY REPORT
Date: Thursday, May 27, 2010 1:54:51 PM
Attachments: Interim Measures Report 100527 FINAL.pdf
30day report transmittal letter.pdf

Bud - Final report and transmittal letter are attached, with thanks from the Secretary and the whole team. We will be in touch shortly about next steps.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: "edanenberger@[redacted]
Subject: Re: Bud - please let me know when you have had a conversation with Donna Huston
Date: Tuesday, May 18, 2010 8:42:02 PM

Thanks Bud. That's good news. Welcome back. If you have a 2 mins to talk -- please give me a call tonight. [redacted]

From: Elmer Danenberger <edanenberger@gmail.com>
To: Kemkar, Neal
Cc: Georg, Shanda
Sent: Tue May 18 20:40:32 2010
Subject: RE: Bud - please let me know when you have had a conversation with Donna Huston

Thanks Neal.

I am back from my trip and everything seems to be in order.

Shanda did a great job; she was very helpful! I will meet with her at 0930 in Herndon to execute the documents. I will then be ready to go!

Bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Monday, May 17, 2010 7:18 PM
To: edanenberger@[redacted]
Subject: Bud - please let me know when you have had a conversation with Donna Huston
Importance: High

We are eager for you to start your participation in the project the moment you have discussed your ethics requirements and signed the required paperwork.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Elmer Danenberger; Hanley, Kallie;
cc: Georg, Shanda;
Subject: RE: bud Danenberger
Date: Wednesday, May 19, 2010 10:33:17 AM

Thanks Bud. We are preparing them now.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Elmer Danenberger [mailto:edanenberger@[redacted]]
Sent: Wednesday, May 19, 2010 10:32 AM
To: Kemkar, Neal; Hanley, Kallie
Cc: Georg, Shanda
Subject: FW: bud Danenberger
Importance: High

Neal & Kallie,

Please send me the background materials as soon as possible so I can begin my review.

Thanks.

Bud

From: shanda.georg@aqd.nbc.gov [mailto:shanda.georg@aqd.nbc.gov]
Sent: Wednesday, May 19, 2010 10:17 AM
To: Kemkar, Neal; Hanley, Kallie; edanenberger@[redacted]
Cc: katherine.valltos@aqd.nbc.gov; daniel.mccarthy@aqd.nbc.gov; john.nyce@aqd.nbc.gov; william.archambeault@aqd.nbc.gov
Subject: bud Danenberger
Importance: High

All -

The paper work is signed and Bud Danenberger is now under contract with DOI to support Deepwater Horizon SME support effective today 5/19/2010 through June 30, 2010 up to a not to exceed Labor hour order of $24,800.00

DOI and Bud may now engage with each other.

The documents will be sent out shortly.

regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Kemkar, Neal
To: "edanenberger@[redacted]
cc: Black, Steve; Hanley, Kallie;
Subject: Re: Draft Interim Measures Report for Immediate Review
Date: Tuesday, May 25, 2010 4:00:57 PM

Many thanks Bud. Your keen eye on this has been invaluable throughout. We will certainly be in touch shortly about next steps.

Neal

From: Elmer Danenberger <edanenberger@[redacted]>
To: Kemkar, Neal
Cc: Black, Steve; Hanley, Kallie; Georg, Shanda
Sent: Tue May 25 15:31:10 2010
Subject: RE: Draft Interim Measures Report for Immediate Review

Neal,

Overall, the report looks good. My comments follow. I only commented on bigger picture issues, and did not consider style or punctuation. The comments that I consider most important are at the end and are preceded by asterisks.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 10:43 AM
To: Elmer Danenberger
Cc: Black, Steve
Subject: Draft Interim Measures Report for Immediate Review

Bud – please review the attached draft of the safety report and let us know, by later today, about any big picture thoughts or comments you have. The Secretary and White House are reviewing this draft. I will call you momentarily to discuss.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Elmer Danenberger;
Subject: RE: FINAL 30-DAY SAFETY REPORT
Date: Thursday, May 27, 2010 2:19:07 PM

It will go public within the hour. Stay tuned.

Press inquires to Press Secretary Kendra Barkoff Kendra_Barkoff@ios.doi.gov

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Elmer Danenberger [mailto:edanenberger@[redacted]
Sent: Thursday, May 27, 2010 2:17 PM
To: Kemkar, Neal
Subject: RE: FINAL 30-DAY SAFETY REPORT

Thanks Neal. Couple of quick questions:

1. Is it OK to distribute the report to interested parties?
2. To whom should I direct press inquiries?

bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Thursday, May 27, 2010 1:55 PM
To: Elmer Danenberger
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: FINAL 30-DAY SAFETY REPORT

Bud - Final report and transmittal letter are attached, with thanks from the Secretary and the whole team. We will be in touch shortly about next steps.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: "edanenberger@[redacted]
cc: Black, Steve; Hanley, Kallie; Georg, Shanda; Gary, Art;
Subject: Re: Thank you Bud and further engagement
Date: Friday, May 14, 2010 7:58:58 PM

Thanks Bud. Always want to do what's best for you. Be in touch.

Neal

From: Elmer Danenberger <edanenberger@[redacted]
To: Kemkar, Neal
Cc: Black, Steve; Hanley, Kallie; Georg, Shanda
Sent: Fri May 14 19:57:18 2010
Subject: RE: Thank you Bud and further engagement

Neal,

Because I am very cautious about contract and ethics issues, I spoke to the Contract Officer (CO) and requested her guidance. She asked that I not sign any documents until she has transmitted them for my consideration. She also advised that I should receive written ethics clearance (email from Ethics Officer is okay) before signing any documents.

Thanks.

Bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 7:14 PM
To: Elmer Danenberger
Cc: Black, Steve; Hanley, Kallie
Subject: RE: Thank you Bud and further engagement

Bud – good to talk to you. Look forward to our collaboration.

As discussed, please review and return the attached non disclosure agreement.
My return fax number is 202.208.4561

Thanks,

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Elmer Danenberger [mailto:edanenberger@gmail.com]
Sent: Tuesday, May 11, 2010 7:12 PM
To: Kemkar, Neal
Subject: RE: Thank you Bud and further engagement

Thanks Neal. I enjoyed talking to you.

I received your message and will call you tomorrow morning if that is okay. I have a telecon with some Canadian regulators at 0900. I could call you before that at 0830 or after at 1000. If I don't hear from you otherwise, I will call at 1000.

bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 6:27 PM
To: edanenberger@gmail.com
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Bud and further engagement

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Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Elmer Danenberger;
cc: Black, Steve; Hanley, Kallie;
Subject: RE: Thank you Bud and further engagement
Date: Friday, May 14, 2010 7:13:48 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

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From: Kemkar, Neal
To: edanenberger@[redacted]
cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine;
Subject: Thank you Bud and further engagement
Date: Tuesday, May 11, 2010 6:27:23 PM

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Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Georg, Shanda
To: Kemkar, Neal; Hanley, Kallie; edanenberger@[redacted]
cc: Valltos, Katherine; McCarthy, Daniel; Nyce, John W; Archambeault, William;
Subject: bud Danenberger
Date: Wednesday, May 19, 2010 10:16:53 AM

All -

The paper work is signed and Bud Danenberger is now under contract with DOI to support Deepwater Horizon SME support effective today 5/19/2010 through June 30, 2010 up to a not to exceed Labor hour order of $24,800.00

DOI and Bud may now engage with each other.

The documents will be sent out shortly.

regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Georg, Shanda
To: edanenberger@[redacted]
cc: Kemkar, Neal; Valltos, Katherine; Valltos, Katherine; McCarthy, Daniel; Hanley, Kallie;
Subject: Fw: N10PX18336 Elmer P. Danenberger III - Contract for your review and signature
Date: Tuesday, May 18, 2010 5:14:20 PM
Attachments: 18336_Danenberger.PDF

Hi Bud,
Attached is the commercial contract in support of the DOI Deepwater Horizon subject matter expert support. The period of performance is through June 30, 2010 - this period of performance allows you latitude in the event that the hours proposed are not used up front in support of the peer review.

The contract number is: N10PX18336

This is issued as a labor hour contract - with a not to exceed $24,800 ceiling - the contract is very specific and is only 7 pages - the sow is attached - no changed from May 17th, but included as attachment 1 - all terms and conditions remain unchanged.

Invoices (submitted your format) will be submitted through govpay - www.govpay.gov - very easy, and fast to get paid.

Please review the attached document - if acceptable, return page 1 - with your name printed and signature along with the date.

The ethics issue is resolved, and I believe that hurdle has been removed.

Based on our conversation on Saturday before you went out of twon, you mentioned that you do not have scanning or faxing capability - we discussed an option of dropping off the papers at the MMS building, and I would make copies for you - if you are amendable to this, I will be in the office anytime after 9am and will assist you.

Next steps:

1. Sign/date and return and return the docs listed below to me and once I have them, I will sign the contract, and you are ready to go - as long as there are no open issues, but based on the emails, it appears all is well.
2. I will send you a fully executed document for your files (or provide to you when you drop by the office 5/19), and then you may contact Neal Kemkar - if we work this at the office, I will send him an email, and he will then know that you have received the package and you are availble. The award is effective May 19, 2010.
3. If you have any questions, please do not histitate to contact me.
4. Please read the document - 7 pages - it is clear and you will find it is not legal

jargon and easy to understand - bottom line, don't exceed the authorized ceiling of $24,800 - if you in anyway have a concern that you are being directed to do something outside of the scope of this contract, or above the ceiling please contact me - that is what I am here for - to keep us all on track.

To return to Contracting Officer:

1. Return 1st page of the contract
2. Non-Disclosure/Conflict of interest form

best regards, shanda

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We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Hanley, Kallie
To: edanenberger@[redacted]
cc: Kemkar, Neal; Johnston, Doris;
Subject: mtg at Interior: Tuesday, May 11 at 1pm EST
Date: Friday, May 07, 2010 8:11:41 PM

Bud

I am writing to confirm your meeting here at Interior on Tuesday, May 11th 2010 at 1pm EST. Again, you will be meeting with a handful of folks from the Office of the Secretary as well as MMS notably Steve Black, Counselor to the Secretary and Mary Katherine Ishee, Deputy Director of MMS. Please enter through the C Street Entrance of the Main Interior Building at 1849 C Street, NW 20240. Let security know you have a meeting with Steve in room 6130 and if security needs to please have them call Doris Johnston in Steve's office at 202-208-4123. Feel free to call or email me if you have any questions until then.

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Georg, Shanda
To: edanenberger@[redacted]
cc: McCarthy, Daniel; edanenberger@gmail.com; Hanley, Kallie; Valltos, Katherine; Kemkar, Neal;
Subject: Re: revised sow and other docs
Date: Monday, May 17, 2010 4:33:46 PM

Hi Bud, I called D&B, and they will work with me to get you a number toot suite! (sp)....they will also contact you....they understand the urgency and will expedite this evening and am tomorrow. I will give them your cell, if ok? best, sg

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From: Shanda Georg/NBC/OS/DOI
To: edanenberger@[redacted]
Cc: Katherine Valltos/NBC/OS/DOI@DOI, Daniel Mccarthy/NBC/OS/DOI@DOI, "Kemkar, Neal" <Neal_Kemkar@ios.doi.gov>, "Hanley, Kallie" <Kallie_Hanley@ios.doi.gov>
Date: 05/17/2010 04:05 PM
Subject: revised sow and other docs

Hi Bud

Base on your concerns, attached is a revised sow - which incorporates changes to the due dates and the format for the peer report was removed - format is of your choice . Please review, and if I don't receive further questions, I will move forward with the purchase order.

Task one is due May 28, 2010, as a Labor Hour
Task two based on your level of effort with be a Labor Hour, and the final date of performance will not exceed June 30, 2010 - in the event hours not used as estimated in your price quote.

Bud, I will need you to register with Dun and Bradstreet to obtain a D&B number or I will be unable to proceed with purchase order - it will take a 5 minute phone call to obtain a number - and it is free. I will need the D&B number as soon as possible - I know you are out of town, but hoping you will be able to obtain it quickly. 877-753-1444(sales num/mon thru fri 9 to 7) 1-866-484-1058 or 1-866-415-0043 - they are also on the internet if you want to go that route -

Also attached is the electronic payment for that must be completed and returned to me - this will allow you to be paid - your ssn will be used as your tax id number. My fax number is below, in the event you do not want to email the form. Please return this form when you return the purchase order.

I called Donna Huston this morning, and left a message to follow up with her on your status - no return call or email. Will try again tomorrow - we lost power and phones at MMS, so working remotely with what I had on my desk top - only reachable by bb at the moment or email. I do understand you are on hold until Ethics contacts you - totally understand.

[attachment "Deepwater SME Support SOW_Rev 1_May 17 2010 (Autosaved). pdf" deleted by Shanda Georg/NBC/OS/DOI]

[attachment "ACH VENDOR-MISC PAYMENT ENROLLMENT FORM.docx" deleted by Shanda Georg/NBC/OS/DOI]

If you have any questions, please contact me.

best regards, shanda

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From: Huston, Donna
To: Elmer Danenberger;
cc: Kemkar, Neal; Georg, Shanda;
Subject: RE: Thank you Bud and further engagement
Date: Tuesday, May 18, 2010 2:35:33 PM

Hello Bud

"Communication" has certainly been a challenge for us lately.
I was on travel last week and then we have been experiencing repeated outages of e-mail and phone service here in the Atrium.
I attempted to reach you on your home phone last night; but got a busy signal. As we all know busy signals are "extinct" these days; so I assumed that meant you were experiencing the same technical problems. I attempted to send an e-mail to your home e-mail last night; but I do not know if that made its way through to you.

I will attempt to address all of your concerns.

On the issue of your retirement and the possibility of any "offsets" due to your contract with DOI...
I spoke with Margie Krom who you know serves as our expert on matters concerning retirement.
She indicated that, as long as you were working on a contract for DOI and not returning as a "re-employed annuitant"; your retirement benefits would not be impacted.
She mentioned the fact that you may have to make arrangements for payments to the Social Security Administration based upon your earnings....But there will be no off-set to your CSRS Annuity.

On to the issue of "Ethics"....
Because of your SES Status, there is the...
One-Year Restrictions on Certain Senior Personnel of the Executive Branch and Independent Agencies.—
(1) Restrictions.— In addition to the restrictions set forth in subsections (a) and (b), any person who is an officer or employee of the executive branch of the United States who, *within 1 year after the termination of his or her service or employment* as such officer or employee, knowingly makes, *with the intent to influence, any communication to or appearance before any officer or employee of the department or agency in which such person served within 1 year before such termination,* ***on behalf of any other person (except the United States),*** *in connection with any matter* ***on which such person seeks official action by any officer or employee of such department or agency****, shall be punished as provided in section 216 of this title.*

In the case of the proposed contract; you are not communicating with DOI on behalf

of any other person (e.g.: a company or an individual who has secured your services). You are also not seeking official action by the Department. Therefore, the proposed contract is within this ethical constraint.

Next.....As you know....
You may not represent another party back to the United States on any particular matter in which you participated personally and substantially.
The restriction does not apply in this case because you are not representing another party back to the United States. 5 CFR 2641.201 (g) (2) specifically states that 'Any other person' (another party) excludes the former employee himself or any sole proprietorship owned by the former employee. Since you have not "incorporated", you are covered by this exception.

There is also the two year restriction concerning your representation back to the United States on any particular matter for which you had official responsibility.
Again....You are not representing "another party back to the United States"; therefore this restriction does not apply (see citation above).

Thank you for your help Bud!

Donna Huston
Ethics Officer
Minerals Management Service
Mail Stop: 2400
phone: 703-787-1417
fax: 703-787-1046

From: Elmer Danenberger [mailto:edanenberger@[redacted]
Sent: Saturday, May 15, 2010 5:34 AM
To: Huston, Donna
Subject: FW: Thank you Bud and further engagement

fyi

From: Elmer Danenberger [mailto:edanenberger@[redacted]
Sent: Friday, May 14, 2010 7:57 PM
To: 'Kemkar, Neal'
Cc: 'Black, Steve'; 'Hanley, Kallie'; 'shanda.georg@aqd.nbc.gov'
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Bud, I will need you to register with Dun and Bradstreet to obtain a D&B number or I will be unable to proceed with purchase order - it will take a 5 minute phone call to obtain a number - and it is free. I will need the D&B number as soon as possible - I know you are out of town, but hoping you will be able to obtain it quickly. 877-753-1444(sales num/mon thru fri 9 to 7) 1-866-484-1058 or 1-866-415-0043 - they are also on the internet if you want to go that route -

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Bud, I will need you to register with Dun and Bradstreet to obtain a D&B number or I will be unable to proceed with purchase order - it will take a 5 minute phone call to obtain a number - and it is free. I will need the D&B number as soon as possible - I know you are out of town, but hoping you will be able to obtain it quickly. 877-753-1444(sales num/mon thru fri 9 to 7) 1-866-484-1058 or 1-866-415-0043 - they are also on the internet if you want to go that route -

Also attached is the electronic payment for that must be completed and returned to me - this will allow you to be paid - your ssn will be used as your tax id number. My fax number is below, in the event you do not want to email the form. Please return this form when you return the purchase order.

I called Donna Huston this morning, and left a message to follow up with her on your status - no return call or email. Will try again tomorrow - we lost power and phones at MMS, so working remotely with what I had on my desk top - only reachable by bb at the moment or email. I do understand you are on hold until Ethics contacts you - totally understand.

If you have any questions, please contact me.

best regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Georg, Shanda
To: edanenberger@[redacted]
Subject: RFQ N10PX18336 - Request for Quote - Deepwater Horizon Peer Review Support
Date: Friday, May 14, 2010 8:25:27 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.pdf
Deepwater SME Support SOW_FINAL.pdf

Dear Mr. Danenberger,

The department of Interior is interested in contracting with you to obtain your expertise in the performance of a peer review of the Outer Continental Shelf Safety Oversight Board Report which will provide recommendations to the President of the United States Concerning the Deep Water event. This is a request for a Labor Hour Quote.

Attached is a statement of work for your consideration. Please provide a Firm Fixed price quote no later than Monday, 17th to me, at my email address: shanda.georg@aqd.nbc.gov.

I have also attached a non-disclosure form to be returned to me with the FFP quote. All documents are to be returned to the contracting officer.

This is a commercial acquisition, performed under Far Part 12 and in accordance with Far Part 13 Guidance.

FAR clauses 52.212-1; 52.212-2; 52.212-3; 52.212-4; and 52.212-5 apply.

Please reference RFQ Number N10PX18336 on your quote - The quote is to be submitted as a Labor Hour Quote.

If you have any questions, please put them in writing and send them to me and if I am unable to provide a response, I will forward to the program office for a response.

Should you need additional time please let me know. My contact information is below. I will be in the office on Saturday around 10:30 EST.

Best regards, shanda

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We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Georg, Shanda
To: edanenberger@[redacted]
cc: Dedanenberger@[redacted] Hanley, Kallie; Kemkar, Neal;
Subject: Signed Docs Attached for your records - Re: Bud Danenberger
Date: Wednesday, May 19, 2010 10:33:27 AM
Attachments: N10PX18336signedcontract.PDF
ednondisclosure_conflict of interest statement.PDF

Copies of signed contract and non-disclosure/conflict of interest statement for your records.

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
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From: Shanda Georg/NBC/OS/DOI
To: "Kemkar, Neal" <Neal_Kemkar@ios.doi.gov>, "Hanley, Kallie" <Kallie_Hanley@ios.doi.gov>, edanenberger@[redacted]
Cc: Katherine Valltos/NBC/OS/DOI@DOI, Daniel Mccarthy/NBC/OS/DOI@DOI, John W Nyce/NBC/OS/DOI@DOI, William R Archambeault/NBC/OS/DOI@DOI
Date: 05/19/2010 10:16 AM

Subject: bud Danenberger

All -

The paper work is signed and Bud Danenberger is now under contract with DOI to support Deepwater Horizon SME support effective today 5/19/2010 through June 30, 2010 up to a not to exceed Labor hour order of $24,800.00

DOI and Bud may now engage with each other.

The documents will be sent out shortly.

regards, shanda

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From: Shanda Georg/NBC/OS/DOI
To: "Kemkar, Neal" <Neal_Kemkar@ios.doi.gov>, "Hanley, Kallie" <Kallie_Hanley@ios.doi.gov>, edanenberger@[redacted]
Cc: Katherine Valltos/NBC/OS/DOI@DOI, Daniel Mccarthy/NBC/OS/DOI@DOI, John W Nyce/NBC/OS/DOI@DOI, William R Archambeault/NBC/OS/DOI@DOI
Date: 05/19/2010 10:16 AM

Subject: bud Danenberger

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An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Black, Steve
To: edanenberger@[redacted]
Subject: Question
Date: Wednesday, May 26, 2010 8:27:12 PM

Bud, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams? Thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Black, Steve
To: Elmer Danenberger;
Subject: RE: Question
Date: Wednesday, May 26, 2010 8:43:44 PM

Thanks very much. Am also checking with Lars et al.

From: Elmer Danenberger [mailto:edanenberger@[redacted]
Sent: Wednesday, May 26, 2010 8:38 PM
To: Black, Steve
Subject: RE: Question

Steve, I'm fairly confident that at least some of the MODUs have 2 B/S rams. I expect that the % is highest for the deepwater rigs. bud

---

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Wednesday, May 26, 2010 8:27 PM
To: edanenberger@[redacted]
Subject: Question

Bud, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams? Thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
To: edanenberger@[redacted]
cc: Black, Steve; Hanley, Kallie;
Subject: CONFIDENTIAL 30-Day Safety Report Documents for Bud Danenberger
Date: Wednesday, May 19, 2010 10:36:43 AM
Attachments: DRAFT JITF Recommendations.pdf
65-2_e1.pdf
IADC HSE Case Guidelines-MODU Offshore.pdf
100516 Candidate Recommendations.doc

DRAFT – PREDECISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
These documents may not be disclosed under FOIA

Bud –

Thank you for returning signed confidentiality and non-disclosure agreements. These documents are covered by that agreement.

Please the attached draft safety recommendations. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

In addition, please see the attached draft recommendations from the API task forces. Please do not distribute without permission from API.

Also included for reference are IADC safety case in full, and a draft API report (Isolating Potential Flow Zones During Well Construction API RECOMMENDED PRACTICE 65—PART 2 FIRST EDITION, MAY 2010).

Look forward to initially discussing these documents at **11am.**

Neal

From:	Kemkar, Neal
To:	Elmer Danenberger;
cc:	Black, Steve; Hanley, Kallie; Ishee, Mary Katherine;
Subject:	FINAL 30-DAY SAFETY REPORT
Date:	Thursday, May 27, 2010 1:54:51 PM
Attachments:	Interim Measures Report 100527 FINAL.pdf 30day report transmittal letter.pdf

---

Bud - Final report and transmittal letter are attached, with thanks from the Secretary and the whole team. We will be in touch shortly about next steps.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Elmer Danenberger;
cc: Black, Steve; Hanley, Kallie;
Subject: RE: Thank you Bud and further engagement
Date: Friday, May 14, 2010 7:13:48 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

Bud – good to talk to you. Look forward to our collaboration.

As discussed, please review and return the attached non disclosure agreement.
My return fax number is 202.208.4561

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Elmer Danenberger [mailto:edanenberger@[redacted]
Sent: Tuesday, May 11, 2010 7:12 PM
To: Kemkar, Neal
Subject: RE: Thank you Bud and further engagement

Thanks Neal. I enjoyed talking to you.

I received your message and will call you tomorrow morning if that is okay. I have a telecon with some Canadian regulators at 0900. I could call you before that at 0830 or after at 1000. If I don't hear from you otherwise, I will call at 1000.

bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 6:27 PM
To: edanenberger@[redacted]
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Bud and further engagement

Bud – thanks very much for coming to share your thoughts with us earlier this

afternoon. Very impressive and very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at your home number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

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Office of the Secretary
U.S. Department of the Interior
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Sent: Tuesday, May 11, 2010 6:27 PM
To: edanenberger@[redacted]
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Bud and further engagement

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Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: edanenberger@[redacted]
cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine;
Subject: Thank you Bud and further engagement
Date: Tuesday, May 11, 2010 6:27:23 PM

Bud – thanks very much for coming to share your thoughts with us earlier this afternoon. Very impressive and very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at your home number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: karnold@karnoldconsulting.com;
cc: Black, Steve; Hanley, Kallie;
Ishee, Mary Katherine;
Subject: Thank you Ken and further engagement
Date: Tuesday, May 11, 2010 6:35:18 PM

Ken – thanks again for sharing your thoughts with us on the phone. Very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at your office number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Ken Arnold;
Subject: RE: Thank you Ken and further engagement
Date: Wednesday, May 12, 2010 7:09:59 PM

Thanks Ken. Steve was in Houston today and we are scheduled to discuss this tomorrow. I will get back in touch.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, May 12, 2010 7:06 PM
To: Kemkar, Neal
Subject: RE: Thank you Ken and further engagement

Neal

I left a phone message last night. I can be reached on my cell phone if you need me.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 5:35 PM
To: karnold@karnoldconsulting.com
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Ken and further engagement

Ken – thanks again for sharing your thoughts with us on the phone. Very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at

your office number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve; Hanley, Kallie;
Subject: RE: Thank you Ken and further engagement
Date: Friday, May 14, 2010 7:15:56 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

Thanks Ken – good to talk to you. Looking forward to our collaboration.

As discussed, please review and return the attached non disclosure agreement.
My return fax number is 202.208.4561

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Friday, May 14, 2010 6:20 PM
To: Kemkar, Neal
Subject: RE: Thank you Ken and further engagement

As discussed

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 12, 2010 6:10 PM
To: Ken Arnold
Subject: RE: Thank you Ken and further engagement

Thanks Ken. Steve was in Houston today and we are scheduled to discuss this tomorrow. I will get back in touch.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, May 12, 2010 7:06 PM
To: Kemkar, Neal
Subject: RE: Thank you Ken and further engagement

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From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 5:35 PM
To: karnold@karnoldconsulting.com
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Ken and further engagement

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From: Kemkar, Neal
To: "karnold@karnoldconsulting.com";
cc: Hanley, Kallie;
Subject: Re: Thank you Ken and further engagement
Date: Friday, May 14, 2010 8:26:08 PM

Thanks Ken but I am just learning our process. Let's do this right.

You just got an email from a Shanda Georg. Please review/return contracting documents to her and disregard my note.

Thanks.

From: Ken Arnold <karnold@karnoldconsulting.com>
To: Kemkar, Neal
Sent: Fri May 14 20:10:32 2010
Subject: RE: Thank you Ken and further engagement

I faxed it back to you but this was the first time I used my fax machine Let me know if you got it.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
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www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:16 PM
To: Ken Arnold
Cc: Black, Steve; Hanley, Kallie
Subject: RE: Thank you Ken and further engagement

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My return fax number is 202.208.4561

Thanks,
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From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 12, 2010 6:10 PM
To: Ken Arnold
Subject: RE: Thank you Ken and further engagement

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Office of the Secretary
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(202) 208-5379

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve;
Subject: CONFIDENTIAL 30-Day Safety Report Documents for Ken Arnold
Date: Tuesday, May 18, 2010 2:23:38 PM
Attachments: DRAFT JITF Recommendations.pdf
65-2_e1.pdf
IADC HSE Case Guidelines-MODU Offshore.pdf
100516 Candidate Recommendations.doc

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CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
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Ken –

Thank you for returning signed confidentiality and non-disclosure agreements. These documents are covered by that agreement.

Further to our conversation and request below, kindly review and be prepared to comment on the attached draft safety recommendations. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

In addition, please see the attached draft recommendations from the API task forces. Please do not distribute without permission from API.

Also included for reference are IADC safety case in full, and the draft API report (Isolating Potential Flow Zones During Well Construction API RECOMMENDED PRACTICE 65—PART 2 FIRST EDITION, MAY 2010) that Steve mentioned on this morning's call.

Please contact one of us if you have any questions. Thanks for your assistance.

Neal

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve;
Subject: RE: CONFIDENTIAL 30-Day Safety Report Documents for Ken Arnold
Date: Tuesday, May 18, 2010 4:14:04 PM
Attachments: API comparison of safety case bridging document to the well construction interfacing document.doc

---

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Ken –

As promised, attached is more language from API on the safety case bridging document comparison to the other document they propose, which they call a "well construction interfacing document." For cross reference, there is a good visual document explaining this document on page 7 of the API document we send you earlier this afternoon.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Tuesday, May 18, 2010 2:24 PM
To: 'Ken Arnold'
Cc: Black, Steve
Subject: CONFIDENTIAL 30-Day Safety Report Documents for Ken Arnold
Importance: High

DRAFT – PREDECISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
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Ken –

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Please contact one of us if you have any questions. Thanks for your assistance.

Neal

From: Kemkar, Neal
To: Ken Arnold;
Subject: FW: Revised draft recommendations
Date: Thursday, May 20, 2010 3:26:24 PM
Attachments: 100520 DRAFT Offshore Drilling Safety Recommendations_v 1.doc

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DRAFT – PREDICISIONAL CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION

This draft may not be disclosed under FOIA

[redacted]

[redacted]

From: Kemkar, Neal
To: Ken Arnold;
Subject: RE: Offshore Drilling Safety Recommendations
Date: Thursday, May 20, 2010 5:41:46 PM

Thanks Ken. Just sent you the proposed SEMS rule. Please review.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Thursday, May 20, 2010 5:15 PM
To: Kemkar, Neal
Subject: Offshore Drilling Safety Recommendations

Attached is my mark up of the previous document. I have just received the new document and will work on it tomorrow. Perhaps some of this info is of use to you in the meantime.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal
To: "karnold@karnoldconsulting.com";
Subject: Re: Offshore Drilling Safety Recommendations
Date: Thursday, May 20, 2010 6:02:43 PM

To clarify. Your review of sems rule is top priority, other docs FYI until that is complete. Thanks.

From: Kemkar, Neal
To: Ken Arnold <karnold@karnoldconsulting.com>
Sent: Thu May 20 17:41:45 2010
Subject: RE: Offshore Drilling Safety Recommendations

Thanks Ken. Just sent you the proposed SEMS rule. Please review.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Thursday, May 20, 2010 5:15 PM
To: Kemkar, Neal
Subject: Offshore Drilling Safety Recommendations

Attached is my mark up of the previous document. I have just received the new document and will work on it tomorrow. Perhaps some of this info is of use to you in the meantime.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve;
Subject: RE: Draft Interim Measures Report for Immediate Review
Date: Tuesday, May 25, 2010 10:23:44 PM

Thanks for your review, your support, and your comments Ken. We will be sure to double check. As always, a pleasure. Hope your service on the jury was okay today.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Tuesday, May 25, 2010 10:22 PM
To: Kemkar, Neal
Cc: Black, Steve
Subject: RE: Draft Interim Measures Report for Immediate Review

The This is really a great report. A few nitpicking comments:

1. On Screen 18 it says:

[redacted]

[redacted]

Ken

Kenneth E. (Ken) Arnold
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3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 9:44 AM
To: Ken Arnold
Cc: Black, Steve
Subject: Draft Interim Measures Report for Immediate Review

Ken - please review the attached draft of the safety report and let us know, by later today, about any big picture thoughts or comments you have. The Secretary and White House are reviewing this draft. I will call you momentarily to discuss.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve;
Subject: RE: Additional Thoughts
Date: Wednesday, May 26, 2010 12:54:17 PM

Thanks Ken. Is there a better way to frame that requirement, in your view for purposes of the report?

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, May 26, 2010 12:52 PM
To: Kemkar, Neal
Cc: Black, Steve
Subject: Additional Thoughts

Neal and Steve

I think I should point out that most drilling engineers are NOT PEs and the requirement of a PE review of every well plan may be problematic. I am a Petroleum Engineering PE in Texas and inactive civil engineering PE in NM, LA, VA, and NY. I am not capable of reviewing a well plan adequately. I have participated as a member of the Society of Petroleum Engineers (SPE) in writing and scoring the national PE exam in petroleum engineering. It is mostly focused on reservoir and production engineering topics and has very little drilling content. Thus the fact that someone has a PE, even if it is in petroleum, does not indicate a knowledge of safe well design and operations.

SPE does the writing and scoring of the petroleum engineering exam for the US and administers an SPE developed program of certifying petroleum engineers internationally in countries that do not have a national PE or certification program. It would be possible for them to develop and administer a program to certify well planning engineers.

Ken

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Sent: Tuesday, May 25, 2010 9:22 PM
To: 'Kemkar, Neal'
Cc: 'Black, Steve'
Subject: RE: Draft Interim Measures Report for Immediate Review

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[redacted]

Ken

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From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 9:44 AM
To: Ken Arnold
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Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve;
Subject: RE: Additional Thoughts
Date: Wednesday, May 26, 2010 12:57:06 PM

By the way, on your second point from last night, [redacted]

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, May 26, 2010 12:52 PM
To: Kemkar, Neal
Cc: Black, Steve
Subject: Additional Thoughts

Neal and Steve

I think I should point out that most drilling engineers are NOT PEs and the requirement of a PE review of every well plan may be problematic. I am a Petroleum Engineering PE in Texas and inactive civil engineering PE in NM, LA, VA, and NY. I am not capable of reviewing a well plan adequately. I have participated as a member of the Society of Petroleum Engineers (SPE) in writing and scoring the national PE exam in petroleum engineering. It is mostly focused on reservoir and production engineering topics and has very little drilling content. Thus the fact that someone has a PE, even if it is in petroleum, does not indicate a knowledge of safe well design and operations.

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Ken

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Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Tuesday, May 25, 2010 9:22 PM
To: 'Kemkar, Neal'
Cc: 'Black, Steve'
Subject: RE: Draft Interim Measures Report for Immediate Review

The This is really a great report. A few nitpicking comments:

[redacted]

Ken

Kenneth E. (Ken) Arnold

K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 9:44 AM
To: Ken Arnold
Cc: Black, Steve
Subject: Draft Interim Measures Report for Immediate Review

Ken - please review the attached draft of the safety report and let us know, by later today, about any big picture thoughts or comments you have. The Secretary and White House are reviewing this draft. I will call you momentarily to discuss.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From:	Kemkar, Neal
To:	Ken Arnold;
cc:	Black, Steve; Ishee, Mary Katherine; Hanley, Kallie;
Subject:	FINAL 30-DAY SAFETY REPORT
Date:	Thursday, May 27, 2010 1:55:26 PM
Attachments:	Interim Measures Report 100527 FINAL.pdf 30day report transmittal letter.pdf

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Ken – Final report and transmittal letter are attached, with thanks from the Secretary and the whole team. We will be in touch shortly about next steps.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
To: karnold@karnoldconsulting.com;
cc: Kemkar, Neal;
Subject: May 10th phone call with DOI
Date: Friday, May 07, 2010 7:00:07 PM

Ken

I want to confirm you will have a call on Monday, May 10th at 12:00pm EST with a handful of folks from the Secretary's office and MMS. Steve Black, Counselor to the Secretary will anchor the call and introduce everyone else who is able to join. They will call you on your mobile at [redacted] If you have any questions prior to the call please contact me.

Thank you,

Kallie

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
202-208-5397 desk
202-374-7694 cell
kallie_hanley@ios.doi.gov

From: Blair, Peter
To: "karnold@karnoldconsulting.com";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:29:31 AM

Dear Ken:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you.

Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Georg, Shanda
To: karnold@karnoldconsulting.com;
Subject: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Date: Friday, May 14, 2010 8:22:37 PM
Attachments: Deepwater SME Support SOW_FINAL.pdf
Peer Review - Consultant NonDisclosureAgtFINAL.pdf

Dear Mr. Arnold,

The department of Interior is interested in contracting with Ken Arnold Consulting, Inc. to obtain your expertise in the performance of a peer review of the Outer Continental Shelf Safety Oversight Board Report which will provide recommendations to the President of the United States Concerning the Deep Water event. This is a request for a Labor Hour Quote.

Attached is a statement of work for your consideration. Please provide a Firm Fixed price quote no later than Monday, 17th to me, at my email address: shanda.georg@aqd.nbc.gov.

I have also attached a non-disclosure form to be returned to me with the FFP quote. All documents are to be returned to the contracting officer.

This is a commercial acquisition, performed under Far Part 12 and in accordance with Far Part 13 Guidance.

FAR clauses 52.212-1; 52.212-2; 52.212-3; 52.212-4; and 52.212-5 apply.

Please reference RFQ Number N10PX18335 on your quote - The quote is to be submitted as a Labor Hour Quote.

If you have any questions, please put them in writing and send them to me and if I am unable to provide a response, I will forward to the program office for a response.

Should you need additional time please let me know. My contact information is below. I will be in the office on Saturday around 10:30 EST.

Best regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Georg, Shanda
To: Ken Arnold;
cc: Kemkar, Neal; Valltos, Katherine; McCarthy, Daniel;
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Date: Saturday, May 15, 2010 3:28:36 PM
Attachments: KArnoldConsultingPriceQuote.xls

Ken,
Thanks. I need a formal quote - just an hourly rate won't work for government contracting. I have attached an excel sheet - use this to submit your not to exceed price - that way we have a formal quote - and you don't have to do much as I have already provided a spread sheet to fill in the blanks. Please modify as you see fit. I believe Neal understands that the dates are not attainable. Will keep you posted on his comments to your email. Right now we don't have a formal contract, but can work that out on Wed with You when you are reachable.

Again, thanks for the response and please use the excel sheet as I need a formal quote.

Understood about the "K" in your company's name.

best regards, shanda

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We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: "Ken Arnold" <karnold@karnoldconsulting.com>
To: <shanda.georg@aqd.nbc.gov>
Cc: '"Kemkar, Neal"' <Neal_Kemkar@ios.doi.gov>
Date: 05/15/2010 03:16 PM
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support

---

Shanda

I am in agreement with the attached two documents with the exceptions listed below. Unfortunately there is no way I can attach an electronic signature and I will not have access to a fax for a few days. Neal has a signed copy of the disclosure form which was faxed to him yesterday.

Please note the following exceptions:

1. I cannot finish the review by May 16 as requested in the SOW. It will take me several days and perhaps as much as one week from receipt of the materials.

2. My charges will be in accordance with the attached rate sheet. For this project I will be the only one working on it and accordingly my hourly rate is $[redacted]

3. Please note the name of the company is K Arnold Consulting, Inc. and not Ken Arnold Consulting.

I can fax you the signature pages for both documents on Wednesday if that is OK.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: shanda.georg@aqd.nbc.gov [mailto:shanda.georg@aqd.nbc.gov]
Sent: Saturday, May 15, 2010 9:50 AM
To: Ken Arnold
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Importance: High

Neal,
My apologies. Please reconsider. - this request is on a labor hour basis - I miss-typed the info in two lines of the body of the letter, but the first sentence and last sentences were correct that indicated Labor Hour - it was a long day, however, if this had been issued as a ffp, it violates no rules - ffp is the preferred method of contracting for commercial items. I have attached the far site as an fyi for your comfort level: FAR 12.207. But again, due to the nature of the work, we are issuing this as a labor hour purchase order. Please let me know if you will provide a quote.

Revised and Corrected to indicate Labor Hour Quote May 15, 2010
Dear Mr. Arnold,

The department of Interior is interested in contracting with Ken Arnold Consulting, Inc. to obtain your expertise in the performance of a peer review of the Outer Continental Shelf Safety Oversight Board Report which will provide recommendations to the President of the United States Concerning the Deep Water event. This is a request for a Labor Hour Quote.

Attached is a statement of work for your consideration. Please provide a Labor Hour price quote no later than Monday, 17th to me, at my email address: shanda.georg@aqd.nbc.gov.

I have also attached a non-disclosure form to be returned to me with the Labor Hour quote. All documents are to be returned to the contracting officer.

This is a commercial acquisition, performed under Far Part 12 and in accordance with Far Part 13 Guidance.

FAR clauses 52.212-1; 52.212-2; 52.212-3; 52.212-4; and 52.212-5 apply.

Please reference RFQ Number N10PX18335 on your quote - The quote is to be submitted as a Labor Hour Quote.

If you have any questions, please put them in writing and send them to me and if I am unable to provide a response, I will forward to the program office for a response.

Should you need additional time please let me know. My contact information is below. I will be in the office on Saturday around 10:30 EST.

Best regards, shanda

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Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
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We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: "Ken Arnold" <karnold@karnoldconsulting.com>
To: <shanda.georg@aqd.nbc.gov>
Cc: '"Kemkar, Neal"' <Neal_Kemkar@ios.doi.gov>
Date: 05/14/2010 09:57 PM
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support

---

Shanda

Thank you for considering me for this very important and interesting assignment. However, I don't think it is appropriate to contract for professional engineering services on a fixed price basis. Indeed it may even violate Federal rules. Therefore, I must decline your kind offer to hire me.

Attached is a rate sheet for my services if you would like to reconsider.

For future reference please note the name of my company, K Arnold Consulting, Inc.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
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Importance: High

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We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey[attachment "KACI Ratesheet.doc" deleted by Shanda Georg/NBC/OS/DOI] [attachment "Deepwater SME Support SOW FINAL.pdf" deleted by Shanda Georg/NBC/OS/DOI] [attachment "Peer Review - Consultant NonDisclosureAgtFINAL.pdf" deleted by Shanda Georg/NBC/OS/DOI]

Request for Quote N10PX18335 / Deepwater Horizon Peer Review Support
K. Arnold Consulting, Inc.
15-May-10
Labor Hour Quote

# of Day		Date	Day of Month	Hours	Discounted Commerical Hourly Rate	Total
1	May	19	Wed	[redacted]		
2	May	20	Thurs			
3	May	21	Friday			
4	May	22	Sat			
5	May	23	Sun			
6	May	24	Mon			
7	May	25	Tues			
8	May	26	Wed			
9	May	27	Thurs			
10	May	28	Friday			
11	May	29	Sat			
12	May	30	Sun			
13	May	31	Mon (Memorial Day)			
		MAY Total				$21,600.00

	Grand Total HOURS	Grand Total $
Grand Total Labor Hour Price Quote:	[redacted]	**$24,800.00**

	Non-Discount Rate	Discount Rate	Savings	% Savings
Hourly Rate	[redacted]			0.00%
Total Hours	$24,800.00	$0.00	$ 24,800.00	

# of Day		Date	Day of Month	Hours	Discounted Commerical Hourly Rate	Total
14	June	1	Tues	[redacted]		
15	June	2	Wed			
16	June	3	Thurs			
17	June	4	Friday			
18	June	5	Sat			
19	June	6	Sun			
20	June	7	Mon			
21	June	8	Tues			
22	June	9	Wed			
23	June	10	Thurs			
24	June	11	Friday			
25	June	12	Sat			
26	June	13	Sun			
27	June	14	Mon			
28	June	15	Tues			
29	June	16	Wed			
30	June	17	Thurs			
31	June	18	Friday			
32	June	19	Sat			
33	June	20	Sun			
34	June	21	Mon			
35	June	22	Tues			
36	June	23	Wed			
37	June	24	Thurs			
38	June	25	Friday			
39	June	26	Sat			
40	June	27	Sun			
41	June	28	Mon			
42	June	29	Tues			
43	June	30	Wed			
		JUNE Total				$3,200.00

From: Georg, Shanda
To: karnold@karnoldconsulting.com;
cc: McCarthy, Daniel; Valltos, Katherine; Kemkar, Neal; Hanley, Kallie;
Subject: revised sow and other docs
Date: Monday, May 17, 2010 3:59:18 PM
Attachments: Deepwater SME Support SOW_Rev 1_May 17 2010 (Autosaved).pdf
ACH VENDOR-MISC PAYMENT ENROLLMENT FORM.docx

Hi Ken, base on your concerns, attached is a revised sow - which incorporates changes to the due dates and the format for the peer report was removed - format is of your choice . Please review, and if I don't receive further questions, I will move forward with the purchase order.

Task one is due May 28, 2010, as a Labor Hour
Task two based on your level of effort with be a Labor Hour, and the final date of performance will not exceed June 30, 2010 - in the event hours not used as estimated in your price quote.

I checked D&B, and K Arnold Consulting, Inc. is listed as having a D&B number, however I am unable to find the number. - need the D&B number to proceed. If the info I found on D&B is incorrect, you will need to register with D&B or I will be unable to proceed with purchase order - it will take a 5 minute phone call to obtain a number - and it is free. I will need the D&B number as soon as possible - I know you are out of town, but hoping you might know it or have it available quickly. 1-866-484-1058 or 1-866-415-0043

Also attached is the electronic payment for that must be completed and returned to me - this will allow K Arnold and Associates to be paid. My fax number is below, in the event you do not want to email the form. Please return this form when you return the purchase order.

If you have any questions, please contact me.

best regards, shanda

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June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From:	Georg, Shanda
To:	karnold@karnoldconsulting.com;
cc:	McCarthy, Daniel; Valltos, Katherine; Kemkar, Neal; Hanley, Kallie;
Subject:	revised sow and other docs
Date:	Monday, May 17, 2010 3:59:18 PM
Attachments:	Deepwater SME Support SOW_Rev 1_May 17 2010 (Autosaved).pdf ACH VENDOR-MISC PAYMENT ENROLLMENT FORM.docx

---

Hi Ken, base on your concerns, attached is a revised sow - which incorporates changes to the due dates and the format for the peer report was removed - format is of your choice . Please review, and if I don't receive further questions, I will move forward with the purchase order.

Task one is due May 28, 2010, as a Labor Hour
Task two based on your level of effort with be a Labor Hour, and the final date of performance will not exceed June 30, 2010 - in the event hours not used as estimated in your price quote.

I checked D&B, and K Arnold Consulting, Inc. is listed as having a D&B number, however I am unable to find the number. - need the D&B number to proceed. If the info I found on D&B is incorrect, you will need to register with D&B or I will be unable to proceed with purchase order - it will take a 5 minute phone call to obtain a number - and it is free. I will need the D&B number as soon as possible - I know you are out of town, but hoping you might know it or have it available quickly. 1-866-484-1058 or 1-866-415-0043

Also attached is the electronic payment for that must be completed and returned to me - this will allow K Arnold and Associates to be paid. My fax number is below, in the event you do not want to email the form. Please return this form when you return the purchase order.

If you have any questions, please contact me.

best regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
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From: Georg, Shanda
To: karnold@karnoldconsulting.com;
cc: McCarthy, Daniel; Hanley, Kallie; karnold@karnoldconsulting.com; Valltos, Katherine; Kemkar, Neal;
Subject: duns info - got it
Date: Monday, May 17, 2010 4:26:55 PM

---

ken - don't worry about duns - called D&B and got it...

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From: Shanda Georg/NBC/OS/DOI
To: karnold@karnoldconsulting.com
Cc: Daniel Mccarthy/NBC/OS/DOI@DOI, Katherine Valltos/NBC/OS/DOI@DOI, "Kemkar, Neal" <Neal_Kemkar@ios.doi.gov>, "Hanley, Kallie" <Kallie_Hanley@ios.doi.gov>
Date: 05/17/2010 03:59 PM
Subject: revised sow and other docs

Hi Ken, base on your concerns, attached is a revised sow - which incorporates changes to the due dates and the format for the peer report was removed - format is of your choice . Please review, and if I don't receive further questions, I will move forward with the purchase order.

Task one is due May 28, 2010, as a Labor Hour
Task two based on your level of effort with be a Labor Hour, and the final date of performance will not exceed June 30, 2010 - in the event hours not used as estimated in your price quote.

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[attachment "Deepwater SME Support SOW_Rev 1_May 17 2010 (Autosaved). pdf" deleted by Shanda Georg/NBC/OS/DOI]

[attachment "ACH VENDOR-MISC PAYMENT ENROLLMENT FORM.docx" deleted by Shanda Georg/NBC/OS/DOI]

If you have any questions, please contact me.

best regards, shanda

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We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Georg, Shanda
To: karnold@karnoldconsulting.com;
cc: Kemkar, Neal; Hanley, Kallie; Valltos, Katherine; McCarthy, Daniel;
Subject: N10PX18335 K Arnold Consulting Inc. - Contract for your review and signature
Date: Tuesday, May 18, 2010 5:06:38 PM
Attachments: 18335_KArnold.PDF

Hi Ken,
Attached is the commercial contract in support of the DOI Deepwater Horizon subject matter expert support. The period of performance is through June 30, 2010 - this period of performance allows you latitude in the event that the hours proposed are not used up front in support of the peer review.

The contract number is: N10PX18335

This is issued as a labor hour contract - with a not to exceed $24,800 ceiling - the contract is very specific and is only 7 pages - the sow is attached - no changed from May 17th, but included as attachment 1 - all terms and conditions remain unchanged.

Invoices (submitted your format) will be submitted through govpay - www.govpay.gov - very easy, and fast to get paid.

Please review the attached document - if acceptable, return page 1 - with your name printed and signature along with the date.

Next steps:

1. Sign/date and return and return the docs listed below to me and once I have them, I will sign the contract, and you are ready to go - as long as there are no open issues, but based on the emails, it appears all is well.
2. I will send you a fully executed document for your files, and then you may contact Neal Kemkar - he will be on the email, and know that you have received the package. The award is effective may 19, 2010.
3. If you have any questions, please do not histitate to contact me.
4. Please read the document - 7 pages - it is clear and you will find it is not legal jargon and easy to understand - bottom line, don't exceed the authorized ceiling of $24,800 - if you in anyway have a concern that you are being directed to do something outside of the scope of this contract, or above the ceiling please contact me - that is what I am here for - to keep us all on track.

To return to Contracting Officer:

1. The balance of paperwork to return with the 1st page of the contract is:
2. ACH form for electronic payment
3. Non-Disclosure/Conflict of interest form

best regards, shanda

Out of Office Schedule:
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From: Georg, Shanda
To: Hanley, Kallie; Kemkar, Neal; karnold@karnoldconsulting.com;
cc: Valltos, Katherine; McCarthy, Daniel; Archambeault, William; Nyce, John W;
Subject: K Arnold Consulting Inc. is now under contract
Date: Wednesday, May 19, 2010 10:18:16 AM

All -

The paper work is signed and K Arnold Consulting Inc. is now under contract with DOI to support Deepwater Horizon SME support effective today 5/19/2010 through June 30, 2010 up to a not to exceed Labor hour order of $24,800.00

DOI and Ken may now engage with each other.

The documents will be sent out shortly.

regards, shanda

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From: Georg, Shanda
To: karnold@karnoldconsulting.com;
cc: Hanley, Kallie; Kemkar, Neal;
Subject: Signed Docs attached for your records - Re: K Arnold Consulting Inc. is now under contract
Date: Wednesday, May 19, 2010 10:39:05 AM
Attachments: KArnold_nodisclosure_nonconflict statement.PDF
N10PX18335signedcontractK_Arnold.PDF

Copies of signed contract and non-disclosure/conflict of interest statement for your records.

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From: Shanda Georg/NBC/OS/DOI
To: "Hanley, Kallie" <Kallie_Hanley@ios.doi.gov>, "Kemkar, Neal" <Neal_Kemkar@ios.doi.gov>, karnold@karnoldconsulting.com
Cc: Katherine Valltos/NBC/OS/DOI@DOI, Daniel Mccarthy/NBC/OS/DOI@DOI, William R Archambeault/NBC/OS/DOI@DOI, John W Nyce/NBC/OS/DOI@DOI
Date: 05/19/2010 10:18 AM
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cc: Hanley, Kallie; Kemkar, Neal;
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From: Shanda Georg/NBC/OS/DOI
To: "Hanley, Kallie" <Kallie_Hanley@ios.doi.gov>, "Kemkar, Neal" <Neal_Kemkar@ios.doi.gov>, karnold@karnoldconsulting.com
Cc: Katherine Valltos/NBC/OS/DOI@DOI, Daniel Mccarthy/NBC/OS/DOI@DOI, William R Archambeault/NBC/OS/DOI@DOI, John W Nyce/NBC/OS/DOI@DOI
Date: 05/19/2010 10:18 AM
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From: Hanley, Kallie
To: Ken Arnold;
cc: Kemkar, Neal;
Date: Thursday, May 20, 2010 3:16:31 PM
Attachments: 100516 Candidate Recommendations, Per Holand.doc
100516 Candidate Recommendations Brett Comments v2.doc
Chenevert 100516 Candidate Recommendations.doc
100517 BAUGH Recommendations.doc
AOil Spill INAE.DOC
Juvkam-Wold Comments on Recommendations.doc

DRAFT - PREDICISIONAL CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION. MAY NOT BE DISCLOSED UNDER FOIA.

Ken

Please find comments from experts suggested by NAE Peer attached for your review.

Thank you,

Kallie

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Kemkar, Neal
To: Bob Bea;
Subject: RE: FINAL 30-DAY SAFETY REPORT
Date: Thursday, May 27, 2010 2:16:10 PM

Thanks Bob. We will be sending out a release within the hour to you.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Bob Bea [mailto:bea@ce.berkeley.edu]
Sent: Thursday, May 27, 2010 2:15 PM
To: Kemkar, Neal
Subject: Re: FINAL 30-DAY SAFETY REPORT

when does this report 'go public'. i would like to distribute to the members of our Deepwater Horizon Study Group ????....see attached summary of goals. we are ready to help as requested.

bob

Kemkar, Neal wrote:
Final report and transmittal letter are attached, with thanks from the Secretary and the whole team.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710

Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Kemkar, Neal
To: Benton Baugh; hans.juvkam-wold@pe.tamu.edu; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; "Chenevert, Martin E"; "Arnold Stancell";
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve; PBlair@nas.edu;
Subject: FINAL 30-DAY SAFETY REPORT
Date: Thursday, May 27, 2010 1:53:47 PM
Attachments: Interim Measures Report 100527 FINAL.pdf
30day report transmittal letter.pdf

Final report and transmittal letter are attached, with thanks from the Secretary and the whole team.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: bbaugh@radoil.com; Arnold Stancell;
cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie;
Subject: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow
Date: Thursday, May 27, 2010 12:49:32 AM

Benton and Arnie – would either or both of you like to participate in a quick "technical briefing" for reporters after we announce the 30-day safety report tomorrow at 3pm eastern? If so, please let our press secretary, Kendra Barkoff know by 10am eastern.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling

safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and

(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at 5pm eastern time on Monday, May 17, 2010. The call will last until approximately 6:30pm.

If you are willing and available to participate, please sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561 before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Kemkar, Neal; hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: FINAL DRAFT REPORT ATTACHED: U. S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Tuesday, May 25, 2010 9:30:26 AM
Attachments: Interim Measures Report 100525 nk FINAL.pdf

Please review the final draft copy of the 30-day report in advance of our 5pm eastern time call this evening.

Thank you.
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 21, 2010 4:08 PM
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; 'Chenevert, Martin E'; 'Arnold Stancell'
Cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve
Subject: MAY 25, 2010 5pm CALL: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report

Thank you for your earlier comments.

Please **HOLD Tuesday, May 25 from 5:00 to 6:30 eastern time** for a follow-up conversation.

Kallie Hanley will confirm the date and time and distribute meeting details in advance of the meeting.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Black, Steve

Sent: Sunday, May 16, 2010 10:16 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

CONFIDENTIAL DRAFT – PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA

Thank you for returning signed confidentiality and non-disclosure agreements. Further to Neal's message and request below, would you kindly review and be prepared to comment on the attached draft safety recommendations during the conference call tomorrow. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U. S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

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We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: "bea@ce.berkeley.edu";
Subject: Re: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures
Date: Saturday, May 22, 2010 5:20:20 PM

Thanks Bob. Talk soon.

----- Original Message -----
From: Bob Bea <bea@ce.berkeley.edu>
To: Kemkar, Neal
Sent: Sat May 22 16:59:11 2010
Subject: Re: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures

apology for system failure.

latest version attached.

background attached.

bob

Kemkar, Neal wrote:
> Actually the attachment did not come through. Please resend.
>
>
> ----- Original Message -----
> From: Robert Bea <bea@ce.berkeley.edu>
> To: Kemkar, Neal; Hanley, Kallie
> Sent: Wed May 19 06:42:00 2010
> Subject: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures
>
> attached as you requested is summary of my preliminary findings and
> thoughts about the Deepwater Horizon failures and recommendations for
> the future continuation of this important activity.
>
> thank you for the opportunity to help with this important project.
>
> bob
>

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710

Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Kemkar, Neal
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: MAY 25, 2010 5pm CALL: U. S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Friday, May 21, 2010 4:07:51 PM

Thank you for your earlier comments.

Please **HOLD Tuesday, May 25 from 5:00 to 6:30 eastern time** for a follow-up conversation.

Kallie Hanley will confirm the date and time and distribute meeting details in advance of the meeting.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Black, Steve
Sent: Sunday, May 16, 2010 10:16 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

CONFIDENTIAL DRAFT – PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA

Thank you for returning signed confidentiality and non-disclosure agreements. Further to Neal's message and request below, would you kindly review and be prepared to comment on the attached draft safety recommendations during the conference call tomorrow. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Per Holand; Black, Steve;
cc: Hanley, Kallie;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Thursday, May 20, 2010 4:17:09 PM

Thanks for your follow up Per.

If you follow your proposed route, please do disclose to BP the fact of your involvement with our 30-day safety report but do not disclose any confidential communications or documents that you have or will receive from Interior.

I know your expertise is in high demand so thanks for your understanding about our need to run checks here. And again, thank you for your help with his project.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Per Holand [mailto:Per.Holand@exprosoft.com]
Sent: Thursday, May 20, 2010 4:08 PM
To: Kemkar, Neal; Black, Steve
Cc: Hanley, Kallie
Subject: SV: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I promised BP an answer today.

I plan to say that I would be pleased to particpate in their investigation team, but I cannot join it before May 31.

Then your report should be public and my Peer Review obligation finished, so I assume that it will not cause any problems.

Best regards Per

Fra: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sendt: on 19/05/2010 21:10
Til: Per Holand; Black, Steve
Kopi: Hanley, Kallie
Emne: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Per – thanks for checking. Before you accept, please allow us some time to consider this question with

appropriate counsel and get back to you quickly.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Per Holand [mailto:Per.Holand@exprosoft.com]
Sent: Wednesday, May 19, 2010 3:08 PM
To: Black, Steve; Kemkar, Neal
Cc: Hanley, Kallie
Subject: SV: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Steve, Neal

I have been requested by BP to support them in their investigation related to MC252/Deepwater Horizon incident. I would like to accept that. Is that OK for you?

I will of cause not mention that I have been involved with you before May 28.

Per

Fra: Black, Steve [mailto:steve_black@ios.doi.gov]
Sendt: ti 18/05/2010 14:46
Til: Per Holand; Kemkar, Neal
Kopi: Hanley, Kallie
Emne: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Per, thank you very much for your prompt reply and helpful comments.

Steve

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Tue May 18 08:24:50 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

Please find enclosed your document modified by me with track changes.

I have only commented on the BOP issues. I have deleted some of your proposed actions that I found not be practical and I have added some new and modified some.

I hope that you find my comments useful.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 18:12
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Thanks Per. Glad you can make the call--sorry for the late hour in your time zone. Look forward to speaking on Monday.

Neal

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

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Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

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From: Kemkar, Neal
To: Per Holand; Black, Steve;
cc: Hanley, Kallie;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Wednesday, May 19, 2010 3:10:06 PM

Per – thanks for checking. Before you accept, please allow us some time to consider this question with appropriate counsel and get back to you quickly.

Neal

Neal Kemkar
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(202) 208-5379

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Sent: 15. mai 2010 18:12
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

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Sent: 15. mai 2010 01:54
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Best,
Neal

From: Kemkar, Neal
To: "bea@ce.berkeley.edu"; Hanley, Kallie;
Subject: Re: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures
Date: Wednesday, May 19, 2010 9:15:43 AM

Actually the attachment did not come through. Please resend.

----- Original Message -----
From: Robert Bea <bea@ce.berkeley.edu>
To: Kemkar, Neal; Hanley, Kallie
Sent: Wed May 19 06:42:00 2010
Subject: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures

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thank you for the opportunity to help with this important project.

bob
--
Professor Robert Bea, PhD, PE
Center for Catastrophic Risk Management
Department of Civil & Environmental Engineering
212 McLaughlin Hall
Berkeley, CA 94720-1710
(510) 642-0967
(510) 643-8919 (fax)
Email: Bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, CA 94556
925 631-1587 (phone & fax)
(925) 699-3503 (cell phone)
Email: BeaRAMS@[redacted]

From: Kemkar, Neal
To: "bea@ce.berkeley.edu"; Hanley, Kallie;
Subject: Re: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures
Date: Wednesday, May 19, 2010 9:14:36 AM

Many thanks Bob. We look forward to reviewing.

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To: Kemkar, Neal; Hanley, Kallie
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Center for Catastrophic Risk Management
Department of Civil & Environmental Engineering
212 McLaughlin Hall
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(510) 642-0967
(510) 643-8919 (fax)
Email: Bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, CA 94556
925 631-1587 (phone & fax)
(925) 699-3503 (cell phone)
Email: BeaRAMS@[redacted]

From: Kemkar, Neal
To: "acstancell@[redacted]
cc: Black, Steve;
Subject: Re: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA
Date: Wednesday, May 19, 2010 9:13:29 AM

Many thanks Arnie. We look forward to reviewing.

From: Arnold Stancell <acstancell@[redacted]>
To: Kemkar, Neal
Sent: Wed May 19 08:20:08 2010
Subject: Re: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA

Neal,

Please see my comments attached. Nice meeting you over the phone.

Best regards,
Arnie

----- Original Message -----
From: Kemkar, Neal
To: hans.juvkam-wold@pe.tamu.edu ; bbaugh@radoil.com ; FBrett@Petroskills.com ; bea@ce.berkeley.edu ; per.holand@exprosoft.com ; Chenevert, Martin E ; Arnold Stancell
Cc: Hanley, Kallie ; Black, Steve ; Ishee, Mary Katherine
Sent: Monday, May 17, 2010 2:42 PM
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA

NAE Peer Review Panel Call with DOI 5.17.10
AGENDA

I. Introductions
   a. DOI introductions
   b. NAE Panelist Introductions

II. Overview of NAE Peer Review Panel task

III. Walk through document to be reviewed

IV. Questions from NAE Panel on document

V. Discussion on document

VI. Next steps : Panelists each submit comments on document to DOI by 9am on 5.19.10

Neal Kemkar
Office of the Secretary

U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
Sent: Sunday, May 16, 2010 2:52 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Kemkar, Neal
Subject: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern

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Call in number:[redacted]
Participant Access Code:[redacted]

Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Kemkar, Neal
To: Benton Baugh;
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA
Date: Tuesday, May 18, 2010 10:52:23 PM

Thanks Benton. We look forward to reviewing.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Benton Baugh [mailto:bbaugh@radoil.com]
Sent: Tuesday, May 18, 2010 10:52 PM
To: Kemkar, Neal
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA

My comments are attached.

Regards,

Benton F. Baugh, Ph.D., P.E., NAE

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

The information contained in this e-mail may contain confidential or privileged mater and is intended only for the stated addressee(s). Ifyou are not a valid addressee, the use, disclosure, copying or distribution of this information is prohibited and may be unlawful. If you have received this message in error, please notify the sender immediately and delete all copies of the message from your computer.

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Monday, May 17, 2010 1:43 PM
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; per.holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell
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Call in number: [redacted]
Participant Access Code: [redacted]

Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Kemkar, Neal
To: Ford Brett; Black, Steve;
cc: Ishee, Mary Katherine; Hanley, Kallie;
Subject: RE: Brett Comments: U. S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Tuesday, May 18, 2010 1:10:08 PM

Thanks Ford. You understood correctly that your comments are to come directly to the Department of the Interior. We have received your comments and look forward to reviewing.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Tuesday, May 18, 2010 1:11 PM
To: Kemkar, Neal; Black, Steve
Cc: Ishee, Mary Katherine; Hanley, Kallie
Subject: Brett Comments: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal and Steve –

As I understand my instructions, I was NOT to send to other 'discussants'.

Attached are my Suggested Revisions (should be in purple), and my "Editorial Comments" *(shown in purple parenthetical italics)* – to explaining my thinking. These comments may be helpful in combining with other 'discussants'. Besides edits to the current recommendations, I've added unique ideas, and have highlighted the purple edits in yellow.

I've included a one page general comment at the bottom of the document, that explains my approach to the '30 day effort' as I understand it.

One comment that I didn't include: I'd say who(m?) ever came up with this original did a pretty good job to start with. I hope my contribution helps.

I'm at DC time + 6hrs – call any time at 918-408-9516 if I can be helpful, (or email fbrett@petroskills.com).

Thank you for your efforts. Please let me know if I can be of further assistance.

Sincerely,

Ford Brett
President
PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) [redacted] *(works in most of world)*
Skype Ford.Brett
or call Rozanne at [redacted]

www.PetroSkills.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM

To: 'acstancell@msn.com'; 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; Ford Brett; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **Spm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; per.holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Hanley, Kallie; Black, Steve; Ishee, Mary Katherine;
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA
Date: Monday, May 17, 2010 2:42:55 PM

NAE Peer Review Panel Call with DOI 5.17.10
AGENDA

I. Introductions
   a. DOI introductions
   b. NAE Panelist Introductions

II. Overview of NAE Peer Review Panel task

III. Walk through document to be reviewed

IV. Questions from NAE Panel on document

V. Discussion on document

VI. Next steps : Panelists each submit comments on document to DOI by 9am on 5.19.10

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
Sent: Sunday, May 16, 2010 2:52 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Kemkar, Neal
Subject: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern

Thank you for agreeing to participate in the NAE Peer Review Panel. We would like to convene the panel for a call tomorrow, Monday, May 17th at 5pm Eastern. Please use the following conference call number:

Call in number: [redacted]
Participant Access Code: [redacted]

Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Kemkar, Neal
To: Arnold Stancell;
cc: Hanley, Kallie; Black, Steve;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Monday, May 17, 2010 1:16:44 PM

Thanks – we received your agreement and look forward to your participation this afternoon. Kallie will send you meeting details and documents in short order.

From: Arnold Stancell [mailto:acstancell@[redacted]
Sent: Monday, May 17, 2010 12:59 PM
To: Kemkar, Neal
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal,

I was away, just returned. I have signed and faxed the confidentiality agreement to 202-208-4561. I will participate in the 5 pm EST call today.

Best regards,
Arnold

> ----- Original Message -----
> From: Kemkar, Neal
> To: 'acstancell@[redacted]
> Cc: Hanley, Kallie
> Sent: Sunday, May 16, 2010 2:31 PM
> Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
>
> Dr. Stancell – we have not heard from you yet. I just left you a voicemail along these same lines but to confirm your participation in this review, please (1) review the attached confidentiality agreement and return to this email or to fax number 1-202-208-4561 and (2) confirm your ability to participate in a 5pm eastern time call on Monday.
>
> Many thanks,
> Neal
>
> **Neal Kemkar**
>
> **Neal Kemkar**
> Office of the Secretary
> U.S. Department of the Interior
> (202) 208-5379
>
> ---
>
> **From:** Kemkar, Neal
> **Sent:** Friday, May 14, 2010 7:50 PM
> **To:** 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.

com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; 'pblair@nas.edu'
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: "acstancell@[redacted]
cc: Hanley, Kallie;
Subject: FW: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 2:31:48 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

Dr. Stancell – we have not heard from you yet. I just left you a voicemail along these same lines but to confirm your participation in this review, please (1) review the attached confidentiality agreement and return to this email or to fax number 1-202-208-4561 and (2) confirm your ability to participate in a 5pm eastern time call on Monday.

Many thanks,
Neal

Neal Kemkar

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; 'pblair@nas.edu'
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: "mechenevert@mail.utexas.edu";
cc: Hanley, Kallie;
Subject: FW: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 2:30:33 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

Dr. Chenevert – we have not heard from you yet. I just left you a voicemail along these same lines but to confirm your participation in this review, please (1) review the attached confidentiality agreement and return to this email or to fax number 1-202-208-4561 and confirm your ability to participate in a 5pm eastern time call on Monday.

Many thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]'; 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; 'pblair@nas.edu'
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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17, 2010. The call will last until approximately 6:30pm.

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Benton Baugh;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 2:19:15 PM

It is adequate. Thanks Benton. We will be in touch shortly with specifics of tomorrow's call.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Benton Baugh [mailto:bbaugh@radoil.com]
Sent: Saturday, May 15, 2010 12:55 PM
To: Kemkar, Neal; acstancell@[redacted]; hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; mechenevert@mail.utexas.edu; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal: Let me know if this is adequate.

Regards,

Benton F. Baugh
Radoil, Inc.
ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

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From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM

To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Ford Brett;
cc: Hanley, Kallie;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 1:17:23 PM

I received the fax. We will send a call-in number later today.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Friday, May 14, 2010 9:45 PM
To: Kemkar, Neal
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal –

I've signed the agreement and faxed it to you. The fax seemed to go thru from my end. Let me know if there was a problem.

Also, please let me know the number for the conference call.

In my work with the current National Academy of Engineering MMS offshore inspection improvement project, I have disclosed possible or perceived conflicts. Briefly, my company (PetroSkills) offers some 200 technical courses in >1000 different sessions in the area of petroleum technology. The MMS and BP send participants to these courses. In 2009 the MMS accounted for 0.4% of our participants, and BP accounted for ~6% of our participants. BP and Chevron, however, have their own 'drilling training alliance' and do not materially participate in our drilling training programs. I'll be happy to provide more information if you would like.

Thank you for the opportunity to help on this matter, and I will do my best to help.

Sincerely,

Ford Brett
PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) [redacted] *(works in most of world)*
Skype Ford.Brett
or call Rozanne at [redacted]

www.PetroSkills.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM
To: 'acstancell@[redacted]; 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; Ford Brett; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Importance: High

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: "bea@ce.berkeley.edu";
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 3:32:43 PM

Thanks. Unable to schedule for wednesday or friday now but an in person mtg could be helpful. Let's be in touch after Mondays call.

From: Bob Bea <bea@ce.berkeley.edu>
To: Kemkar, Neal
Sent: Sat May 15 15:25:28 2010
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

all clear.

i will send the form in a few minutes.

i will do all i can to help with this project. i have assembled a summary of the key elements i think could help advance this important opportunity. i will bring the summary with me to Washington next week.

i will be available to meet with the group on Wednesday or Friday.

if you would like to have me meet with members of the team on Wednesday or Friday, please let me know - if possible sometime today. i am trying to organize my schedule while i am in Washington.

thanks for your help.

Bob Bea

Kemkar, Neal wrote:

> Thanks Bob. The spirit of the confidentiality agreement is to ensure the integrity of your involvement. You may inform/disclose to your university so long as they do not, in turn, publicly announce your involvement until after publication of the report. Thanks for understanding.
>
> Please do join the call when you can on Monday. Safe travels.
>
> ---
>
> **From**: Bob Bea <bea@ce.berkeley.edu>
> **To**: Kemkar, Neal
> **Cc**: 'acstancell@[redacted] <acstancell@msn.com>; 'hans.juvkam-wold@pe.tamu.edu' <hans.juvkam-wold@pe.tamu.edu>; 'per.holland@sintef.no' <per.holland@sintef.no>; 'bbaugh@radoil.com' <bbaugh@radoil.com>; 'mechenevert@mail.utexas.edu' <mechenevert@mail.utexas.edu>; 'FBrett@Petroskills.com' <FBrett@Petroskills.com>; Black, Steve; Hanley, Kallie; pblair@nas.edu <pblair@nas.edu>
> **Sent**: Fri May 14 20:32:08 2010
> **Subject**: Re: U.S. Department of Interior Peer Review Request for Offshore Energy

Development Safety Report (Time-Sensitive)

Happy Friday Evening Neal (and others),

i will arrive at Kennedy airport at 4:09 PM EST. i do not think i can travel from the airport to my hotel and be checked in (Embassy Suites, 900 10 th Street NW) by the time of the conference call. given that we can address my concerns regarding the non-disclosure agreement (see below), i will connect with the conference call as soon as i can from the hotel.

i will be in Washington from Monday evening through Thursday evening. i have a meeting scheduled for Tuesday. i have tentative meetings scheduled for Thursday (the Thursday PM meeting can be rescheduled). i have reserved a part of Wednesday to be service to this committee - if you want.

please let me know if you would like to meet with me - the day, time, and place.

i have scanned the non-disclosure agreement. The agreement requires that "his or her role in it is confidential." Given my understanding of my employment contract with the University of California, i think this clause could be a problem (public university).

tomorrow morning, i will carefully review the non-disclosure agreement. if i think there could be a problem, i will have to have the University Counsel review the agreement before i can sign it.

as i said earlier, i will depart California early Monday morning (8 AM). given that it is now the end of semester commencement weekend, i do not think that it will be possible for me to have the University Counsel review the agreement and revert their opinion by the deadline you have specified below.

given this situation, how do you suggest i proceed ?

i truly want to assist this effort in any way that i can.

sincerely,

Bob Bea

Kemkar, Neal wrote:

> As you heard from Dr. Peter Blair of the National Academies earlier this week, the U. S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.
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> I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

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> <!--[if !supportLists]-->(1) <!--[endif]-->discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and <!--[if !supportLists]-->(2) <!--[endif]-->to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

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We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556

Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS[redacted]

--

Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
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Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Kemkar, Neal
To: "bea@ce.berkeley.edu";
cc: Hanley, Kallie; Black, Steve;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 3:18:46 PM

Thanks Bob. The spirit of the confidentiality agreement is to ensure the integrity of your involvement. You may inform/disclose to your university so long as they do not, in turn, publicly announce your involvement until after publication of the report. Thanks for understanding.

Please do join the call when you can on Monday. Safe travels.

From: Bob Bea <bea@ce.berkeley.edu>
To: Kemkar, Neal
Cc: 'acstancell@[redacted]' <acstancell@msn.com>; 'hans.juvkam-wold@pe.tamu.edu' <hans.juvkam-wold@pe.tamu.edu>; 'per.holland@sintef.no' <per.holland@sintef.no>; 'bbaugh@radoil.com' <bbaugh@radoil.com>; 'mechenevert@mail.utexas.edu' <mechenevert@mail.utexas.edu>; 'FBrett@Petroskills.com' <FBrett@Petroskills.com>; Black, Steve; Hanley, Kallie; pblair@nas.edu <pblair@nas.edu>
Sent: Fri May 14 20:32:08 2010
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Happy Friday Evening Neal (and others),

i will arrive at Kennedy airport at 4:09 PM EST. i do not think i can travel from the airport to my hotel and be checked in (Embassy Suites, 900 10 th Street NW) by the time of the conference call. given that we can address my concerns regarding the non-disclosure agreement (see below), i will connect with the conference call as soon as i can from the hotel.

i will be in Washington from Monday evening through Thursday evening. i have a meeting scheduled for Tuesday. i have tentative meetings scheduled for Thursday (the Thursday PM meeting can be rescheduled). i have reserved a part of Wednesday to be service to this committee - if you want.

please let me know if you would like to meet with me - the day, time, and place.

i have scanned the non-disclosure agreement. The agreement requires that "his or her role in it is confidential." Given my understanding of my employment contract with the University of California, i think this clause could be a problem (public university).

tomorrow morning, i will carefully review the non-disclosure agreement. if i think there could be a problem, i will have to have the University Counsel review the agreement before i can sign it.

as i said earlier, i will depart California early Monday morning (8 AM). given that it is now the end of semester commencement weekend, i do not think that it will be possible for me to have the University Counsel review the agreement and revert their opinion by the deadline you have specified below.

given this situation, how do you suggest i proceed ?

i truly want to assist this effort in any way that i can.

sincerely,

Bob Bea

Kemkar, Neal wrote:

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

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<!--[if !supportLists]-->(2) <!--[endif]-->to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report.
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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--

Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: [redacted]

From: Kemkar, Neal
To: "Per.Holand@exprosoft.com";
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 12:12:23 PM

Please try not to be quoted in any press until we publish the paper. Thanks.

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Sent: Sat May 15 06:40:25 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Another question

I have been contacted by many journalists in the past two weeks, mostly American, and I have answered their questions related to the BOP studies I carried out for MMS 10 years ago.

Should I stop answering such questions, or can I continue with that?

Best regards

Per

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and

technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

From: Kemkar, Neal
To: "Per.Holand@exprosoft.com";
cc: Hanley, Kallie; Black, Steve;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 12:11:32 PM

Thanks Per. Glad you can make the call--sorry for the late hour in your time zone. Look forward to speaking on Monday.

Neal

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: [redacted]
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

From: Kemkar, Neal
To: per.holand@exprosoft.com;
cc: Hanley, Kallie; Black, Steve;
Subject: FW: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Friday, May 14, 2010 7:54:02 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
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Office of the Secretary
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If you have any questions, please feel free to contact me directly on this email.

Best,

Neal

From: Black, Steve
To: karnold@karnoldconsulting.com;
Subject: Question
Date: Wednesday, May 26, 2010 8:28:07 PM

Ken, good evening. Do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Black, Steve
To: karnold@karnoldconsulting.com;
Subject: RE: Question
Date: Wednesday, May 26, 2010 8:47:49 PM

Thanks Ken. We are checking with Lars and others at MMS as well. I appreciate the quick reply.

Best,

Steve

From: karnold@karnoldconsulting.com [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, May 26, 2010 8:43 PM
To: Black, Steve
Subject: Re: Question

I do not know. Would you like me to call around tomorrow. I am sure the MMS knows.

Sent via BlackBerry by AT&T

From: "Black, Steve" <steve_black@ios.doi.gov>
Date: Wed, 26 May 2010 20:28:06 -0400
To: karnold@karnoldconsulting.com<karnold@karnoldconsulting.com>
Subject: Question

Ken, good evening. Do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123

Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
To: karnold@karnoldconsulting.com;
cc: Black, Steve; Hanley, Kallie;
Ishee, Mary Katherine;
Subject: Thank you Ken and further engagement
Date: Tuesday, May 11, 2010 6:35:18 PM

Ken – thanks again for sharing your thoughts with us on the phone. Very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at your office number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Blair, Peter
To: "karnold@karnoldconsulting.com";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:29:31 AM

Dear Ken:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you.

Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve; Hanley, Kallie;
Subject: RE: Thank you Ken and further engagement
Date: Friday, May 14, 2010 7:15:56 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

Thanks Ken – good to talk to you. Looking forward to our collaboration.

As discussed, please review and return the attached non disclosure agreement.
My return fax number is 202.208.4561

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Friday, May 14, 2010 6:20 PM
To: Kemkar, Neal
Subject: RE: Thank you Ken and further engagement

As discussed

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 12, 2010 6:10 PM
To: Ken Arnold
Subject: RE: Thank you Ken and further engagement

Thanks Ken. Steve was in Houston today and we are scheduled to discuss this tomorrow. I will get back in touch.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, May 12, 2010 7:06 PM
To: Kemkar, Neal
Subject: RE: Thank you Ken and further engagement

Neal

I left a phone message last night. I can be reached on my cell phone if you need me.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 5:35 PM
To: karnold@karnoldconsulting.com
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Ken and further engagement

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Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve;
Subject: CONFIDENTIAL 30-Day Safety Report Documents for Ken Arnold
Date: Tuesday, May 18, 2010 2:23:38 PM
Attachments: DRAFT JITF Recommendations.pdf
65-2_e1.pdf
IADC HSE Case Guidelines-MODU Offshore.pdf
100516 Candidate Recommendations.doc

DRAFT – PREDECISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
These documents may not be disclosed under FOIA

Ken –

Thank you for returning signed confidentiality and non-disclosure agreements. These documents are covered by that agreement.

Further to our conversation and request below, kindly review and be prepared to comment on the attached draft safety recommendations. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

In addition, please see the attached draft recommendations from the API task forces. Please do not distribute without permission from API.

Also included for reference are IADC safety case in full, and the draft API report (Isolating Potential Flow Zones During Well Construction API RECOMMENDED PRACTICE 65—PART 2 FIRST EDITION, MAY 2010) that Steve mentioned on this morning's call.

Please contact one of us if you have any questions. Thanks for your assistance.

Neal

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve;
Subject: RE: CONFIDENTIAL 30-Day Safety Report Documents for Ken Arnold
Date: Tuesday, May 18, 2010 4:14:04 PM
Attachments: API comparison of safety case bridging document to the well construction interfacing document.doc

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DRAFT – PREDECISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
These documents may not be disclosed under FOIA

Ken –

As promised, attached is more language from API on the safety case bridging document comparison to the other document they propose, which they call a "well construction interfacing document." For cross reference, there is a good visual document explaining this document on page 7 of the API document we send you earlier this afternoon.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Tuesday, May 18, 2010 2:24 PM
To: 'Ken Arnold'
Cc: Black, Steve
Subject: CONFIDENTIAL 30-Day Safety Report Documents for Ken Arnold
Importance: High

DRAFT – PREDECISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
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Please contact one of us if you have any questions. Thanks for your assistance.

Neal

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve; Ishee, Mary Katherine;
Subject: Latest Copy of SEMS rule for your review
Date: Thursday, May 20, 2010 5:40:07 PM
Attachments: AD15 Final Rule 5-18-10 (WC merge).doc

CONFIDENTIAL/ DO NOT FORWARD

Ken – As discussed, please review the latest copy of the SEMS rule we will propose.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Ken Arnold;
cc: Black, Steve; Ishee, Mary Katherine; Hanley, Kallie;
Subject: FINAL 30-DAY SAFETY REPORT
Date: Thursday, May 27, 2010 1:55:26 PM
Attachments: Interim Measures Report 100527 FINAL.pdf
30day report transmittal letter.pdf

Ken – Final report and transmittal letter are attached, with thanks from the Secretary and the whole team. We will be in touch shortly about next steps.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: "acstancell@[redacted]"; "hans.juvkam-wold@pe.tamu.edu"; "per.holland@sintef.no"; "bbaugh@radoil.com"; "mechenevert@mail.utexas.edu"; "FBrett@Petroskills.com"; "bea@ce.berkeley.edu";
cc: Black, Steve; Hanley, Kallie; pblair@nas.edu;
Subject: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Friday, May 14, 2010 7:50:07 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
To: Ford Brett;
cc: Barkoff, Kendra; Kemkar, Neal;
Subject: RE: Invite to Be an Expert at DOI Technical Briefing -- 3pm eastern today
Date: Thursday, May 27, 2010 10:50:52 AM

Fantastic! Kendra will be in touch with details. Thank you Ford!

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Thursday, May 27, 2010 10:53 AM
To: Hanley, Kallie
Cc: Barkoff, Kendra
Subject: Re: Invite to Be an Expert at DOI Technical Briefing -- 3pm eastern today

I'll be happy to participate.

Ford Brett

(m) +1 918 408 9516

On May 27, 2010, at 9:48 AM, "Hanley, Kallie" <Kallie_Hanley@ios.doi.gov> wrote:

> Ford
>
> Would you like to participate in a quick "technical briefing" for reporters after we announce the 30-day safety report today at 3pm eastern? If so, please confirm with me and our press secretary, Kendra Barkoff ASAP.
>
> Thank you,
>
> Kallie Hanley
> Office of the White House Liaison
> The U.S. Department of the Interior

desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Barkoff, Kendra
To: Benton Baugh; Kemkar, Neal; "Arnold Stancell";
cc: Black, Steve; Hanley, Kallie;
Subject: RE: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow
Date: Thursday, May 27, 2010 8:07:46 AM

Thanks Benton,
Lets see if someone who is in the country can do it. Worse comes to worse, we can cal always get you a number.
Kendra

From: Benton Baugh [mailto:bbaugh@radoil.com]
Sent: Thursday, May 27, 2010 2:12 AM
To: Kemkar, Neal; 'Arnold Stancell'
Cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie
Subject: RE: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow

I am willing but unsure if I can be of much help. I am on a cruise ship on the inside passage west of Canada and am not sure of the phone connections.

If you give me a number I will call in and try.

Benton

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 26, 2010 9:50 PM
To: bbaugh@radoil.com; Arnold Stancell
Cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie
Subject: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow

Benton and Arnie – would either or both of you like to participate in a quick "technical briefing" for reporters after we announce the 30-day safety report tomorrow at 3pm eastern? If so, please let our press secretary, Kendra Barkoff know by 10am eastern.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior

(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]'; 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

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Neal

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Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

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To: Kemkar, Neal; "Arnold Stancell";
cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie;
Subject: RE: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow
Date: Thursday, May 27, 2010 2:12:52 AM

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Benton

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 26, 2010 9:50 PM
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Cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie
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Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]'; 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu

Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Per Holand
To: Black, Steve; hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh;
cc: Kemkar, Neal; Hanley, Kallie;
Subject: RE: Question re BOP stacks
Date: Thursday, May 27, 2010 2:11:52 AM

Goodmorning.

Offshore Magazine each year publish a Worldwide survey of deepwater drilling rigs (Operational for > than 4000 feet). In this survey the number of rams for each rig is listed. The survey is on a big sheet that I cannot scan and send. On the sheet it is stated that it may be downloaded from www.offshore-mag.com, alternatively you may request a copy through E-mail to posters@pennwell.com.

I have quickly gone through the 2008 version of this overview. The number of rams in each BOP was distributed as follows

	No of rigs with number of rams				
Rig type	3 rams	4 rams	5 rams	6 rams	7 rams
Dynamically positioned		26	30	21	1
Conventionally mored	1	34	8	1	

You can assume that most BOPs with 4 rams have one shear blind ram. BOPs with 5 rams may have one or two shear blind rams. BOPs with 6 rams should normally have two blind shear rams. Most rigs from after built after 2000 have 5 or more rams.

This is the worldwide data. I do not know how it is in the US GoM.

For the study I completed in 1999 that was based on 1996/1997 drilling, that should represent the deepwater (> 1000 feet) rigs in US GoM that time 1 of the 26 rigs had two blind shear rams. This BOP had four rams. One of the BOPs had five rams , but only one blind shear ram.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: 27. mai 2010 02:36
To: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh
Cc: Kemkar, Neal; Hanley, Kallie
Subject: Question re BOP stacks

Good evening: I don't remember if one of us asked you this question. In connection with our proposed recommendation I.4, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Black, Steve
To: Ford Brett;
cc: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh; Kemkar, Neal; Hanley, Kallie;
Subject: RE: Question re BOP stacks
Date: Wednesday, May 26, 2010 9:32:47 PM

Thank Ford. I'll check w/ MMS in the morning. Thanks very much for the quick reply.

Steve

From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Wednesday, May 26, 2010 9:02 PM
To: Ford Brett
Cc: Black, Steve; hans.juvkam-wold@pe.tamu.edu; Bob Bea; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh; Kemkar, Neal; Hanley, Kallie
Subject: More: Question re BOP stacks

[redacted]

Ford Brett

(m) +1 918 408 9516

On May 26, 2010, at 7:55 PM, "Ford Brett" <FBrett@PetroSkills.com> wrote:

Steve

[redacted]

The question is answerable in about 2 hrs tomorrow AM. I you'd like me to run this down please let me know.

Ford Brett

(m) +1 918 408 9516

On May 26, 2010, at 7:36 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

> Good evening: I don't remember if one of us asked you this question. In connection with our proposed recommendation I.4, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?
>
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> Steve
>
> Steve Black
> Counselor to the Secretary
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> 1849 C Street, N.W., MS 7229
> Washington, D.C. 20240
> Phone: 202-208-4123
> Fax: 202-208-4561
> e-mail: steve_black@ios.doi.gov

From: Ford Brett
To: Ford Brett;
cc: Black, Steve; hans.juvkam-wold@pe.tamu.edu; Bob Bea; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh; Kemkar, Neal; Hanley, Kallie;
Subject: More: Question re BOP stacks
Date: Wednesday, May 26, 2010 9:00:01 PM

[redacted]

Ford Brett

(m) +1 918 408 9516

On May 26, 2010, at 7:55 PM, "Ford Brett" <FBrett@PetroSkills.com> wrote:

Steve

[redacted]

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Ford Brett

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Steve

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Counselor to the Secretary

U.S. Department of the Interior

1849 C Street, N.W., MS 7229

Washington, D.C. 20240

Phone: 202-208-4123

Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

From: Ford Brett
To: Black, Steve;
cc: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh; Kemkar, Neal; Hanley, Kallie;
Subject: Re: Question re BOP stacks
Date: Wednesday, May 26, 2010 8:55:19 PM

Steve

[redacted]

The question is answerable in about 2 hrs tomorrow AM. I you'd like me to run this down please let me know.

Ford Brett

(m) +1 918 408 9516

On May 26, 2010, at 7:36 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

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Steve

Steve Black

Counselor to the Secretary

U.S. Department of the Interior

1849 C Street, N.W., MS 7229

Washington, D.C. 20240

Phone: 202-208-4123

Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

From: Black, Steve
To: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh;
cc: Kemkar, Neal; Hanley, Kallie;
Subject: Question re BOP stacks
Date: Wednesday, May 26, 2010 8:36:06 PM

Good evening: I don't remember if one of us asked you this question. In connection with our proposed recommendation I.4, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From:	Benton Baugh
To:	Kemkar, Neal; hans.juvkam-wold@pe.tamu.edu; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; "Chenevert, Martin E"; "Arnold Stancell";
cc:	Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject:	RE: FINAL DRAFT REPORT ATTACHED: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date:	Tuesday, May 25, 2010 8:43:46 PM
Attachments:	BAUGH COMMENTS MAY 25.doc

Regards,

Benton F. Baugh

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

The information contained in this e-mail may contain confidential or privileged mater and is intended only for the stated addressee(s). Ifyou are not a valid addressee, the use, disclosure, copying or distribution of this information is prohibited and may be unlawful. If you have received this message in error, please notify the sender immediately and delete all copies of the message from your computer.

From: Hanley, Kallie
To: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh;
cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece;
Subject: Call today with Interior
Date: Tuesday, May 25, 2010 10:38:18 AM
Attachments: Interim Measures Report 100525 nk FINAL.PDF

Good Morning

Please confirm that you will be on today's follow-up conference call at 5:00pm eastern time. Additionally, please review the attached report in advance of today's call.

The conference call information for today's call:

Call in number: [redacted]
Participant access code: [redacted]

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Hanley, Kallie
Sent: Monday, May 24, 2010 12:56 PM
To: 'hans.juvkam-wold@pe.tamu.edu'; 'Bob Bea'; 'Ford Brett'; 'Per Holand'; 'mechenevert@austin.utexas.edu'; 'Arnold Stancell'; 'Benton Baugh'
Cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece
Subject: NAE Peer Review Panel - follow up call

NAE Peer Review Panel Members:

We look forward to speaking with you on tomorrow's follow-up call: Tuesday, May 25 at 5:00pm Eastern Time. Please use the following conference call information:

Call in number: [redacted]
Participant access code: [redacted]

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Kemkar, Neal
To: Kemkar, Neal; hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: FINAL DRAFT REPORT ATTACHED: U. S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Tuesday, May 25, 2010 9:30:26 AM
Attachments: Interim Measures Report 100525 nk FINAL.pdf

Please review the final draft copy of the 30-day report in advance of our 5pm eastern time call this evening.

Thank you.
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 21, 2010 4:08 PM
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; 'Chenevert, Martin E'; 'Arnold Stancell'
Cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve
Subject: MAY 25, 2010 5pm CALL: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report

Thank you for your earlier comments.

Please **HOLD Tuesday, May 25 from 5:00 to 6:30 eastern time** for a follow-up conversation.

Kallie Hanley will confirm the date and time and distribute meeting details in advance of the meeting.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Black, Steve

Sent: Sunday, May 16, 2010 10:16 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

CONFIDENTIAL DRAFT – PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA

Thank you for returning signed confidentiality and non-disclosure agreements. Further to Neal's message and request below, would you kindly review and be prepared to comment on the attached draft safety recommendations during the conference call tomorrow. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
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1849 C Street, N.W., MS 7229
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(202) 208-5379

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cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece;
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Date: Monday, May 24, 2010 12:56:07 PM

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The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Hanley, Kallie
To: hans.juvkam-wold@pe.tamu.edu;
cc: Kemkar, Neal;
Subject: bio information needed
Date: Monday, May 24, 2010 9:52:03 AM

Hans

We are gathering the full affiliations/degrees of our NAE Peer Review Panel members. Please send me an email with listing that information as it pertains to you as soon as possible.

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Juvkam-Wold, Hans
To: Kemkar, Neal; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: RE: MAY 25, 2010 5pm CALL: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Saturday, May 22, 2010 4:05:08 PM

All,

The following website provides a semi-technical analysis of the events that resulted in the blowout at the BP well in the GOM.

www.theoildrum.com/node6493#more

The analysis is based on what is known or believed at this time, so some of the conclusions may change.

I am sending this to you all because I am concerned that we may end up recommending regulatory changes that may or may not address the actual causes of this incident.

Hans

~~~
~~~

From: Black, Steve
Sent: Sunday, May 16, 2010 10:16 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

CONFIDENTIAL DRAFT - PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
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Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov<mailto:steve_black@ios.doi.gov>

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]; 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Bob Bea
To: Kemkar, Neal;
cc: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell; Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: Re: MAY 25, 2010 5pm CALL: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Saturday, May 22, 2010 3:12:07 PM
Attachments: BobBeaPreliminaryAnalysesrev5.pdf

---

attached is update i prepared after our last tele conference.

i will be on standby for the tuesday call access instructions.

have a great weekend.

bob

Kemkar, Neal wrote:

> Thank you for your earlier comments.
>
> Please **HOLD Tuesday, May 25 from 5:00 to 6:30 eastern time** for a follow-up conversation.
>
> Kallie Hanley will confirm the date and time and distribute meeting details in advance of the meeting.
>
> Best,
> Neal
>
> **Neal Kemkar**
> Office of the Secretary
> U.S. Department of the Interior
> (202) 208-5379
>
> **From:** Black, Steve
> **Sent:** Sunday, May 16, 2010 10:16 PM
> **To:** hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
> **Cc:** Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
> **Subject:** FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
> **Importance:** High
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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--
Professor Robert Bea, PhD, PE

Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS[redacted]

From: Hanley, Kallie
To: "bea@ce.berkeley.edu";
cc: Kemkar, Neal;
Subject: RE: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures
Date: Thursday, May 20, 2010 3:07:05 PM

Dr. Bea

Have you been able to attach your document and resend? We look forward to reviewing it.

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

-----Original Message-----
From: Kemkar, Neal
Sent: Wednesday, May 19, 2010 9:15 AM
To: 'bea@ce.berkeley.edu'; Hanley, Kallie
Subject: Re: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures

Many thanks Bob. We look forward to reviewing.

----- Original Message -----
From: Robert Bea <bea@ce.berkeley.edu>
To: Kemkar, Neal; Hanley, Kallie
Sent: Wed May 19 06:42:00 2010
Subject: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures

attached as you requested is summary of my preliminary findings and thoughts about the Deepwater Horizon failures and recommendations for the future continuation of this important activity.

thank you for the opportunity to help with this important project.

bob
--
Professor Robert Bea, PhD, PE
Center for Catastrophic Risk Management
Department of Civil & Environmental Engineering
212 McLaughlin Hall
Berkeley, CA 94720-1710
(510) 642-0967
(510) 643-8919 (fax)

Email: Bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, CA 94556
925 631-1587 (phone & fax)
(925) 699-3503 (cell phone)
Email: BeaRAMS@[redacted]

From: Black, Steve
To: Ford Brett; Kemkar, Neal;
cc: Ishee, Mary Katherine; Hanley, Kallie;
Subject: RE: Brett Comments: U. S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Tuesday, May 18, 2010 3:25:04 PM

Ford, thank you. These are very helpful comments, including your editorial comments. Many thanks for your timely response.

Steve

From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Tuesday, May 18, 2010 1:11 PM
To: Kemkar, Neal; Black, Steve
Cc: Ishee, Mary Katherine; Hanley, Kallie
Subject: Brett Comments: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal and Steve –

As I understand my instructions, I was NOT to send to other 'discussants'.

Attached are my Suggested Revisions (should be in purple), and my "Editorial Comments" *(shown in purple parenthetical italics)* – to explaining my thinking. These comments may be helpful in combining with other 'discussants'. Besides edits to the current recommendations, I've added unique ideas, and have highlighted the purple edits in yellow.

I've included a one page general comment at the bottom of the document, that explains my approach to the '30 day effort' as I understand it.

One comment that I didn't include: I'd say who(m?) ever came up with this original did a pretty good job to start with. I hope my contribution helps.

I'm at DC time + 6hrs – call any time at 918-408-9516 if I can be helpful, (or email fbrett@petroskills.com).

Thank you for your efforts. Please let me know if I can be of further assistance.

Sincerely,

Ford Brett
President
PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; Ford Brett; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu

Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Black, Steve
To: "Per.Holand@exprosoft.com"; Kemkar, Neal;
cc: Hanley, Kallie;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Tuesday, May 18, 2010 8:46:17 AM

Per, thank you very much for your prompt reply and helpful comments.

Steve

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Tue May 18 08:24:50 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

Please find enclosed your document modified by me with track changes.

I have only commented on the BOP issues. I have deleted some of your proposed actions that I found not be practical and I have added some new and modified some.

I hope that you find my comments useful.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 18:12
To: Per Holand
Cc: Hanley, Kallie; Black, Steve

Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Thanks Per. Glad you can make the call--sorry for the late hour in your time zone. Look forward to speaking on Monday.

Neal

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

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Office of the Secretary
U.S. Department of the Interior
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Best,
Neal

From: Hanley, Kallie
To: mechenevert@austin.utexas.edu; Arnold Stancell;
cc: Kemkar, Neal;
Subject: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Monday, May 17, 2010 2:28:25 PM
Attachments: 100516 Candidate Recommendations.doc

Mr. Chenevert and Mr. Stancell:

Please see the email below from Steve Black, Counselor to the Secretary to the other participants in the NAE Peer Review Panel.

The conference call will be today at 5:00pm Eastern. Please use the following call-in information:

Call-in number: [redacted]
Participant code: [redacted]

Please call my cell phone at 202-374-7694 if you have any questions.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

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Sent: Sunday, May 16, 2010 10:16 PM
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cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie;
Subject: API Task Force Recommendations
Date: Monday, May 17, 2010 1:37:40 PM
Attachments: DRAFT JITF Recommendations.pdf
65-2_e1.pdf
IADC HSE Case Guidelines-MODU Offshore.pdf

All – in further preparation for this evening's conference call, please see the attached draft recommendations from the API task forces. I received these earlier today. Please do not distribute without permission from API.

Please contact one of us if you have any questions. Thanks for your assistance.

Steve

Steve Black
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U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

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To: Per.Holand@exprosoft.com;
cc: Kemkar, Neal; Hanley, Kallie;
Subject: FW: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 10:19:28 PM
Attachments: 100516 Candidate Recommendations.doc

Dr. Holand, please see below. My e-mail to your address below was returned undeliverable.

Thank you.

Steve

From: Black, Steve
Sent: Sunday, May 16, 2010 10:16 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
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As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Black, Steve
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu;
cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie;
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 10:15:31 PM
Attachments: 100516 Candidate Recommendations.doc

CONFIDENTIAL DRAFT – PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA

Thank you for returning signed confidentiality and non-disclosure agreements. Further to Neal's message and request below, would you kindly review and be prepared to comment on the attached draft safety recommendations during the conference call tomorrow. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]'; 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased

safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

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If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
To: Per Holand;
cc: Kemkar, Neal;
Subject: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern
Date: Sunday, May 16, 2010 2:53:49 PM

Thank you for agreeing to participate in the NAE Peer Review Panel. We would like to convene the panel for a call tomorrow, Monday, May 17th at 5pm Eastern. Please use the following conference call number:

Call in number: [redacted]
Participant Access Code: [redacted]

Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Hanley, Kallie
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu;
cc: Kemkar, Neal;
Subject: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern
Date: Sunday, May 16, 2010 2:52:20 PM

Thank you for agreeing to participate in the NAE Peer Review Panel. We would like to convene the panel for a call tomorrow, Monday, May 17th at 5pm Eastern. Please use the following conference call number:

Call in number: [redacted]
Participant Access Code: [redacted]

Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Bob Bea
To: Kemkar, Neal;
cc: "acstancell@[redacted]"; "hans.juvkam-wold@pe.tamu.edu"; "per.holland@sintef.no"; "bbaugh@radoil.com"; "mechenevert@mail.utexas.edu"; "FBrett@Petroskills.com"; Black, Steve; Hanley, Kallie; pblair@nas.edu;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 5:50:56 PM
Attachments: DOI Agreement May 15, 2010.pdf
OTC02-14293-deepwater operations HOF.pdf
Professor_Bob_Bea- CCRM Deepwater Horizon.pdf

Attached is the completed signed disclosure agreement. I have attached my summary resume.

With the assistance of my colleagues, I am preparing a short list of key elements I suggest to position the DOI - MMS as a world leader in the regulatory regimes associated with the offshore oil and gas infrastructure. I plan to send that list to you before I depart for DC early Monday morning.

Attached is a paper I published in the 2002 Proceedings of the Offshore Technology Conference that applies to the design and operation of deepwater offshore structures. The Risk Based Management (RBM) approaches and strategies have been employed by several major offshore platform and pipeline operators (e.g.Woodside Energy Ltd, Chevron, Unocal, Amoco). I think RBM should form one of the major building blocks of an advanced U.S. industry - government regulatory regime. RBM has proven to be an important part of the offshore platform and pipeline regimes implemented by the Norwegian Petroleum Directorate a the UK Health and Safety Executive.

I look forward to making contributions to this very important effort. Thank you for inviting me to help.

Bob Bea

Kemkar, Neal wrote:

> As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.
>
> I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.
>
> As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:
>
> > <!--[if !supportLists]-->(1) <!--[endif]-->discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
> > <!--[if !supportLists]-->(2) <!--[endif]-->to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report.

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--

Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
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Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Benton Baugh
To: Kemkar, Neal; acstancell@msn.com; hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; mechenevert@mail.utexas.edu; FBrett@Petroskills.com; bea@ce.berkeley.edu;
cc: Black, Steve; Hanley, Kallie; pblair@nas.edu;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 12:55:14 PM
Attachments: BAUGH NON-DISCLOSURE.pdf

Neal: Let me know if this is adequate.

Regards,

Benton F. Baugh

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

The information contained in this e-mail may contain confidential or privileged mater and is intended only for the stated addressee(s). Ifyou are not a valid addressee, the use, disclosure, copying or distribution of this information is prohibited and may be unlawful. If you have received this message in error, please notify the sender immediately and delete all copies of the message from your computer.

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM
To: 'acstancell@[redacted]'; 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Bob Bea
To: Kemkar, Neal;
cc: "acstancell@[redacted]hans.juvkam-wold@pe.tamu.edu"; "per.holland@sintef.no"; "bbaugh@radoil.com"; "mechenevert@mail.utexas.edu"; "FBrett@Petroskills.com"; Black, Steve; Hanley, Kallie; pblair@nas.edu;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Friday, May 14, 2010 8:32:12 PM

Happy Friday Evening Neal (and others),

i will arrive at Kennedy airport at 4:09 PM EST. i do not think i can travel from the airport to my hotel and be checked in (Embassy Suites, 900 10 th Street NW) by the time of the conference call. given that we can address my concerns regarding the non-disclosure agreement (see below), i will connect with the conference call as soon as i can from the hotel.

i will be in Washington from Monday evening through Thursday evening. i have a meeting scheduled for Tuesday. i have tentative meetings scheduled for Thursday (the Thursday PM meeting can be rescheduled). i have reserved a part of Wednesday to be service to this committee - if you want.

please let me know if you would like to meet with me - the day, time, and place.

i have scanned the non-disclosure agreement. The agreement requires that "his or her role in it is confidential." Given my understanding of my employment contract with the University of California, i think this clause could be a problem (public university).

tomorrow morning, i will carefully review the non-disclosure agreement. if i think there could be a problem, i will have to have the University Counsel review the agreement before i can sign it.

as i said earlier, i will depart California early Monday morning (8 AM). given that it is now the end of semester commencement weekend, i do not think that it will be possible for me to have the University Counsel review the agreement and revert their opinion by the deadline you have specified below.

given this situation, how do you suggest i proceed ?

i truly want to assist this effort in any way that i can.

sincerely,

Bob Bea

Kemkar, Neal wrote:

> As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services

60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Hanley, Kallie
To: Bob Bea;
cc: Blair, Peter; Kemkar, Neal; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Friday, May 14, 2010 10:25:50 AM

Thanks Bob.

I will discuss with folks here this afternoon and get back to you by this evening.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Bob Bea [mailto:bea@ce.berkeley.edu]
Sent: Friday, May 14, 2010 10:18 AM
To: Hanley, Kallie
Cc: Blair, Peter; Kemkar, Neal; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Happy Friday Kallie,

here is link to radio interview i did on development of the Deepwater Horizon blowout :

http://www.webwiseforradio.com/site_files/244/File/INO_051210_H3.mp3

please let me know as soon as you can if i could be useful next week on Wednesday or Thursday afternoon (Thursday morning now scheduled for another meeting).

Bob Bea

Hanley, Kallie wrote:
Dr. Bea

Thank you for your willingness to participate and share your depth of knowledge. We will be in touch in the very near future.

Best,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Bob Bea [mailto:bea@ce.berkeley.edu]
Sent: Wednesday, May 12, 2010 9:39 AM
To: Blair, Peter
Cc: Kemkar, Neal; Hanley, Kallie; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Happy Wednesday Peter.

Thank you for the invitation. I will be pleased to serve as a discussant.

As this very important process continues to develop, I will be pleased to help when, where, and how I can be most effective. I and my colleagues in academia, industry, and government see this disaster as a very important opportunity to help this vital public - governmental - industrial - environmental enterprise take major steps forward to continue to develop this precious natural resource in ways that meet our stewardship responsibilities.

Earlier this year, the University of California granted me a sabbatical leave for the 2010 Fall semester. Currently, we are concluding our 2010 Spring semester. Thus I will be on academic leave during the period May 16 through January 18, 2011. This academic leave period will make available much more time for me to help with this important work.

During the early days following the initiation of our investigation of the failures of the flood protection system for the Greater New Orleans Area, we formed the Center for Catastrophic Risk Management (CCRM) at the University of California, Berkeley (http://ccrm.berkeley.edu/). CCRM served as the home for our 2 year National Science Foundation (NSF) sponsored Independent Levee Investigation Team activities. CCRM is a collation of highly qualified interdisciplinary academics and practitioners. During the past 2 years, members of this group have focused on a NSF research project on development of advanced Risk Assessment and Management (RAM) based approaches to enhance the resilience and sustainability of California's Sacramento and San Joaquin Delta infrastructure systems (http://

ccrm.berkeley.edu/resin/).

Shortly after I became engaged in this disaster (7 PM April 20th by former students engaged in all parts of the Gulf Coast oil and gas industry), I turned to my CCRM colleagues and asked for their help. The present director of CCRM, Professor Karlene Roberts (career expert in High Reliability Organizations), has agreed to help form that group. Karlene and I have served as RAM consultants to the international oil and gas industry, including British Petroleum and the U.S. Minerals Management Service. Also, I have asked my colleagues in the international oil and gas industry for their help. Many of these colleagues have agreed to help with this work. This group is being formed to support our research to help investigate causes for the failures and successes associated with the Deepwater Horizon drilling unit and the subsequent containment and clean-up operations. As in the case of our investigation of the Hurricane Katrina flood protection failures, we plan to address ways to help improve our stewardship responsibilities for U.S. offshore oil and gas resources. Again, we are turning to the NSF to provide funds to help defray expenses associated with this work.

Sincerely,

Bob Bea

Blair, Peter wrote:
Dear Dr. Bea:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore

drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you. Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
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Telephone/fax 510-642-0967
Telefax 510-643-8919
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Telephone 925-631-1587
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--
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Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Hanley, Kallie
To: "per.holand@exprosoft.com";
cc: "Mikhail_A._Adamantiades@ceq.eop.gov"; Graves, Carmiece; Kemkar, Neal;
Subject: Running a few minutes late
Date: Thursday, May 13, 2010 11:02:40 AM

Per

I apologize, we are running just a few minutes late. We will dial in to the conference call number in just a few minutes.

Thank you,

Kallie

From: Hanley, Kallie
To: Arnold Stancell; Blair, Peter;
cc: Kemkar, Neal; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:22:08 PM

Mr. Stancell,

Thank you for your willingness to participate and share your depth of knowledge. We will be in touch soon.

Best,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Arnold Stancell [mailto:acstancell@msn.com]
Sent: Wednesday, May 12, 2010 10:41 AM
To: Blair, Peter
Cc: Kemkar, Neal; Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Dear Peter,

I look forward to hearing from DOI.

Best regards,
Arnold

> ----- Original Message -----
> From: Blair, Peter
> To: 'acstancell@[redacted]
> Cc: 'Kemkar, Neal' ; Hanley, Kallie ; Black, Steve
> Sent: Wednesday, May 12, 2010 7:37 AM
> Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
>
> Dear Arnold:
>
> I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you. Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.

Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Hanley, Kallie
To: Bob Bea; Blair, Peter;
cc: Kemkar, Neal; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:21:19 PM

Dr. Bea

Thank you for your willingness to participate and share your depth of knowledge. We will be in touch in the very near future.

Best,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Bob Bea [mailto:bea@ce.berkeley.edu]
Sent: Wednesday, May 12, 2010 9:39 AM
To: Blair, Peter
Cc: Kemkar, Neal; Hanley, Kallie; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Happy Wednesday Peter.

Thank you for the invitation. I will be pleased to serve as a discussant.

As this very important process continues to develop, I will be pleased to help when, where, and how I can be most effective. I and my colleagues in academia, industry, and government see this disaster as a very important opportunity to help this vital public - governmental - industrial - environmental enterprise take major steps forward to continue to develop this precious natural resource in ways that meet our stewardship responsibilities.

Earlier this year, the University of California granted me a sabbatical leave for the 2010 Fall semester. Currently, we are concluding our 2010 Spring semester. Thus I will be on academic leave during the period May 16 through January 18, 2011. This academic leave period will make available much more time for me to help with this important work.

During the early days following the initiation of our investigation of the failures of the flood protection system for the Greater New Orleans Area, we formed the Center for Catastrophic Risk Management (CCRM) at the University of California, Berkeley (http://ccrm.berkeley.edu/). CCRM served as the home for our 2 year National Science Foundation (NSF) sponsored Independent Levee Investigation Team activities. CCRM is a collation of highly qualified interdisciplinary academics and practitioners. During the past 2 years, members of this group have focused on a NSF research project on development of advanced Risk Assessment and Management (RAM) based approaches to enhance the resilience and sustainability of California's Sacramento and San Joaquin Delta infrastructure systems (http://ccrm.berkeley.edu/resin/).

Shortly after I became engaged in this disaster (7 PM April 20th by former students engaged in all parts of the Gulf Coast oil and gas industry), I turned to my CCRM colleagues and asked for their help. The present director of CCRM, Professor Karlene Roberts (career expert in High Reliability Organizations), has agreed to help form that group. Karlene and I have served as RAM consultants to the international oil and gas industry, including British Petroleum and the U.S. Minerals Management Service. Also, I have asked my colleagues in the international oil and gas industry for their help. Many of these colleagues have agreed to help with this work. This group is being formed to support our research to help investigate causes for the failures and successes associated with the Deepwater Horizon drilling unit and the subsequent containment and clean-up operations. As in the case of our investigation of the Hurricane Katrina flood protection failures, we plan to address ways to help improve our stewardship responsibilities for U.S. offshore oil and gas resources. Again, we are turning to the NSF to provide funds to help defray expenses associated with this work.

Sincerely,

Bob Bea

Blair, Peter wrote:
Dear Dr. Bea:

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With best wishes,

Peter D. Blair, Ph.D.
Executive Director

Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

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Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Hanley, Kallie
To: Ford Brett; Blair, Peter;
cc: Kemkar, Neal; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:20:39 PM

Mr. Brett

Thank you for your willingness to participate and share your depth of knowledge. We will be in touch in the very near future to set something up.

Best,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

-----Original Message-----
From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Wednesday, May 12, 2010 8:13 AM
To: Blair, Peter
Cc: Kemkar, Neal; Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Dr Blair -

I would be honored to participate - I'd certainly do my best to help understand the cause, and how to prevent regretable incidents like this in the future.

Please let me know how I may be able to help.

Sincerely,

Ford Brett

(m) +1 918 408 9516

On May 12, 2010, at 6:34 AM, "Blair, Peter" <PBlair@nas.edu> wrote:

> Dear Mr. Brett:
>

>
>
> I am writing to alert you that you may be asked by the U.S.
> Department of Interior (DOI), Office of the Secretary, to provide
> brief but important service with regard to the Department's
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> With best wishes,
>
>
>
> Peter D. Blair, Ph.D.
>
> Executive Director
>
> Division on Engineering and Physical Sciences
>
> The National Academies
>
> 500 Fifth Street, N.W.
>
> Washington, DC 20001
>
> Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373
>
>

From: Roxanne Makasdjian
To: Bob Bea; Blair, Peter;
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve; Sarah Yang; Karlene Roberts; rsanders@berkeley.edu;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 12:20:33 PM

Thank you, Bob. This information is useful for our media relations work on your behalf, too.

Sincerely,

Roxanne Makasdjian
Manager, Broadcast Communications
UC Berkeley Media Relations
2200 Bancroft Way, 4204
Berkeley, CA 94720-4204
(510) 642-6051
roxannem@berkeley.edu

From: Bob Bea [mailto:bea@ce.berkeley.edu]
Sent: Wednesday, May 12, 2010 6:39 AM
To: Blair, Peter
Cc: 'Kemkar, Neal'; Hanley, Kallie; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Happy Wednesday Peter.

Thank you for the invitation. I will be pleased to serve as a discussant.

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With best wishes,

Peter D. Blair, Ph.D.
Executive Director

Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

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Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

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Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "acstancell@[redacted]
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:38:47 AM

Dear Arnold:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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From: Blair, Peter
To: "hans.juvkam-wold@pe.tamu.edu";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:38:14 AM

Dear Juvkam-Wold:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "per.holland@sintef.no";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:36:22 AM

Dear Holland:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
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From: Blair, Peter
To: "mechenevert@mail.utexas.edu";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:35:38 AM

Dear Dr. Chenevert:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

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The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "FBrett@Petroskills.com";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:34:00 AM

Dear Mr. Brett:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you.

Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "FBrett@Petroskills.com";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:34:00 AM

Dear Mr. Brett:

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Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "bea@ce.berkeley.edu";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:32:02 AM

Dear Dr. Bea:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

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Peter D. Blair, Ph.D.
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Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "bea@ce.berkeley.edu";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:32:02 AM

Dear Dr. Bea:

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Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "bbaugh@radoil.com";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:31:03 AM

Dear Dr. Baugh:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Black, Steve
To: Ford Brett;
cc: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh; Kemkar, Neal; Hanley, Kallie;
Subject: RE: Question re BOP stacks
Date: Wednesday, May 26, 2010 9:32:47 PM

Thank Ford. I'll check w/ MMS in the morning. Thanks very much for the quick reply.

Steve

From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Wednesday, May 26, 2010 9:02 PM
To: Ford Brett
Cc: Black, Steve; hans.juvkam-wold@pe.tamu.edu; Bob Bea; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh; Kemkar, Neal; Hanley, Kallie
Subject: More: Question re BOP stacks

[redacted]

Ford Brett

(m) +1 918 408 9516

On May 26, 2010, at 7:55 PM, "Ford Brett" <FBrett@PetroSkills.com> wrote:

Steve

[redacted]

The question is answerable in about 2 hrs tomorrow AM. I you'd like me to run this down please let me know.

Ford Brett

(m) +1 918 408 9516

On May 26, 2010, at 7:36 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

> Good evening: I don't remember if one of us asked you this question. In connection with our proposed recommendation I.4, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?
>
> Many thanks.
>
> Steve
>
> Steve Black
> Counselor to the Secretary
> U.S. Department of the Interior
> 1849 C Street, N.W., MS 7229
> Washington, D.C. 20240
> Phone: 202-208-4123
> Fax: 202-208-4561
> e-mail: steve_black@ios.doi.gov

From: Black, Steve
To: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh;
cc: Kemkar, Neal; Hanley, Kallie;
Subject: Question re BOP stacks
Date: Wednesday, May 26, 2010 8:36:06 PM

Good evening: I don't remember if one of us asked you this question. In connection with our proposed recommendation I.4, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Black, Steve
To: Ford Brett; Kemkar, Neal;
cc: Ishee, Mary Katherine; Hanley, Kallie;
Subject: RE: Brett Comments: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Tuesday, May 18, 2010 3:25:04 PM

Ford, thank you. These are very helpful comments, including your editorial comments. Many thanks for your timely response.

Steve

From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Tuesday, May 18, 2010 1:11 PM
To: Kemkar, Neal; Black, Steve
Cc: Ishee, Mary Katherine; Hanley, Kallie
Subject: Brett Comments: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal and Steve –

As I understand my instructions, I was NOT to send to other 'discussants'.

Attached are my Suggested Revisions (should be in purple), and my "Editorial Comments" *(shown in purple parenthetical italics)* – to explaining my thinking. These comments may be helpful in combining with other 'discussants'. Besides edits to the current recommendations, I've added unique ideas, and have highlighted the purple edits in yellow.

I've included a one page general comment at the bottom of the document, that explains my approach to the '30 day effort' as I understand it.

One comment that I didn't include: I'd say who(m?) ever came up with this original did a pretty good job to start with. I hope my contribution helps.

I'm at DC time + 6hrs – call any time at 918-408-9516 if I can be helpful, (or email fbrett@petroskills.com).

Thank you for your efforts. Please let me know if I can be of further assistance.

Sincerely,

Ford Brett
President
PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; Ford Brett; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu

Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Black, Steve
To: "Per.Holand@exprosoft.com"; Kemkar, Neal;
cc: Hanley, Kallie;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Tuesday, May 18, 2010 8:46:17 AM

Per, thank you very much for your prompt reply and helpful comments.

Steve

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Tue May 18 08:24:50 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

Please find enclosed your document modified by me with track changes.

I have only commented on the BOP issues. I have deleted some of your proposed actions that I found not be practical and I have added some new and modified some.

I hope that you find my comments useful.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 18:12
To: Per Holand
Cc: Hanley, Kallie; Black, Steve

Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Thanks Per. Glad you can make the call--sorry for the late hour in your time zone. Look forward to speaking on Monday.

Neal

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

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To: Per.Holand@exprosoft.com; "hans.juvkam-wold@pe.tamu.edu"; "bbaugh@radoil.com"; "FBrett@Petroskills.com"; "bea@ce.berkeley.edu"; acstancell[redacted]
cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie;
Subject: API Task Force Recommendations
Date: Monday, May 17, 2010 1:37:40 PM
Attachments: DRAFT JITF Recommendations.pdf
65-2_e1.pdf
IADC HSE Case Guidelines-MODU Offshore.pdf

All – in further preparation for this evening's conference call, please see the attached draft recommendations from the API task forces. I received these earlier today. Please do not distribute without permission from API.

Please contact one of us if you have any questions. Thanks for your assistance.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Black, Steve
To: Per.Holand@exprosoft.com;
cc: Kemkar, Neal; Hanley, Kallie;
Subject: FW: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 10:19:28 PM
Attachments: 100516 Candidate Recommendations.doc

Dr. Holand, please see below. My e-mail to your address below was returned undeliverable.

Thank you.

Steve

From: Black, Steve
Sent: Sunday, May 16, 2010 10:16 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

CONFIDENTIAL DRAFT – PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA

Thank you for returning signed confidentiality and non-disclosure agreements. Further to Neal's message and request below, would you kindly review and be prepared to comment on the attached draft safety recommendations during the conference call tomorrow. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
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If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Black, Steve
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu;
cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie;
Subject: FW: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 10:15:31 PM
Attachments: 100516 Candidate Recommendations.doc

CONFIDENTIAL DRAFT – PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA

Thank you for returning signed confidentiality and non-disclosure agreements. Further to Neal's message and request below, would you kindly review and be prepared to comment on the attached draft safety recommendations during the conference call tomorrow. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased

safety measures for energy development on the outer continental shelf.

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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Benton Baugh; hans.juvkam-wold@pe.tamu.edu; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; "Chenevert, Martin E"; "Arnold Stancell";
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve; PBlair@nas.edu;
Subject: FINAL 30-DAY SAFETY REPORT
Date: Thursday, May 27, 2010 1:53:47 PM
Attachments: Interim Measures Report 100527 FINAL.pdf
30day report transmittal letter.pdf

Final report and transmittal letter are attached, with thanks from the Secretary and the whole team.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Barkoff, Kendra
To: Benton Baugh; Kemkar, Neal; "Arnold Stancell";
cc: Black, Steve; Hanley, Kallie;
Subject: RE: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow
Date: Thursday, May 27, 2010 8:07:46 AM

Thanks Benton,
Lets see if someone who is in the country can do it. Worse comes to worse, we can cal always get you a number.
Kendra

From: Benton Baugh [mailto:bbaugh@radoil.com]
Sent: Thursday, May 27, 2010 2:12 AM
To: Kemkar, Neal; 'Arnold Stancell'
Cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie
Subject: RE: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow

I am willing but unsure if I can be of much help. I am on a cruise ship on the inside passage west of Canada and am not sure of the phone connections.

If you give me a number I will call in and try.

Benton

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 26, 2010 9:50 PM
To: bbaugh@radoil.com; Arnold Stancell
Cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie
Subject: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow

Benton and Arnie – would either or both of you like to participate in a quick "technical briefing" for reporters after we announce the 30-day safety report tomorrow at 3pm eastern? If so, please let our press secretary, Kendra Barkoff know by 10am eastern.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior

(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Benton Baugh
To: Kemkar, Neal; "Arnold Stancell";
cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie;
Subject: RE: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow
Date: Thursday, May 27, 2010 2:12:52 AM

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Benton

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 26, 2010 9:50 PM
To: bbaugh@radoil.com; Arnold Stancell
Cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie
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Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu

Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Per Holand
To: Black, Steve; hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh;
cc: Kemkar, Neal; Hanley, Kallie;
Subject: RE: Question re BOP stacks
Date: Thursday, May 27, 2010 2:11:52 AM

Goodmorning.

Offshore Magazine each year publish a Worldwide survey of deepwater drilling rigs (Operational for > than 4000 feet). In this survey the number of rams for each rig is listed. The survey is on a big sheet that I cannot scan and send. On the sheet it is stated that it may be downloaded from www.offshore-mag.com, alternatively you may request a copy through E-mail to posters@pennwell.com.

I have quickly gone through the 2008 version of this overview. The number of rams in each BOP was distributed as follows

	No of rigs with number of rams				
Rig type	3 rams	4 rams	5 rams	6 rams	7 rams
Dynamically positioned		26	30	21	1
Conventionally mored	1	34	8	1	

You can assume that most BOPs with 4 rams have one shear blind ram. BOPs with 5 rams may have one or two shear blind rams. BOPs with 6 rams should normally have two blind shear rams. Most rigs from after built after 2000 have 5 or more rams.

This is the worldwide data. I do not know how it is in the US GoM.

For the study I completed in 1999 that was based on 1996/1997 drilling, that should represent the deepwater (> 1000 feet) rigs in US GoM that time 1 of the 26 rigs had two blind shear rams. This BOP had four rams. One of the BOPs had five rams , but only one blind shear ram.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: 27. mai 2010 02:36
To: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh
Cc: Kemkar, Neal; Hanley, Kallie
Subject: Question re BOP stacks

Good evening: I don't remember if one of us asked you this question. In connection with our proposed recommendation I.4, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
To: bbaugh@radoil.com; Arnold Stancell;
cc: Black, Steve; Barkoff, Kendra; Hanley, Kallie;
Subject: Invite to Be an Expert at DOI Technical Briefing -- 3pm tomorrow
Date: Thursday, May 27, 2010 12:49:32 AM

Benton and Arnie – would either or both of you like to participate in a quick "technical briefing" for reporters after we announce the 30-day safety report tomorrow at 3pm eastern? If so, please let our press secretary, Kendra Barkoff know by 10am eastern.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ford Brett
To: Ford Brett;
cc: Black, Steve; hans.juvkam-wold@pe.tamu.edu; Bob Bea; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh; Kemkar, Neal; Hanley, Kallie;
Subject: More: Question re BOP stacks
Date: Wednesday, May 26, 2010 9:00:01 PM

My previous note describes my reasoning behind having the 2 shear requirement for 'unmoored' rigs. Perhaps 'unmoored' or rigs operating in water deeper than say 800'.

Ford Brett

(m) +1 918 408 9516

On May 26, 2010, at 7:55 PM, "Ford Brett" <FBrett@PetroSkills.com> wrote:

> Steve
>
> I don't know for sure. But I believe that many of the older MODUs drilling in shallower water would not have enough RAM bodies to have 2 shears and the pipe rams needed for a well. I'm also concerned that these older rigs would not be capable of handling BOPs with sufficient number of RAMs because of the height of the deck. If I am correct, many shallower water MODUs (which are moored andore easily spaced out) would not be able to work.
>
> I'm reasonably certain most of the deep water rigs could have 2 shears.
>
> The question is answerable in about 2 hrs tomorrow AM. I you'd like me to run this down please let me know.
>
> Ford Brett
>
> (m) +1 918 408 9516
>
> On May 26, 2010, at 7:36 PM, "Black, Steve"

<steve_black@ios.doi.gov> wrote:

Good evening: I don't remember if one of us asked you this question. In connection with our proposed recommendation I.4, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve

Steve Black

Counselor to the Secretary

U.S. Department of the Interior

1849 C Street, N.W., MS 7229

Washington, D.C. 20240

Phone: 202-208-4123

Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

From: Ford Brett
To: Black, Steve;
cc: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh; Kemkar, Neal; Hanley, Kallie;
Subject: Re: Question re BOP stacks
Date: Wednesday, May 26, 2010 8:55:19 PM

Steve

[redacted]

The question is answerable in about 2 hrs tomorrow AM. I you'd like me to run this down please let me know.

Ford Brett

(m) +1 918 408 9516

On May 26, 2010, at 7:36 PM, "Black, Steve" <steve_black@ios.doi.gov> wrote:

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>
> Many thanks.

Steve

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U.S. Department of the Interior

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Washington, D.C. 20240

Phone: 202-208-4123

Fax: 202-208-4561

e-mail: steve_black@ios.doi.gov

From:	Benton Baugh
To:	Kemkar, Neal; hans.juvkam-wold@pe.tamu.edu; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; "Chenevert, Martin E"; "Arnold Stancell";
cc:	Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject:	RE: FINAL DRAFT REPORT ATTACHED: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date:	Tuesday, May 25, 2010 8:43:46 PM
Attachments:	BAUGH COMMENTS MAY 25.doc

Regards,

Benton F. Baugh

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

The information contained in this e-mail may contain confidential or privileged mater and is intended only for the stated addressee(s). Ifyou are not a valid addressee, the use, disclosure, copying or distribution of this information is prohibited and may be unlawful. If you have received this message in error, please notify the sender immediately and delete all copies of the message from your computer.

From: Hanley, Kallie
To: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh;
cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece;
Subject: Call today with Interior
Date: Tuesday, May 25, 2010 10:38:18 AM
Attachments: Interim Measures Report 100525 nk FINAL.PDF

Good Morning

Please confirm that you will be on today's follow-up conference call at 5:00pm eastern time. Additionally, please review the attached report in advance of today's call.

The conference call information for today's call:

Call in number: [redacted]
Participant access code: [redacted]

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Hanley, Kallie
Sent: Monday, May 24, 2010 12:56 PM
To: 'hans.juvkam-wold@pe.tamu.edu'; 'Bob Bea'; 'Ford Brett'; 'Per Holand'; 'mechenevert@austin.utexas.edu'; 'Arnold Stancell'; 'Benton Baugh'
Cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece
Subject: NAE Peer Review Panel - follow up call

NAE Peer Review Panel Members:

We look forward to speaking with you on tomorrow's follow-up call: Tuesday, May 25 at 5:00pm Eastern Time. Please use the following conference call information:

Call in number: [redacted]
Participant access code: [redacted]

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Kemkar, Neal
To: Kemkar, Neal; hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: FINAL DRAFT REPORT ATTACHED: U. S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Tuesday, May 25, 2010 9:30:26 AM
Attachments: Interim Measures Report 100525 nk FINAL.pdf

Please review the final draft copy of the 30-day report in advance of our 5pm eastern time call this evening.

Thank you.
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 21, 2010 4:08 PM
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; 'Chenevert, Martin E'; 'Arnold Stancell'
Cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve
Subject: MAY 25, 2010 5pm CALL: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report

Thank you for your earlier comments.

Please **HOLD Tuesday, May 25 from 5:00 to 6:30 eastern time** for a follow-up conversation.

Kallie Hanley will confirm the date and time and distribute meeting details in advance of the meeting.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Black, Steve

Sent: Sunday, May 16, 2010 10:16 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

CONFIDENTIAL DRAFT – PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA

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Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

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To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
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If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
To: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh;
cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece;
Subject: NAE Peer Review Panel - follow up call
Date: Monday, May 24, 2010 12:56:07 PM

NAE Peer Review Panel Members:

We look forward to speaking with you on tomorrow's follow-up call: Tuesday, May 25 at 5:00pm Eastern Time. Please use the following conference call information:

Call in number [redacted]
Participant access code: [redacted]

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Juvkam-Wold, Hans
To: Kemkar, Neal; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: RE: MAY 25, 2010 5pm CALL: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Saturday, May 22, 2010 4:05:08 PM

All,

The following website provides a semi-technical analysis of the events that resulted in the blowout at the BP well in the GOM.

www.theoildrum.com/node6493#more

The analysis is based on what is known or believed at this time, so some of the conclusions may change.

I am sending this to you all because I am concerned that we may end up recommending regulatory changes that may or may not address the actual causes of this incident.

Hans

~~~
~~~

From: Black, Steve
Sent: Sunday, May 16, 2010 10:16 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

CONFIDENTIAL DRAFT - PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
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Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov<mailto:steve_black@ios.doi.gov>

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
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Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Bob Bea
To: Kemkar, Neal;
cc: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell; Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: Re: MAY 25, 2010 5pm CALL: U.S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Saturday, May 22, 2010 3:12:07 PM
Attachments: BobBeaPreliminaryAnalysesrev5.pdf

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attached is update i prepared after our last tele conference.

i will be on standby for the tuesday call access instructions.

have a great weekend.

bob

Kemkar, Neal wrote:

> Thank you for your earlier comments.
>
> Please **HOLD Tuesday, May 25 from 5:00 to 6:30 eastern time** for a follow-up conversation.
>
> Kallie Hanley will confirm the date and time and distribute meeting details in advance of the meeting.
>
> Best,
> Neal
>
> **Neal Kemkar**
> Office of the Secretary
> U.S. Department of the Interior
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> **Sent:** Sunday, May 16, 2010 10:16 PM
> **To:** hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
> **Cc:** Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
> **Subject:** FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
> **Importance:** High
>
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Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--
Professor Robert Bea, PhD, PE

Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Kemkar, Neal
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; Per.Holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Ishee, Mary Katherine; Hanley, Kallie; Black, Steve;
Subject: MAY 25, 2010 5pm CALL: U. S. Department of Interior Peer Review for Offshore Energy Development Safety Report
Date: Friday, May 21, 2010 4:07:51 PM

Thank you for your earlier comments.

Please **HOLD Tuesday, May 25 from 5:00 to 6:30 eastern time** for a follow-up conversation.

Kallie Hanley will confirm the date and time and distribute meeting details in advance of the meeting.

Best,
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(202) 208-5379

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Cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: Per Holand; Black, Steve;
cc: Hanley, Kallie;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Thursday, May 20, 2010 4:17:09 PM

Thanks for your follow up Per.

If you follow your proposed route, please do disclose to BP the fact of your involvement with our 30-day safety report but do not disclose any confidential communications or documents that you have or will receive from Interior.

I know your expertise is in high demand so thanks for your understanding about our need to run checks here. And again, thank you for your help with his project.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Per Holand [mailto:Per.Holand@exprosoft.com]
Sent: Thursday, May 20, 2010 4:08 PM
To: Kemkar, Neal; Black, Steve
Cc: Hanley, Kallie
Subject: SV: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I promised BP an answer today.

I plan to say that I would be pleased to particpate in their investigation team, but I cannot join it before May 31.

Then your report should be public and my Peer Review obligation finished, so I assume that it will not cause any problems.

Best regards Per

Fra: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sendt: on 19/05/2010 21:10
Til: Per Holand; Black, Steve
Kopi: Hanley, Kallie
Emne: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Per – thanks for checking. Before you accept, please allow us some time to consider this question with

appropriate counsel and get back to you quickly.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Per Holand [mailto:Per.Holand@exprosoft.com]
Sent: Wednesday, May 19, 2010 3:08 PM
To: Black, Steve; Kemkar, Neal
Cc: Hanley, Kallie
Subject: SV: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Steve, Neal

I have been requested by BP to support them in their investigation related to MC252/Deepwater Horizon incident. I would like to accept that. Is that OK for you?

I will of cause not mention that I have been involved with you before May 28.

Per

Fra: Black, Steve [mailto:steve_black@ios.doi.gov]
Sendt: ti 18/05/2010 14:46
Til: Per Holand; Kemkar, Neal
Kopi: Hanley, Kallie
Emne: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Per, thank you very much for your prompt reply and helpful comments.

Steve

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Tue May 18 08:24:50 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

Please find enclosed your document modified by me with track changes.

I have only commented on the BOP issues. I have deleted some of your proposed actions that I found not be practical and I have added some new and modified some.

I hope that you find my comments useful.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 18:12
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Thanks Per. Glad you can make the call--sorry for the late hour in your time zone. Look forward to speaking on Monday.

Neal

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

Per – good to talk to you earlier this week.

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Thanks,
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cc: Hanley, Kallie;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Wednesday, May 19, 2010 3:10:06 PM

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We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

From: Kemkar, Neal
To: "acstancell@[redacted]
cc: Black, Steve;
Subject: Re: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA
Date: Wednesday, May 19, 2010 9:13:29 AM

Many thanks Arnie. We look forward to reviewing.

From: Arnold Stancell <acstancell@[redacted]
To: Kemkar, Neal
Sent: Wed May 19 08:20:08 2010
Subject: Re: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA

Neal,

Please see my comments attached. Nice meeting you over the phone.

Best regards,
Arnie

----- Original Message -----
From: Kemkar, Neal
To: hans.juvkam-wold@pe.tamu.edu ; bbaugh@radoil.com ; FBrett@Petroskills.com ; bea@ce.berkeley.edu ; per.holand@exprosoft.com ; Chenevert, Martin E ; Arnold Stancell
Cc: Hanley, Kallie ; Black, Steve ; Ishee, Mary Katherine
Sent: Monday, May 17, 2010 2:42 PM
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA

NAE Peer Review Panel Call with DOI 5.17.10
AGENDA

I. Introductions
   a. DOI introductions
   b. NAE Panelist Introductions

II. Overview of NAE Peer Review Panel task

III. Walk through document to be reviewed

IV. Questions from NAE Panel on document

V. Discussion on document

VI. Next steps : Panelists each submit comments on document to DOI by 9am on 5.19.10

Neal Kemkar
Office of the Secretary

U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
Sent: Sunday, May 16, 2010 2:52 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Kemkar, Neal
Subject: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern

Thank you for agreeing to participate in the NAE Peer Review Panel. We would like to convene the panel for a call tomorrow, Monday, May 17th at 5pm Eastern. Please use the following conference call number:

Call in number: [redacted]
Participant Access Code: [redacted]

Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Kemkar, Neal
To: Ford Brett; Black, Steve;
cc: Ishee, Mary Katherine; Hanley, Kallie;
Subject: RE: Brett Comments: U. S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Tuesday, May 18, 2010 1:10:08 PM

Thanks Ford. You understood correctly that your comments are to come directly to the Department of the Interior. We have received your comments and look forward to reviewing.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Tuesday, May 18, 2010 1:11 PM
To: Kemkar, Neal; Black, Steve
Cc: Ishee, Mary Katherine; Hanley, Kallie
Subject: Brett Comments: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal and Steve –

As I understand my instructions, I was NOT to send to other 'discussants'.

Attached are my Suggested Revisions (should be in purple), and my "Editorial Comments" *(shown in purple parenthetical italics)* – to explaining my thinking. These comments may be helpful in combining with other 'discussants'. Besides edits to the current recommendations, I've added unique ideas, and have highlighted the purple edits in yellow.

I've included a one page general comment at the bottom of the document, that explains my approach to the '30 day effort' as I understand it.

One comment that I didn't include: I'd say who(m?) ever came up with this original did a pretty good job to start with. I hope my contribution helps.

I'm at DC time + 6hrs – call any time at 918-408-9516 if I can be helpful, (or email fbrett@petroskills.com).

Thank you for your efforts. Please let me know if I can be of further assistance.

Sincerely,

Ford Brett
President
PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM

To: 'acstancell@[redacted]'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; Ford Brett; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; per.holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell;
cc: Hanley, Kallie; Black, Steve; Ishee, Mary Katherine;
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA
Date: Monday, May 17, 2010 2:42:55 PM

NAE Peer Review Panel Call with DOI 5.17.10
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Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
Sent: Sunday, May 16, 2010 2:52 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Kemkar, Neal
Subject: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern

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Call in number: [redacted]
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Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Black, Steve
To: Per.Holand@exprosoft.com; "hans.juvkam-wold@pe.tamu.edu"; "bbaugh@radoil.com"; "FBrett@Petroskills.com"; "bea@ce.berkeley.edu"; acstancell@[redacted]
cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie;
Subject: API Task Force Recommendations
Date: Monday, May 17, 2010 1:37:40 PM
Attachments: DRAFT JITF Recommendations.pdf
65-2_e1.pdf
IADC HSE Case Guidelines-MODU Offshore.pdf

All – in further preparation for this evening's conference call, please see the attached draft recommendations from the API task forces. I received these earlier today. Please do not distribute without permission from API.

Please contact one of us if you have any questions. Thanks for your assistance.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
To: Arnold Stancell;
cc: Hanley, Kallie; Black, Steve;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Monday, May 17, 2010 1:16:44 PM

Thanks – we received your agreement and look forward to your participation this afternoon. Kallie will send you meeting details and documents in short order.

From: Arnold Stancell [mailto:acstancell@[redacted]
Sent: Monday, May 17, 2010 12:59 PM
To: Kemkar, Neal
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal,

I was away, just returned. I have signed and faxed the confidentiality agreement to 202-208-4561. I will participate in the 5 pm EST call today.

Best regards,
Arnold

> ----- Original Message -----
> From: Kemkar, Neal
> To: 'acstancell@[redacted]
> Cc: Hanley, Kallie
> Sent: Sunday, May 16, 2010 2:31 PM
> Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
>
> Dr. Stancell – we have not heard from you yet. I just left you a voicemail along these same lines but to confirm your participation in this review, please (1) review the attached confidentiality agreement and return to this email or to fax number 1-202-208-4561 and (2) confirm your ability to participate in a 5pm eastern time call on Monday.
>
> Many thanks,
> Neal
>
> **Neal Kemkar**
>
> **Neal Kemkar**
> Office of the Secretary
> U.S. Department of the Interior
> (202) 208-5379
>
> ---
>
> **From:** Kemkar, Neal
> **Sent:** Friday, May 14, 2010 7:50 PM
> **To:** 'acstancell@[redacted]'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.

com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; 'pblair@nas.edu'
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

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I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

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Best,
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Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

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To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu;
cc: Ishee, Mary Katherine; Kemkar, Neal; Hanley, Kallie;
Subject: FW: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 10:15:31 PM
Attachments: 100516 Candidate Recommendations.doc

CONFIDENTIAL DRAFT – PREDICISIONAL
CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA

Thank you for returning signed confidentiality and non-disclosure agreements. Further to Neal's message and request below, would you kindly review and be prepared to comment on the attached draft safety recommendations during the conference call tomorrow. These proposed recommendations are compiled from several sources. They are organized in four major topic categories, and they are formatted to show clearly some specific additional recommendations from the Department of Energy (DOE).

Thanks in advance for your assistance. We look forward to our discussion tomorrow.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Bob Bea
To: Kemkar, Neal;
cc: "acstancell@[redacted] "hans.juvkam-wold@pe.tamu.edu"; "per.holland@sintef.no"; "bbaugh@radoil.com"; "mechenevert@mail.utexas.edu"; "FBrett@Petroskills.com"; Black, Steve; Hanley, Kallie; pblair@nas.edu;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 5:50:56 PM
Attachments: DOI Agreement May 15, 2010.pdf
OTC02-14293-deepwater operations HOF.pdf
Professor_Bob_Bea- CCRM Deepwater Horizon.pdf

Attached is the completed signed disclosure agreement. I have attached my summary resume.

With the assistance of my colleagues, I am preparing a short list of key elements I suggest to position the DOI - MMS as a world leader in the regulatory regimes associated with the offshore oil and gas infrastructure. I plan to send that list to you before I depart for DC early Monday morning.

Attached is a paper I published in the 2002 Proceedings of the Offshore Technology Conference that applies to the design and operation of deepwater offshore structures. The Risk Based Management (RBM) approaches and strategies have been employed by several major offshore platform and pipeline operators (e.g.Woodside Energy Ltd, Chevron, Unocal, Amoco). I think RBM should form one of the major building blocks of an advanced U.S. industry - government regulatory regime. RBM has proven to be an important part of the offshore platform and pipeline regimes implemented by the Norwegian Petroleum Directorate a the UK Health and Safety Executive.

I look forward to making contributions to this very important effort. Thank you for inviting me to help.

Bob Bea

Kemkar, Neal wrote:

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>
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>
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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--

Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Kemkar, Neal
To: "bea@ce.berkeley.edu";
cc: Hanley, Kallie; Black, Steve;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 3:18:46 PM

Thanks Bob. The spirit of the confidentiality agreement is to ensure the integrity of your involvement. You may inform/disclose to your university so long as they do not, in turn, publicly announce your involvement until after publication of the report. Thanks for understanding.

Please do join the call when you can on Monday. Safe travels.

From: Bob Bea <bea@ce.berkeley.edu>
To: Kemkar, Neal
Cc: 'acstancell@[redacted]<acstancell@msn.com>; 'hans.juvkam-wold@pe.tamu.edu' <hans.juvkam-wold@pe.tamu.edu>; 'per.holland@sintef.no' <per.holland@sintef.no>; 'bbaugh@radoil.com' <bbaugh@radoil.com>; 'mechenevert@mail.utexas.edu' <mechenevert@mail.utexas.edu>; 'FBrett@Petroskills.com' <FBrett@Petroskills.com>; Black, Steve; Hanley, Kallie; pblair@nas.edu <pblair@nas.edu>
Sent: Fri May 14 20:32:08 2010
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Happy Friday Evening Neal (and others),

i will arrive at Kennedy airport at 4:09 PM EST. i do not think i can travel from the airport to my hotel and be checked in (Embassy Suites, 900 10 th Street NW) by the time of the conference call. given that we can address my concerns regarding the non-disclosure agreement (see below), i will connect with the conference call as soon as i can from the hotel.

i will be in Washington from Monday evening through Thursday evening. i have a meeting scheduled for Tuesday. i have tentative meetings scheduled for Thursday (the Thursday PM meeting can be rescheduled). i have reserved a part of Wednesday to be service to this committee - if you want.

please let me know if you would like to meet with me - the day, time, and place.

i have scanned the non-disclosure agreement. The agreement requires that "his or her role in it is confidential." Given my understanding of my employment contract with the University of California, i think this clause could be a problem (public university).

tomorrow morning, i will carefully review the non-disclosure agreement. if i think there could be a problem, i will have to have the University Counsel review the agreement before i can sign it.

as i said earlier, i will depart California early Monday morning (8 AM). given that it is now the end of semester commencement weekend, i do not think that it will be possible for me to have the University Counsel review the agreement and revert their opinion by the deadline you have specified below.

given this situation, how do you suggest i proceed ?

i truly want to assist this effort in any way that i can.

sincerely,

Bob Bea

Kemkar, Neal wrote:

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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--

Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Benton Baugh
To: Kemkar, Neal; acstancell@[redacted] hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; mechenevert@mail.utexas.edu; FBrett@Petroskills.com; bea@ce.berkeley.edu;
cc: Black, Steve; Hanley, Kallie; pblair@nas.edu;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 12:55:14 PM
Attachments: BAUGH NON-DISCLOSURE.pdf

Neal: Let me know if this is adequate.

Regards,

Benton F. Baugh

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

The information contained in this e-mail may contain confidential or privileged mater and is intended only for the stated addressee(s). Ifyou are not a valid addressee, the use, disclosure, copying or distribution of this information is prohibited and may be unlawful. If you have received this message in error, please notify the sender immediately and delete all copies of the message from your computer.

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts

in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
To: "Per.Holand@exprosoft.com";
cc: Hanley, Kallie; Black, Steve;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 12:11:32 PM

Thanks Per. Glad you can make the call--sorry for the late hour in your time zone. Look forward to speaking on Monday.

Neal

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

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Best,
Neal

From: Bob Bea
To: Kemkar, Neal;
cc: "acstancell@[redacted] "hans.juvkam-wold@pe.tamu.edu"; "per.holland@sintef.no"; "bbaugh@radoil.com"; "mechenevert@mail.utexas.edu"; "FBrett@Petroskills.com"; Black, Steve; Hanley, Kallie; pblair@nas.edu;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Friday, May 14, 2010 8:32:12 PM

Happy Friday Evening Neal (and others),

i will arrive at Kennedy airport at 4:09 PM EST. i do not think i can travel from the airport to my hotel and be checked in (Embassy Suites, 900 10 th Street NW) by the time of the conference call. given that we can address my concerns regarding the non-disclosure agreement (see below), i will connect with the conference call as soon as i can from the hotel.

i will be in Washington from Monday evening through Thursday evening. i have a meeting scheduled for Tuesday. i have tentative meetings scheduled for Thursday (the Thursday PM meeting can be rescheduled). i have reserved a part of Wednesday to be service to this committee - if you want.

please let me know if you would like to meet with me - the day, time, and place.

i have scanned the non-disclosure agreement. The agreement requires that "his or her role in it is confidential." Given my understanding of my employment contract with the University of California, i think this clause could be a problem (public university).

tomorrow morning, i will carefully review the non-disclosure agreement. if i think there could be a problem, i will have to have the University Counsel review the agreement before i can sign it.

as i said earlier, i will depart California early Monday morning (8 AM). given that it is now the end of semester commencement weekend, i do not think that it will be possible for me to have the University Counsel review the agreement and revert their opinion by the deadline you have specified below.

given this situation, how do you suggest i proceed ?

i truly want to assist this effort in any way that i can.

sincerely,

Bob Bea

Kemkar, Neal wrote:

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Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services

60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Kemkar, Neal
To: per.holand@exprosoft.com;
cc: Hanley, Kallie; Black, Steve;
Subject: FW: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Friday, May 14, 2010 7:54:02 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

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If you have any questions, please feel free to contact me directly on this email.

Best,

Neal

From: Kemkar, Neal
To: "acstancell@[redacted]"hans.juvkam-wold@pe.tamu.edu"; "per.holland@sintef.no"; "bbaugh@radoil.com"; "mechenevert@mail.utexas.edu"; "FBrett@Petroskills.com"; "bea@ce.berkeley.edu";
cc: Black, Steve; Hanley, Kallie; pblair@nas.edu;
Subject: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Friday, May 14, 2010 7:50:07 PM
Attachments: Peer Review - Consultant NonDisclosureAgtFINAL.PDF

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

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Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
To: Bob Bea;
cc: Blair, Peter; Kemkar, Neal; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Friday, May 14, 2010 10:25:50 AM

Thanks Bob.

I will discuss with folks here this afternoon and get back to you by this evening.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Bob Bea [mailto:bea@ce.berkeley.edu]
Sent: Friday, May 14, 2010 10:18 AM
To: Hanley, Kallie
Cc: Blair, Peter; Kemkar, Neal; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Happy Friday Kallie,

here is link to radio interview i did on development of the Deepwater Horizon blowout :

http://www.webwiseforradio.com/site_files/244/File/INO_051210_H3.mp3

please let me know as soon as you can if i could be useful next week on Wednesday or Thursday afternoon (Thursday morning now scheduled for another meeting).

Bob Bea

Hanley, Kallie wrote:
Dr. Bea

Thank you for your willingness to participate and share your depth of knowledge. We will be in touch in the very near future.

Best,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Bob Bea [mailto:bea@ce.berkeley.edu]
Sent: Wednesday, May 12, 2010 9:39 AM
To: Blair, Peter
Cc: Kemkar, Neal; Hanley, Kallie; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Happy Wednesday Peter.

Thank you for the invitation. I will be pleased to serve as a discussant.

As this very important process continues to develop, I will be pleased to help when, where, and how I can be most effective. I and my colleagues in academia, industry, and government see this disaster as a very important opportunity to help this vital public - governmental - industrial - environmental enterprise take major steps forward to continue to develop this precious natural resource in ways that meet our stewardship responsibilities.

Earlier this year, the University of California granted me a sabbatical leave for the 2010 Fall semester. Currently, we are concluding our 2010 Spring semester. Thus I will be on academic leave during the period May 16 through January 18, 2011. This academic leave period will make available much more time for me to help with this important work.

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ccrm.berkeley.edu/resin/).

Shortly after I became engaged in this disaster (7 PM April 20th by former students engaged in all parts of the Gulf Coast oil and gas industry), I turned to my CCRM colleagues and asked for their help. The present director of CCRM, Professor Karlene Roberts (career expert in High Reliability Organizations), has agreed to help form that group. Karlene and I have served as RAM consultants to the international oil and gas industry, including British Petroleum and the U.S. Minerals Management Service. Also, I have asked my colleagues in the international oil and gas industry for their help. Many of these colleagues have agreed to help with this work. This group is being formed to support our research to help investigate causes for the failures and successes associated with the Deepwater Horizon drilling unit and the subsequent containment and clean-up operations. As in the case of our investigation of the Hurricane Katrina flood protection failures, we plan to address ways to help improve our stewardship responsibilities for U.S. offshore oil and gas resources. Again, we are turning to the NSF to provide funds to help defray expenses associated with this work.

Sincerely,

Bob Bea

Blair, Peter wrote:
Dear Dr. Bea:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore

drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you. Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

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Professor Robert Bea, PhD, PE
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Home Office
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Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Hanley, Kallie
To: Arnold Stancell; Blair, Peter;
cc: Kemkar, Neal; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:22:08 PM

Mr. Stancell,

Thank you for your willingness to participate and share your depth of knowledge. We will be in touch soon.

Best,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Arnold Stancell [mailto:acstancell@msn.com]
Sent: Wednesday, May 12, 2010 10:41 AM
To: Blair, Peter
Cc: Kemkar, Neal; Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Dear Peter,

I look forward to hearing from DOI.

Best regards,
Arnold

> ----- Original Message -----
> From: Blair, Peter
> To: 'acstancell@[redacted]
> Cc: 'Kemkar, Neal' ; Hanley, Kallie ; Black, Steve
> Sent: Wednesday, May 12, 2010 7:37 AM
> Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
>
> Dear Arnold:
>
> I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Hanley, Kallie
To: Bob Bea; Blair, Peter;
cc: Kemkar, Neal; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:21:19 PM

Dr. Bea

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Best,

Kallie Hanley
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The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

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As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you. Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director

Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

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Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Hanley, Kallie
To: Ford Brett; Blair, Peter;
cc: Kemkar, Neal; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:20:39 PM

Mr. Brett

Thank you for your willingness to participate and share your depth of knowledge. We will be in touch in the very near future to set something up.

Best,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

-----Original Message-----
From: Ford Brett [mailto:FBrett@PetroSkills.com]
Sent: Wednesday, May 12, 2010 8:13 AM
To: Blair, Peter
Cc: Kemkar, Neal; Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Dr Blair -

I would be honored to participate - I'd certainly do my best to help understand the cause, and how to prevent regretable incidents like this in the future.

Please let me know how I may be able to help.

Sincerely,

Ford Brett

(m) +1 918 408 9516

On May 12, 2010, at 6:34 AM, "Blair, Peter" <PBlair@nas.edu> wrote:

> Dear Mr. Brett:
>

>
>
> I am writing to alert you that you may be asked by the U.S.
> Department of Interior (DOI), Office of the Secretary, to provide
> brief but important service with regard to the Department's
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> serious consideration to participating.
>
>
>
> With best wishes,
>
>
>
> Peter D. Blair, Ph.D.
>
> Executive Director
>
> Division on Engineering and Physical Sciences
>
> The National Academies
>
> 500 Fifth Street, N.W.
>
> Washington, DC 20001
>
> Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373
>
>

From: Roxanne Makasdjian
To: Bob Bea; Blair, Peter;
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve; Sarah Yang; Karlene Roberts; rsanders@berkeley.edu;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 12:20:33 PM

Thank you, Bob. This information is useful for our media relations work on your behalf, too.

Sincerely,

Roxanne Makasdjian
Manager, Broadcast Communications
UC Berkeley Media Relations
2200 Bancroft Way, 4204
Berkeley, CA 94720-4204
(510) 642-6051
roxannem@berkeley.edu

From: Bob Bea [mailto:bea@ce.berkeley.edu]
Sent: Wednesday, May 12, 2010 6:39 AM
To: Blair, Peter
Cc: 'Kemkar, Neal'; Hanley, Kallie; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Happy Wednesday Peter.

Thank you for the invitation. I will be pleased to serve as a discussant.

As this very important process continues to develop, I will be pleased to help when, where, and how I can be most effective. I and my colleagues in academia, industry, and government see this disaster as a very important opportunity to help this vital public - governmental - industrial - environmental enterprise take major steps forward to continue to develop this precious natural resource in ways that meet our stewardship responsibilities.

Earlier this year, the University of California granted me a sabbatical leave for the 2010 Fall semester. Currently, we are concluding our 2010 Spring semester. Thus I will be on academic leave during the period May 16 through January 18, 2011. This academic leave period will make available much more time for me to help with this important work.

During the early days following the initiation of our investigation of the failures of the flood protection system for the Greater New Orleans Area, we formed the Center for Catastrophic Risk Management (CCRM) at the University of California, Berkeley (http://ccrm.berkeley.edu/). CCRM served as the home for our 2 year National Science Foundation (NSF) sponsored Independent Levee Investigation Team activities. CCRM is a collation of highly qualified interdisciplinary academics and practitioners. During the past 2 years, members of this group have focused on a NSF research project on development of advanced Risk Assessment and Management (RAM) based approaches to enhance the resilience and sustainability of California's Sacramento and San Joaquin Delta infrastructure systems (http://ccrm.berkeley.edu/resin/).

Shortly after I became engaged in this disaster (7 PM April 20th by former students engaged in all parts of the Gulf Coast oil and gas industry), I turned to my CCRM colleagues and asked for their help. The present director of CCRM, Professor Karlene Roberts (career expert in High Reliability Organizations), has agreed to help form that group. Karlene and I have served as RAM consultants to the international oil and gas industry, including British Petroleum and the U.S. Minerals Management Service. Also, I have asked my colleagues in the international oil and gas industry for their help. Many of these colleagues have agreed to help with this work. This group is being formed to support our research to help investigate causes for the failures and successes associated with the Deepwater Horizon drilling unit and the subsequent containment and clean-up operations. As in the case of our investigation of the Hurricane Katrina flood protection failures, we plan to address ways to help improve our stewardship responsibilities for U.S. offshore oil and gas resources. Again, we are turning to the NSF to provide funds to help defray expenses associated with this work.

Sincerely,

Bob Bea

Blair, Peter wrote:
Dear Dr. Bea:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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With best wishes,

Peter D. Blair, Ph.D.
Executive Director

Division on Engineering and Physical Sciences
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500 Fifth Street, N.W.
Washington, DC 20001
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Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Blair, Peter
To: "acstancell@[redacted]
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:38:47 AM

Dear Arnold:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "hans.juvkam-wold@pe.tamu.edu";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:38:14 AM

Dear Juvkam-Wold:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "per.holland@sintef.no";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:36:22 AM

Dear Holland:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "mechenevert@mail.utexas.edu";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:35:38 AM

Dear Dr. Chenevert:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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Peter D. Blair, Ph.D.
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Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "FBrett@Petroskills.com";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:34:00 AM

Dear Mr. Brett:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "bea@ce.berkeley.edu";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:32:02 AM

Dear Dr. Bea:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

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With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Blair, Peter
To: "bbaugh@radoil.com";
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:31:03 AM

Dear Dr. Baugh:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you.

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With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Hanley, Kallie
To: Per.Holand@exprosoft.com;
cc: McCammon, Joanne; Black, Steve; Ishee, Mary Katherine; Hauser, William;
Subject: RE: Email message from Per Holand
Date: Friday, May 07, 2010 5:52:10 PM

Per

I work with Bill Hauser. Please contact me so we can set something up.

Best Regards,

Kallie

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
202-208-5397 (desk)
202-374-7694 (cell)
kallie_hanley@ios.doi.gov

From: Hauser, William [mailto:William.Hauser@mms.gov]
Sent: Friday, May 07, 2010 5:27 PM
To: Ishee, Mary Katherine; Black, Steve
Cc: Hanley, Kallie; McCammon, Joanne JMc
Subject: Email message from Per Holand

William Hauser
Acting Chief, Office of Offshore Regulatory Programs
Offshore Energy and Minerals Management
Minerals Management Service
Department of the Interior
703 787-1613
william.hauser@mms.gov

From: Per Holand [mailto:Per.Holand@exprosoft.com]
Sent: Wednesday, April 28, 2010 12:51 AM
To: Hauser, William
Subject: BOPs and Blowouts

Bill,

The last week blowout in the US GoM was not what we wanted. Beside the tragic loss of lives, I assume that this will make it more difficult to drill in more vulnerable areas in the US as well as it also will be here in Norway. There is presently a big political and public debate related to drilling in the Norwegian Lofoten area (west of the northern part of Norway).

This is the first drilling blowout with a major spill in the US OCS area, Norwegian waters and UK waters since 1980.

Since I still am dealing with blowouts and BOPs I also have a professional interest in the incident.

Firstly, I am curious to find out what really happened on Deepwater Horizon. As always in such accidents there are several contributing causes that affect the development of an incident, both human and technical aspects. I do only have access to the public information, and from that information it seems that a malfunctioning BOP have played a major role.

As I understand they have taken a kick, but not been able to close the BOP. Since the riser was holding the rig in place and that the flow came through the riser it does not seem that the loss of BOP control is related to the riser attached control or hydraulic lines. I then suspect that there may have been a hydraulic leak subsea that has affected the operability of both pods. In the study I carried out for you in the late 90-ties some of the multiplex system had some weaknesses in the hydraulic system. It may also be software related or design related.

As you know in Norway it is mandatory to have an acoustic back-up system for subsea BOPs. I think it is mandatory in Canada as well. It is also frequently used in Brazil and in the UK, but I do not know if it is mandatory. As I understand an acoustic backup system could have been used to stop the flow. In my opinion acoustic backup systems also should have been mandatory in the US as well, especially for DP rigs.

Are you able to confirm some of my assumptions?

I assume that there will be a thorough investigation after this incident. I am still responsible for the SINTEF Offshore Blowout Database, although it is 9 years since I left SINTEF. If there is any need for any studies related to historic blowout occurrences I may assist you. Further, this incident may make people wonder how reliable the subsea BOPs are. I have not done any comprehensive study since I worked for you the last time. I have not seen any results from the West

Engineering study that was launched by the US industry in 2007. I would be interested in more or less repeating the 1999 study. It should be possible to involve other areas as Norway, UK and Brazil as well.

Please let me know if this is of any further interest.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Per Holand
To: Hanley, Kallie;
cc: McCammon, Joanne; Black, Steve; Ishee, Mary Katherine; Hauser, William; Einar Molnes;
Subject: RE: Email message from Per Holand
Date: Monday, May 10, 2010 9:14:04 AM

Kallie
Thanks for the E-mail.

I would be very pleased to assist you on this matter. I do however not know what type of assistance you are seeking at the present time.

From the top of my head I have listed some different tasks where I can contribute;

- Participate in incident investigation, with focus on the BOP problems, and put these problems in a perspective of the previous BOP reliability results and ensure that lessons learned are reflected in the proposed revision of the regulations.
- Highlight and justify important BOP reliability matters that after this incident should be reflected in proposed revision of the regulations. This would primarily be based on earlier studies related to BOP reliability, typically;
    - Acoustic backup systems
    - Alternative hydraulic access points on the BOP stack that can be accessed by ROVs
    - Two blind shear rams in subsea BOP stack
    - More explicit demands related to redundancy in the yellow and blue pod
    - Blind shear rams on fixed installations
    - Etc
- Investigation of subsea BOP control systems used for several rigs in the US GoM. This is based on the findings in the previous BOP study that showed some of the multiplex control systems had weak points in the hydraulics system that could cause the total loss of BOP control.
- Investigate present reliability status of subsea BOPs (comprehensive study like the study in 1999). This could be a JIP inviting deepwater operators from the US GoM OCS and other areas to participate.
- Blowout probability analysis based on blowout experience in North Sea and US GoM since 1980. This to enlighten and quantify experienced risk in the oil and gas industry to put the incident in perspective.

There are probably other areas where I also may be able to assist. If you need my assistance I will put other activities aside and give you the priority.

Below my signature I briefly described some of my background related to BOPs and blowouts.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

A bit about my background:

I am currently a senior risk and reliability consultant with ExproSoft – a Norwegian company specializing on risk and reliability assessment for the oil and gas industry.

As Bill probably told you I worked with the MMS approximately 10 years ago, analyzing deepwater subsea BOP reliability and deepwater kicks. These studies resulted in two reports (Tar project 319 and 383). The 319 project was also reported in a SPE paper (SPE 66186). These three documents are in the public domain, so findings in these studies have been available for the Worldwide oil and gas industry. Prior to the work for MMS I had worked with BOP reliability in several studies, mostly for operators in the North Sea, but also for the Norwegian Petroleum Directorate, Petrobras (Brazilian) and Agip (Italian)

Since 1990 I have been responsible for the SINTEF Offshore Blowout Database. When I left SINTEF in 2001 I was subcontracted by SINTEF to continue the work with the blowout database. This database is the basis for all blowout related risk analyses that are carried out here in Norway. It is also used in other areas of the

world.

I have used the above knowledge in a variety of studies for operators when analyzing various BOP concepts, blowout risk for certain area and other studies. Results from such studies are typically;

- *Mapping of the risk*
- *Recommendations to reduce the risk*
- *Recommendations to increase the efficiency*

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: 7. mai 2010 23:52
To: Per Holand
Cc: McCammon, Joanne JMc; Black, Steve; Ishee, Mary Katherine; Hauser, William
Subject: RE: Email message from Per Holand

Per

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Best Regards,

Kallie

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
202-208-5397 (desk)
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William Hauser
Acting Chief, Office of Offshore Regulatory Programs
Offshore Energy and Minerals Management
Minerals Management Service
Department of the Interior
703 787-1613
william.hauser@mms.gov

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Please let me know if this is of any further interest.

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Per Holand
Senior Consultant, Ph.D.

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Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Elmer Danenberger
To: Kemkar, Neal;
Subject: RE: Thank you Bud and further engagement
Date: Tuesday, May 11, 2010 7:12:05 PM

Thanks Neal. I enjoyed talking to you.

I received your message and will call you tomorrow morning if that is okay. I have a telecon with some Canadian regulators at 0900. I could call you before that at 0830 or after at 1000. If I don't hear from you otherwise, I will call at 1000.

bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 6:27 PM
To: edanenberger@[redacted]
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Bud and further engagement

Bud – thanks very much for coming to share your thoughts with us earlier this afternoon. Very impressive and very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at your home number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ford Brett
To: Blair, Peter;
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 8:10:14 AM

Dr Blair -

I would be honored to participate - I'd certainly do my best to help understand the cause, and how to prevent regretable incidents like this in the future.

Please let me know how I may be able to help.

Sincerely,

Ford Brett

(m) +1 918 408 9516

On May 12, 2010, at 6:34 AM, "Blair, Peter" <PBlair@nas.edu> wrote:

> Dear Mr. Brett:
>
>
>
> I am writing to alert you that you may be asked by the U.S.
> Department of Interior (DOI), Office of the Secretary, to provide
> brief but important service with regard to the Department's
> formulation of an early action plan in response to the oil blowout
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> entirely up to you, but if you are available, I hope you will give
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>
>
>
> With best wishes,
>
>
>
> Peter D. Blair, Ph.D.
>
> Executive Director

>
> Division on Engineering and Physical Sciences
>
> The National Academies
>
> 500 Fifth Street, N.W.
>
> Washington, DC 20001
>
> Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373
>
>

From:	Bob Bea
To:	Blair, Peter;
cc:	Kemkar, Neal; Hanley, Kallie; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts;
Subject:	Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date:	Wednesday, May 12, 2010 9:39:33 AM

Happy Wednesday Peter.

Thank you for the invitation. I will be pleased to serve as a discussant.

As this very important process continues to develop, I will be pleased to help when, where, and how I can be most effective. I and my colleagues in academia, industry, and government see this disaster as a very important opportunity to help this vital public - governmental - industrial - environmental enterprise take major steps forward to continue to develop this precious natural resource in ways that meet our stewardship responsibilities.

Earlier this year, the University of California granted me a sabbatical leave for the 2010 Fall semester. Currently, we are concluding our 2010 Spring semester. Thus I will be on academic leave during the period May 16 through January 18, 2011. This academic leave period will make available much more time for me to help with this important work.

During the early days following the initiation of our investigation of the failures of the flood protection system for the Greater New Orleans Area, we formed the Center for Catastrophic Risk Management (CCRM) at the University of California, Berkeley (http://ccrm.berkeley.edu/). CCRM served as the home for our 2 year National Science Foundation (NSF) sponsored Independent Levee Investigation Team activities. CCRM is a collation of highly qualified interdisciplinary academics and practitioners. During the past 2 years, members of this group have focused on a NSF research project on development of advanced Risk Assessment and Management (RAM) based approaches to enhance the resilience and sustainability of California's Sacramento and San Joaquin Delta infrastructure systems (http://ccrm.berkeley.edu/resin/).

Shortly after I became engaged in this disaster (7 PM April 20th by former students engaged in all parts of the Gulf Coast oil and gas industry), I turned to my CCRM colleagues and asked for their help. The present director of CCRM, Professor Karlene Roberts (career expert in High

Reliability Organizations), has agreed to help form that group. Karlene and I have served as RAM consultants to the international oil and gas industry, including British Petroleum and the U.S. Minerals Management Service. Also, I have asked my colleagues in the international oil and gas industry for their help. Many of these colleagues have agreed to help with this work. This group is being formed to support our research to help investigate causes for the failures and successes associated with the Deepwater Horizon drilling unit and the subsequent containment and clean-up operations. As in the case of our investigation of the Hurricane Katrina flood protection failures, we plan to address ways to help improve our stewardship responsibilities for U.S. offshore oil and gas resources. Again, we are turning to the NSF to provide funds to help defray expenses associated with this work.

Sincerely,

Bob Bea

Blair, Peter wrote:

> Dear Dr. Bea:
>
> I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.
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With best wishes,

Peter D. Blair, Ph.D.
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Division on Engineering and Physical Sciences
The National Academies
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--

Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Arnold Stancell
To: Blair, Peter;
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: Re: U.
S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 10:40:56 AM

Dear Peter,

I look forward to hearing from DOI.

Best regards,
Arnold

> ----- Original Message -----
> From: Blair, Peter
> To: 'acstancell@[redacted]
> Cc: 'Kemkar, Neal' ; Hanley, Kallie ; Black, Steve
> Sent: Wednesday, May 12, 2010 7:37 AM
> Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
>
> Dear Arnold:
>
> I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.
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With best wishes,

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From: Juvkam-Wold, Hans
To: Blair, Peter;
cc: Kemkar, Neal; Hanley, Kallie; Black, Steve;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 12:30:55 PM

Dear All,

I retired from Texas A&M in August, 2009 after 24 years of teaching drilling engineering to undergraduate and graduate students, and doing research in many areas of drilling, including well design, well control and blowout prevention, from on-shore to deepwater. Prior to joining Texas A&M I worked for Gulf Oil Corporation for more than 20 years.

The easiest way to contact me is usually by email, since I am not always close to a phone.

Office: juvkam-wold@tamu.edu 979-845-4093
Home: [redacted] [redacted]

My educational background includes SB, SM and ScD degrees in Mechanical Engineering from MIT. I have written dozens of papers on drilling and have seven patents, including four on deepwater drilling.

Since I am now a Professor Emeritus at Texas A&M I usually have a lot of time available, and I would be more than happy to contribute to making deepwater drilling more safe. However, I will be outside the US from May 20 to June 7 and again from July 9 to July 20. During that time I'll be checking my email daily. Outside of any regularly scheduled meetings I'll still be available to review and provide comments on draft recommendations. I would like to help and believe that I have a lot to offer.

Hans Juvkam-Wold

From: Blair, Peter [mailto:PBlair@nas.edu]
Sent: Wednesday, May 12, 2010 6:36 AM
To: Juvkam-Wold, Hans
Cc: 'Kemkar, Neal'; Hanley, Kallie; Black, Steve
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Dear Juvkam-Wold:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you. Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Ken Arnold
To: Kemkar, Neal;
Subject: RE: Thank you Ken and further engagement
Date: Wednesday, May 12, 2010 7:05:45 PM

Neal

I left a phone message last night. I can be reached on my cell phone if you need me.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 5:35 PM
To: karnold@karnoldconsulting.com
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Ken and further engagement

Ken – thanks again for sharing your thoughts with us on the phone. Very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at your office number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
To: Juvkam-Wold, Hans; juvkamwold@gmail.com;
cc: Kemkar, Neal; Black, Steve; Blair, Peter;
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Wednesday, May 12, 2010 7:27:30 PM

Mr. Juvkam-Wold

Thank you for your willingness to participate and share your depth of knowledge. We will be in touch soon.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Juvkam-Wold, Hans [mailto:juvkam-wold@pe.tamu.edu]
Sent: Wednesday, May 12, 2010 12:30 PM
To: Blair, Peter
Cc: Kemkar, Neal; Hanley, Kallie; Black, Steve
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Dear All,

I retired from Texas A&M in August, 2009 after 24 years of teaching drilling engineering to undergraduate and graduate students, and doing research in many areas of drilling, including well design, well control and blowout prevention, from on-shore to deepwater. Prior to joining Texas A&M I worked for Gulf Oil Corporation for more than 20 years.

The easiest way to contact me is usually by email, since I am not always close to a phone.

Office: juvkam-wold@tamu.edu 979-845-4093
Home: [redacted] [redacted]

My educational background includes SB, SM and ScD degrees in Mechanical Engineering from MIT. I have written dozens of papers on drilling and have seven patents, including four on deepwater drilling.

Since I am now a Professor Emeritus at Texas A&M I usually have a lot of time available, and I would be more than happy to contribute to making deepwater drilling more safe. However, I will be outside the US from May 20 to June 7 and again from July 9 to July 20. During that time I'll be checking my email daily. Outside of any regularly scheduled meetings I'll still be available to review and provide comments on draft recommendations. I would like to help and believe that I have a lot to offer.

Hans Juvkam-Wold

From: Blair, Peter [mailto:PBlair@nas.edu]
Sent: Wednesday, May 12, 2010 6:36 AM
To: Juvkam-Wold, Hans
Cc: 'Kemkar, Neal'; Hanley, Kallie; Black, Steve
Subject: RE: U.S. Department of Interior Reviews of Deepwater Horizon Incident

Dear Juvkam-Wold:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the

National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you. Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

From: Bob Bea
To: Hanley, Kallie;
cc: Blair, Peter; Kemkar, Neal; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts;
Subject: Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident
Date: Friday, May 14, 2010 10:18:56 AM

Happy Friday Kallie,

here is link to radio interview i did on development of the Deepwater Horizon blowout :

http://www.webwiseforradio.com/site_files/244/File/INO_051210_H3.mp3

please let me know as soon as you can if i could be useful next week on Wednesday or Thursday afternoon (Thursday morning now scheduled for another meeting).

Bob Bea

Hanley, Kallie wrote:

> Dr. Bea
>
> Thank you for your willingness to participate and share your depth of knowledge. We will be in touch in the very near future.
>
> Best,
>
> Kallie Hanley
> Office of the White House Liaison
> The U.S. Department of the Interior
> desk: (202) 208-5397 | cell: (202) 374-7694
> kallie_hanley@ios.doi.gov
>
> **From:** Bob Bea [mailto:bea@ce.berkeley.edu]
> **Sent:** Wednesday, May 12, 2010 9:39 AM
> **To:** Blair, Peter
> **Cc:** Kemkar, Neal; Hanley, Kallie; Black, Steve; Roxanne Makasdjian; Sarah Yang; Karlene Roberts
> **Subject:** Re: U.S. Department of Interior Reviews of Deepwater Horizon Incident
>
> Happy Wednesday Peter.

Thank you for the invitation. I will be pleased to serve as a discussant.

As this very important process continues to develop, I will be pleased to help when, where, and how I can be most effective. I and my colleagues in academia, industry, and government see this disaster as a very important opportunity to help this vital public - governmental - industrial - environmental enterprise take major steps forward to continue to develop this precious natural resource in ways that meet our stewardship responsibilities.

Earlier this year, the University of California granted me a sabbatical leave for the 2010 Fall semester. Currently, we are concluding our 2010 Spring semester. Thus I will be on academic leave during the period May 16 through January 18, 2011. This academic leave period will make available much more time for me to help with this important work.

During the early days following the initiation of our investigation of the failures of the flood protection system for the Greater New Orleans Area, we formed the Center for Catastrophic Risk Management (CCRM) at the University of California, Berkeley (http://ccrm.berkeley.edu/). CCRM served as the home for our 2 year National Science Foundation (NSF) sponsored Independent Levee Investigation Team activities. CCRM is a collation of highly qualified interdisciplinary academics and practitioners. During the past 2 years, members of this group have focused on a NSF research project on development of advanced Risk Assessment and Management (RAM) based approaches to enhance the resilience and sustainability of California's Sacramento and San Joaquin Delta infrastructure systems (http://ccrm.berkeley.edu/resin/).

Shortly after I became engaged in this disaster (7 PM April 20th by former students engaged in all parts of the Gulf Coast oil and gas industry), I turned to my CCRM colleagues and asked for their help. The present director of CCRM, Professor Karlene Roberts (career expert in High Reliability Organizations), has agreed to help form that group. Karlene and I have served as RAM consultants to the international oil and gas industry, including British Petroleum and the U.S. Minerals Management Service. Also, I have asked my colleagues in the international oil and gas industry for their help.

Many of these colleagues have agreed to help with this work. This group is being formed to support our research to help investigate causes for the failures and successes associated with the Deepwater Horizon drilling unit and the subsequent containment and clean-up operations. As in the case of our investigation of the Hurricane Katrina flood protection failures, we plan to address ways to help improve our stewardship responsibilities for U.S. offshore oil and gas resources. Again, we are turning to the NSF to provide funds to help defray expenses associated with this work.

Sincerely,

Bob Bea

Blair, Peter wrote:
Dear Dr. Bea:

I am writing to alert you that you may be asked by the U.S. Department of Interior (DOI), Office of the Secretary, to provide brief but important service with regard to the Department's formulation of an early action plan in response to the oil blowout at Deepwater Horizon.

As you are no doubt now aware, the oil well blowout at Deepwater Horizon has generated many questions about offshore drilling safety and blowout prevention. In the wake of the incident, The Offshore Drilling Interim Safety Measures Report ("30-Day Safety Report") ordered by President Obama on April 30, 2010, requests Interior Secretary Salazar to review and report what, if any, additional precautions and technologies should be required to prevent accidents like the Deepwater Horizon incident from happening again. The Report will include a discussion of known legal and regulatory requirements as well as current industry practices. It will focus on recommendations for interim measures that will increase offshore drilling safety, including but not limited to engineering and operating practices aimed at reducing the chance of a future blowout and the appropriate testing and operation of backup safety equipment such as blowout preventers. The Report will also include an action plan for moving forward on achieving increased offshore

drilling safety in the near term, including suggested additional study. This Report is not a full investigation of the incident—such an investigation will be undertaken jointly by the Minerals Management Service and U.S. Coast Guard and Secretary Salazar intends to commission an independent technical assessment by the National Academy of Engineering (NAE).

In the course of preliminary discussions directed toward commissioning the NAE assessment, DOI officials asked that we at the Academy identify a number of recognized academic and industry experts in the relevant fields to (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in the 30-Day Safety Report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, we generated a list of recommended experts, including you. Although this discussion will be convened directly by the Office of the Secretary of the Interior, not by the National Academies, we have recommended that the DOI consider you as a discussant. In the coming days DOI officials copied on this message will be following up directly with you to explore your availability. Whether you agree to help DOI or not is, of course, entirely up to you, but if you are available, I hope you will give serious consideration to participating.

With best wishes,

Peter D. Blair, Ph.D.
Executive Director
Division on Engineering and Physical Sciences
The National Academies
500 Fifth Street, N.W.
Washington, DC 20001
Email: pblair@nas.edu; Tel: 202-334-2400; Fax: 202-334-3373

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

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Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Ken Arnold
To: Kemkar, Neal;
Subject: RE: Thank you Ken and further engagement
Date: Friday, May 14, 2010 6:20:22 PM
Attachments: KACI Ratesheet.doc

As discussed

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 12, 2010 6:10 PM
To: Ken Arnold
Subject: RE: Thank you Ken and further engagement

Thanks Ken. Steve was in Houston today and we are scheduled to discuss this tomorrow. I will get back in touch.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, May 12, 2010 7:06 PM
To: Kemkar, Neal
Subject: RE: Thank you Ken and further engagement

Neal

I left a phone message last night. I can be reached on my cell phone if you need me.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 5:35 PM
To: karnold@karnoldconsulting.com
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Ken and further engagement

Ken – thanks again for sharing your thoughts with us on the phone. Very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at your office number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Elmer Danenberger
To: Kemkar, Neal;
cc: Black, Steve; Hanley, Kallie;
Georg, Shanda;
Subject: RE: Thank you Bud and further engagement
Date: Friday, May 14, 2010 7:57:40 PM

Neal,

Because I am very cautious about contract and ethics issues, I spoke to the Contract Officer (CO) and requested her guidance. She asked that I not sign any documents until she has transmitted them for my consideration. She also advised that I should receive written ethics clearance (email from Ethics Officer is okay) before signing any documents.

Thanks.

Bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 7:14 PM
To: Elmer Danenberger
Cc: Black, Steve; Hanley, Kallie
Subject: RE: Thank you Bud and further engagement

Bud – good to talk to you. Look forward to our collaboration.

As discussed, please review and return the attached non disclosure agreement.
My return fax number is 202.208.4561

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Elmer Danenberger [mailto:edanenberger@[redacted]
Sent: Tuesday, May 11, 2010 7:12 PM
To: Kemkar, Neal

Subject: RE: Thank you Bud and further engagement

Thanks Neal. I enjoyed talking to you.

I received your message and will call you tomorrow morning if that is okay. I have a telecon with some Canadian regulators at 0900. I could call you before that at 0830 or after at 1000. If I don't hear from you otherwise, I will call at 1000.

bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 6:27 PM
To: edanenberger@[redacted]
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Bud and further engagement

Bud – thanks very much for coming to share your thoughts with us earlier this afternoon. Very impressive and very helpful set of ideas you presented. I just mentioned this in more detail on a voicemail at your home number to the same effect, but I'd like to speak with you further about your engagement on this project when you have a moment. Please call me at your earliest convenience at the below number.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold
To: Kemkar, Neal;
Subject: RE: Thank you Ken and further engagement
Date: Friday, May 14, 2010 8:11:03 PM

I faxed it back to you but this was the first time I used my fax machine Let me know if you got it.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:16 PM
To: Ken Arnold
Cc: Black, Steve; Hanley, Kallie
Subject: RE: Thank you Ken and further engagement

Thanks Ken – good to talk to you. Looking forward to our collaboration.

As discussed, please review and return the attached non disclosure agreement.
My return fax number is 202.208.4561

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Friday, May 14, 2010 6:20 PM
To: Kemkar, Neal
Subject: RE: Thank you Ken and further engagement

As discussed

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Wednesday, May 12, 2010 6:10 PM
To: Ken Arnold
Subject: RE: Thank you Ken and further engagement

Thanks Ken. Steve was in Houston today and we are scheduled to discuss this tomorrow. I will get back in touch.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold [mailto:karnold@karnoldconsulting.com]
Sent: Wednesday, May 12, 2010 7:06 PM
To: Kemkar, Neal
Subject: RE: Thank you Ken and further engagement

Neal

I left a phone message last night. I can be reached on my cell phone if you need me.

Ken

Kenneth E. (Ken) Arnold
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Houston, TX 77043
Cell: 832-212-0160

Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 11, 2010 5:35 PM
To: karnold@karnoldconsulting.com
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: Thank you Ken and further engagement

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Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
To: Kemkar, Neal;
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Date: Friday, May 14, 2010 8:23:53 PM

Yeah I saw. Nice.

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Kemkar, Neal
Sent: Friday, May 14, 2010 8:23 PM
To: Hanley, Kallie
Subject: Fw: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Importance: High

FYI

From: shanda.georg@aqd.nbc.gov <shanda.georg@aqd.nbc.gov>
To: karnold@karnoldconsulting.com <karnold@karnoldconsulting.com>
Sent: Fri May 14 20:22:31 2010
Subject: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support

Dear Mr. Arnold,

The department of Interior is interested in contracting with Ken Arnold Consulting, Inc. to obtain your expertise in the performance of a peer review of the Outer Continental Shelf Safety Oversight Board Report which will provide recommendations to the President of the United States Concerning the Deep Water event. This is a request for a Labor Hour Quote.

Attached is a statement of work for your consideration. Please provide a Firm Fixed price quote no later than Monday, 17th to me, at my email address: shanda.georg@aqd.nbc.gov.

I have also attached a non-disclosure form to be returned to me with the FFP quote. All documents are to be returned to the contracting officer.

This is a commercial acquisition, performed under Far Part 12 and in accordance with Far Part 13 Guidance.

FAR clauses 52.212-1; 52.212-2; 52.212-3; 52.212-4; and 52.212-5 apply.

Please reference RFQ Number N10PX18335 on your quote - The quote is to be submitted as a Labor Hour Quote.

If you have any questions, please put them in writing and send them to me and if I am unable to provide a response, I will forward to the program office for a response.

Should you need additional time please let me know. My contact information is below. I will be in the office on Saturday around 10:30 EST.

Best regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Ford Brett
To: Kemkar, Neal;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Friday, May 14, 2010 9:41:48 PM

Neal –

I've signed the agreement and faxed it to you. The fax seemed to go thru from my end. Let me know if there was a problem.

Also, please let me know the number for the conference call.

In my work with the current National Academy of Engineering MMS offshore inspection improvement project, I have disclosed possible or perceived conflicts. Briefly, my company (PetroSkills) offers some 200 technical courses in >1000 different sessions in the area of petroleum technology. The MMS and BP send participants to these courses. In 2009 the MMS accounted for 0.4% of our participants, and BP accounted for ~6% of our participants. BP and Chevron, however, have their own 'drilling training alliance' and do not materially participate in our drilling training programs. I'll be happy to provide more information if you would like.

Thank you for the opportunity to help on this matter, and I will do my best to help.

Sincerely,

Ford Brett
PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; Ford Brett; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and

(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ken Arnold
To: Georg, Shanda;
cc: Kemkar, Neal;
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Date: Friday, May 14, 2010 9:57:31 PM
Attachments: KACI Ratesheet.doc

Shanda

Thank you for considering me for this very important and interesting assignment. However, I don't think it is appropriate to contract for professional engineering services on a fixed price basis. Indeed it may even violate Federal rules. Therefore, I must decline your kind offer to hire me.

Attached is a rate sheet for my services if you would like to reconsider.

For future reference please note the name of my company, K Arnold Consulting, Inc.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: shanda.georg@aqd.nbc.gov [mailto:shanda.georg@aqd.nbc.gov]
Sent: Friday, May 14, 2010 7:23 PM
To: karnold@karnoldconsulting.com
Subject: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Importance: High

Dear Mr. Arnold,

The department of Interior is interested in contracting with Ken Arnold Consulting, Inc. to obtain your expertise in the performance of a peer review of the Outer Continental Shelf Safety Oversight Board Report which will provide recommendations to the President of the United States Concerning the Deep Water event. This is a request for a Labor Hour Quote.

Attached is a statement of work for your consideration. Please provide a Firm Fixed price quote no later than Monday, 17th to me, at my email address: shanda.georg@aqd.nbc.gov.

I have also attached a non-disclosure form to be returned to me with the FFP quote. All documents are to be returned to the contracting officer.

This is a commercial acquisition, performed under Far Part 12 and in accordance with Far Part 13 Guidance.

FAR clauses 52.212-1; 52.212-2; 52.212-3; 52.212-4; and 52.212-5 apply.

Please reference RFQ Number N10PX18335 on your quote - The quote is to be submitted as a Labor Hour Quote.

If you have any questions, please put them in writing and send them to me and if I am unable to provide a response, I will forward to the program office for a response.

Should you need additional time please let me know. My contact information is below. I will be in the office on Saturday around 10:30 EST.

Best regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Per Holand
To: Kemkar, Neal;
cc: Hanley, Kallie; Black, Steve;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 6:32:52 AM
Attachments: Non-disclosure agreement signed by Per Holand.pdf

---

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

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ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

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Best regards

Per Holand
Senior Consultant, Ph.D.

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Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

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Sent: 15. mai 2010 01:54
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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

From: Juvkam-Wold, Hans
To: Kemkar, Neal;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 2:44:03 PM
Attachments: Non-Disclosure Agreement, Hans Juvkam-Wold.pdf

Neal,

The signed non-disclosure Agreement is attached.
Please let me know if you need anything else.

Hans C. Juvkam-Wold, ScD, PE
Professor Emeritus
Texas A&M University

OFFICE: juvkam-wold@tamu.edu 979-845-4093
HOME: [redacted] [redacted]

From: Ken Arnold
To: Georg, Shanda;
cc: Kemkar, Neal;
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Date: Saturday, May 15, 2010 3:16:32 PM
Attachments: Deepwater SME Support SOW_FINAL.pdf
Peer Review - Consultant NonDisclosureAgtFINAL.pdf

Shanda

I am in agreement with the attached two documents with the exceptions listed below. Unfortunately there is no way I can attach an electronic signature and I will not have access to a fax for a few days. Neal has a signed copy of the disclosure form which was faxed to him yesterday.

Please note the following exceptions:

1. I cannot finish the review by May 16 as requested in the SOW. It will take me several days and perhaps as much as one week from receipt of the materials.

2. My charges will be in accordance with the attached rate sheet. For this project I will be the only one working on it and accordingly my hourly rate is $200.

3. Please note the name of the company is K Arnold Consulting, Inc. and not Ken Arnold Consulting.

I can fax you the signature pages for both documents on Wednesday if that is OK.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: shanda.georg@aqd.nbc.gov [mailto:shanda.georg@aqd.nbc.gov]
Sent: Saturday, May 15, 2010 9:50 AM
To: Ken Arnold
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Importance: High

Neal,
My apologies. Please reconsider. - this request is on a labor hour basis - I miss-typed the info in two lines of the body of the letter, but the first sentence and last sentences were correct that indicated Labor Hour - it was a long day, however, if this had been issued as a ffp, it violates no rules - ffp is the preferred method of contracting for commercial items. I have attached the far site as an fyi for your comfort level: FAR 12.207. But again, due to the nature of the work, we are issuing this as a labor hour purchase order. Please let me know if you will provide a quote.

Revised and Corrected to indicate Labor Hour Quote May 15, 2010
Dear Mr. Arnold,

The department of Interior is interested in contracting with Ken Arnold Consulting, Inc. to obtain your expertise in the performance of a peer review of the Outer Continental Shelf Safety Oversight Board Report which will provide recommendations to the President of the United States Concerning the Deep Water event. This is a request for a Labor Hour Quote.

Attached is a statement of work for your consideration. Please provide a Labor Hour price quote no later than Monday, 17th to me, at my email address: shanda.georg@aqd.nbc.gov.

I have also attached a non-disclosure form to be returned to me with the Labor Hour quote. All documents are to be returned to the contracting officer.

This is a commercial acquisition, performed under Far Part 12 and in accordance with Far Part 13 Guidance.

FAR clauses 52.212-1; 52.212-2; 52.212-3; 52.212-4; and 52.212-5 apply.

Please reference RFQ Number N10PX18335 on your quote - The quote is to be submitted as a Labor Hour Quote.

If you have any questions, please put them in writing and send them to me and if I am unable to provide a response, I will forward to the program office for a response.

Should you need additional time please let me know. My contact information is below. I will be in the office on Saturday around 10:30 EST.

Best regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training

June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: "Ken Arnold" <karnold@karnoldconsulting.com>

To: <shanda.georg@aqd.nbc.gov>

Cc: "Kemkar, Neal" <Neal_Kemkar@ios.doi.gov>

Date: 05/14/2010 09:57 PM

Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support

---

Shanda

Thank you for considering me for this very important and interesting assignment. However, I don't think it is appropriate to contract for professional engineering services on a fixed price basis. Indeed it may even violate Federal rules. Therefore, I must decline your kind offer to hire me.

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Importance: High

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An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey[attachment "KACI Ratesheet.doc" deleted by Shanda Georg/NBC/OS/DOI]

From: Bob Bea
To: Kemkar, Neal;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Saturday, May 15, 2010 3:25:52 PM

---

all clear.

i will send the form in a few minutes.

i will do all i can to help with this project. i have assembled a summary of the key elements i think could help advance this important opportunity. i will bring the summary with me to Washington next week.

i will be available to meet with the group on Wednesday or Friday.

if you would like to have me meet with members of the team on Wednesday or Friday, please let me know - if possible sometime today. i am trying to organize my schedule while i am in Washington.

thanks for your help.

Bob Bea

Kemkar, Neal wrote:

> Thanks Bob. The spirit of the confidentiality agreement is to ensure the integrity of your involvement. You may inform/disclose to your university so long as they do not, in turn, publicly announce your involvement until after publication of the report. Thanks for understanding.
>
> Please do join the call when you can on Monday. Safe travels.
>
> ---
>
> **From**: Bob Bea <bea@ce.berkeley.edu>
> **To**: Kemkar, Neal
> **Cc**: 'acstancell@[redacted] <acstancell@msn.com>; 'hans.juvkam-wold@pe.tamu.edu' <hans.juvkam-wold@pe.tamu.edu>; 'per.holland@sintef.no' <per.holland@sintef.no>; 'bbaugh@radoil.com' <bbaugh@radoil.com>; 'mechenevert@mail.utexas.edu' <mechenevert@mail.utexas.edu>; 'FBrett@Petroskills.com' <FBrett@Petroskills.com>; Black, Steve; Hanley, Kallie; pblair@nas.edu <pblair@nas.edu>
> **Sent**: Fri May 14 20:32:08 2010
> **Subject**: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
>
> Happy Friday Evening Neal (and others),
>
> i will arrive at Kennedy airport at 4:09 PM EST. i do not think i can travel from the airport to my hotel and be checked in (Embassy Suites, 900 10 th Street NW) by the time of the conference call. given that we can address my concerns regarding the non-disclosure agreement (see below), i will connect with the conference call as soon as i can from the hotel.

i will be in Washington from Monday evening through Thursday evening. i have a meeting scheduled for Tuesday. i have tentative meetings scheduled for Thursday (the Thursday PM meeting can be rescheduled). i have reserved a part of Wednesday to be service to this committee - if you want.

please let me know if you would like to meet with me - the day, time, and place.

i have scanned the non-disclosure agreement. The agreement requires that "his or her role in it is confidential." Given my understanding of my employment contract with the University of California, i think this clause could be a problem (public university).

tomorrow morning, i will carefully review the non-disclosure agreement. if i think there could be a problem, i will have to have the University Counsel review the agreement before i can sign it.

as i said earlier, i will depart California early Monday morning (8 AM). given that it is now the end of semester commencement weekend, i do not think that it will be possible for me to have the University Counsel review the agreement and revert their opinion by the deadline you have specified below.

given this situation, how do you suggest i proceed ?

i truly want to assist this effort in any way that i can.

sincerely,

Bob Bea

Kemkar, Neal wrote:

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>
>> <!--[if !supportLists]-->(1) <!--[endif]-->discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
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Neal

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U.S. Department of the Interior
(202) 208-5379

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services
60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

--
Professor Robert Bea, PhD, PE

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From: Ken Arnold
To: Georg, Shanda;
cc: Kemkar, Neal; Valltos, Katherine; McCarthy, Daniel;
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Date: Saturday, May 15, 2010 6:54:06 PM
Attachments: KArnoldConsultingPriceQuote.xls

Attached is a completed spread sheet. Please note that the forecasted hours to be worked on given days is an estimate. I may work more or fewer hours on any day.

Kenneth E. (Ken) Arnold
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Home: 713-939-1034
www.karnoldconsulting.com

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Sent: Saturday, May 15, 2010 2:29 PM
To: Ken Arnold
Cc: 'Kemkar, Neal'; katherine.valltos@aqd.nbc.gov; daniel.mccarthy@aqd.nbc.gov
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support

Ken,
Thanks. I need a formal quote - just an hourly rate won't work for government contracting. I have attached an excel sheet - use this to submit your not to exceed price - that way we have a formal quote - and you don't have to do much as I have already provided a spread sheet to fill in the blanks. Please modify as you see fit. I believe Neal understands that the dates are not attainable. Will keep you posted on his comments to your email. Right now we don't have a formal contract, but can work that out on Wed with You when you are reachable.

Again, thanks for the response and please use the excel sheet as I need a formal quote.

Understood about the "K" in your company's name.

best regards, shanda

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381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: "Ken Arnold" <karnold@karnoldconsulting.com>

To: <shanda.georg@aqd.nbc.gov>

Cc: "'Kemkar, Neal'" <Neal_Kemkar@ios.doi.gov>

Date: 05/15/2010 03:16 PM

Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support

---

Shanda

I am in agreement with the attached two documents with the exceptions listed below. Unfortunately there is no way I can attach an electronic signature and I will not have access to a fax for a few days. Neal has a signed copy of the disclosure form which was faxed to him yesterday.

Please note the following exceptions:

1. I cannot finish the review by May 16 as requested in the SOW. It will take me several days and perhaps as much as one week from receipt of the materials.

2. My charges will be in accordance with the attached rate sheet. For this project I will be the only one working on it and accordingly my hourly rate is [redacted]

3. Please note the name of the company is K Arnold Consulting, Inc. and not Ken Arnold Consulting.

I can fax you the signature pages for both documents on Wednesday if that is OK.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: shanda.georg@aqd.nbc.gov [mailto:shanda.georg@aqd.nbc.gov]
Sent: Saturday, May 15, 2010 9:50 AM
To: Ken Arnold
Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Importance: High

Neal,
My apologies. Please reconsider. - this request is on a labor hour basis - I miss-typed the info in two lines of the body of the letter, but the first sentence and last sentences were correct that indicated Labor Hour - it was a long day, however, if this had been issued as a ffp, it violates no rules - ffp is the preferred method of contracting for commercial items. I have attached the far site as an fyi for your comfort level: FAR 12.207. But again, due to the nature of the work, we are issuing this as a labor hour purchase order. Please let me know if you will provide a quote.

Revised and Corrected to indicate Labor Hour Quote May 15, 2010
Dear Mr. Arnold,

The department of Interior is interested in contracting with Ken Arnold Consulting, Inc. to obtain your expertise in the performance of a peer review of the Outer Continental Shelf Safety Oversight Board Report which will provide recommendations to the President of the United States Concerning the Deep Water event. This is a request for a Labor Hour Quote.

Attached is a statement of work for your consideration. Please provide a Labor Hour price quote no later than Monday, 17th to me, at my email address: shanda.georg@aqd.nbc.gov.

I have also attached a non-disclosure form to be returned to me with the Labor Hour quote. All documents are to be returned to the contracting officer.

This is a commercial acquisition, performed under Far Part 12 and in accordance with Far Part 13 Guidance.

FAR clauses 52.212-1; 52.212-2; 52.212-3; 52.212-4; and 52.212-5 apply.

Please reference RFQ Number N10PX18335 on your quote - The quote is to be submitted as a Labor Hour Quote.

If you have any questions, please put them in writing and send them to me and if I am unable to provide a response, I will forward to the program office for a response.

Should you need additional time please let me know. My contact information is below. I will be in the office on Saturday around 10:30 EST.

Best regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

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From: "Ken Arnold" <karnold@karnoldconsulting.com>

To: <shanda.georg@aqd.nbc.gov>

Cc: "'Kemkar, Neal'" <Neal_Kemkar@ios.doi.gov>

Date: 05/14/2010 09:57 PM

Subject: RE: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support

---

Shanda

Thank you for considering me for this very important and interesting assignment. However, I don't think it is appropriate to contract for professional engineering services on a fixed price basis. Indeed it may even violate Federal rules. Therefore, I must decline your kind offer to hire me.

Attached is a rate sheet for my services if you would like to reconsider.

For future reference please note the name of my company, K Arnold Consulting, Inc.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: shanda.georg@aqd.nbc.gov [mailto:shanda.georg@aqd.nbc.gov]
Sent: Friday, May 14, 2010 7:23 PM
To: karnold@karnoldconsulting.com
Subject: RFQ N10PX18335 - Request for Quote - Deepwater Horizon Peer Review Support
Importance: High

Dear Mr. Arnold,

The department of Interior is interested in contracting with Ken Arnold Consulting, Inc. to obtain your expertise in the performance of a peer review of the Outer Continental Shelf

Safety Oversight Board Report which will provide recommendations to the President of the United States Concerning the Deep Water event. This is a request for a Labor Hour Quote.

Attached is a statement of work for your consideration. Please provide a Firm Fixed price quote no later than Monday, 17th to me, at my email address: shanda.georg@aqd.nbc.gov.

I have also attached a non-disclosure form to be returned to me with the FFP quote. All documents are to be returned to the contracting officer.

This is a commercial acquisition, performed under Far Part 12 and in accordance with Far Part 13 Guidance.

FAR clauses 52.212-1; 52.212-2; 52.212-3; 52.212-4; and 52.212-5 apply.

Please reference RFQ Number N10PX18335 on your quote - The quote is to be submitted as a Labor Hour Quote.

If you have any questions, please put them in writing and send them to me and if I am unable to provide a response, I will forward to the program office for a response.

Should you need additional time please let me know. My contact information is below. I will be in the office on Saturday around 10:30 EST.

Best regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead
Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
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P: 703-964-4855 / F: 703-964-8477 or 8478
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shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey[attachment "KACI Ratesheet.

doc" deleted by Shanda Georg/NBC/OS/DOI] [attachment "Deepwater SME Support SOW_FINAL.pdf" deleted by Shanda Georg/NBC/OS/DOI] [attachment "Peer Review - Consultant NonDisclosureAgtFINAL.pdf" deleted by Shanda Georg/NBC/OS/DOI]

Request for Quote N10PX18335 / Deepwater Horizon Peer Review Support
K. Arnold Consulting, Inc.
15-May-10
Labor Hour Quote

# of Day		Date	Day of Month	Hours	Discounted Commerical Hourly Rate	Total
1	May	19	Wed	[redacted]		
2	May	20	Thurs			
3	May	21	Friday			
4	May	22	Sat			
5	May	23	Sun			
6	May	24	Mon			
7	May	25	Tues			
8	May	26	Wed			
9	May	27	Thurs			
10	May	28	Friday			
11	May	29	Sat			
12	May	30	Sun			
13	May	31	Mon (Memorial Day)			
		MAY Total		[redacted]		$14,800.00

	Grand Total HOURS	Grand Total $
Grand Total Labor Hour Price Quote:	[redacted]	$24,800.00

	Non-Discount Rate	Discount Rate	Savings	% Savings
Hourly Rate	[redacted]			0.00%
Total Hours	$24,800.00	$0.00	$ 24,800.00	

# of Day		Date	Day of Month	Hours	Discounted Commerical Hourly Rate	Total
14	June	1	Tues	[redacted]		
15	June	2	Wed			
16	June	3	Thurs			
17	June	4	Friday			
18	June	5	Sat			
19	June	6	Sun			
20	June	7	Mon			
21	June	8	Tues			
22	June	9	Wed			
23	June	10	Thurs			
24	June	11	Friday			
25	June	12	Sat			
26	June	13	Sun			
27	June	14	Mon			
28	June	15	Tues			
29	June	16	Wed			
30	June	17	Thurs			
31	June	18	Friday			
32	June	19	Sat			
33	June	20	Sun			
34	June	21	Mon			
35	June	22	Tues			
36	June	23	Wed			
37	June	24	Thurs			
38	June	25	Friday			
39	June	26	Sat			
40	June	27	Sun			
41	June	28	Mon			
42	June	29	Tues			
43	June	30	Wed			
		JUNE Total		[redacted]		$10,000.00

From: Kemkar, Neal
To: Juvkam-Wold, Hans;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Sunday, May 16, 2010 2:24:48 PM

Thanks. We will be in touch shortly with specifics about tomorrow's call.

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Juvkam-Wold, Hans [mailto:juvkam-wold@pe.tamu.edu]
Sent: Saturday, May 15, 2010 2:40 PM
To: Kemkar, Neal
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal,

The signed non-disclosure Agreement is attached.
Please let me know if you need anything else.

Hans C. Juvkam-Wold, ScD, PE
Professor Emeritus
Texas A&M University

OFFICE: juvkam-wold@tamu.edu 979-845-4093
HOME: [redacted]

From: Arnold Stancell
To: Kemkar, Neal;
Subject: Re: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Monday, May 17, 2010 1:03:02 PM

Neal,

I was away, just returned. I have signed and faxed the confidentiality agreement to 202-208-4561. I will participate in the 5 pm EST call today.

Best regards,
Arnold

----- Original Message -----
From: Kemkar, Neal
To: 'acstancell@[redacted]
Cc: Hanley, Kallie
Sent: Sunday, May 16, 2010 2:31 PM
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Dr. Stancell – we have not heard from you yet. I just left you a voicemail along these same lines but to confirm your participation in this review, please (1) review the attached confidentiality agreement and return to this email or to fax number 1-202-208-4561 and (2) confirm your ability to participate in a 5pm eastern time call on Monday.

Many thanks,
Neal

Neal Kemkar

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Kemkar, Neal
Sent: Friday, May 14, 2010 7:50 PM
To: 'acstancell@[redacted]hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; 'FBrett@Petroskills.com'; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; 'pblair@nas.edu'
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best

practices, and

(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Chenevert, Martin E
To: Kemkar, Neal;
Subject: Chenevert non-disclosure agreement
Date: Monday, May 17, 2010 2:21:37 PM
Attachments: 20100517131532233.pdf

Neal
My document is attached.
Let me know what number I am to call to join the discussion.
Thanks,
Martin Chenevert

From: Per Holand
To: Kemkar, Neal;
cc: Hanley, Kallie; Black, Steve;
Subject: RE: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Tuesday, May 18, 2010 8:25:17 AM
Attachments: 100516 Candidate Recommendations, Per Holand.doc

---

Neal

Please find enclosed your document modified by me with track changes.

I have only commented on the BOP issues. I have deleted some of your proposed actions that I found not be practical and I have added some new and modified some.

I hope that you find my comments useful.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 18:12
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Thanks Per. Glad you can make the call--sorry for the late hour in your time zone. Look forward to speaking on Monday.

Neal

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve

Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

(1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
(2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

From: Ford Brett
To: Kemkar, Neal; Black, Steve;
cc: Ishee, Mary Katherine; Hanley, Kallie;
Subject: Brett Comments: U. S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Tuesday, May 18, 2010 1:07:51 PM
Attachments: 100516 Candidate Recommendations Brett Comments v2.doc

---

Neal and Steve –

As I understand my instructions, I was NOT to send to other 'discussants'.

Attached are my Suggested Revisions (should be in purple), and my "Editorial Comments" *(shown in purple parenthetical italics)* – to explaining my thinking. These comments may be helpful in combining with other 'discussants'. Besides edits to the current recommendations, I've added unique ideas, and have highlighted the purple edits in yellow.

I've included a one page general comment at the bottom of the document, that explains my approach to the '30 day effort' as I understand it.

One comment that I didn't include: I'd say who(m?) ever came up with this original did a pretty good job to start with. I hope my contribution helps.

I'm at DC time + 6hrs – call any time at 918-408-9516 if I can be helpful, (or email fbrett@petroskills.com).

Thank you for your efforts. Please let me know if I can be of further assistance.

Sincerely,

Ford Brett
President
PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Friday, May 14, 2010 6:50 PM
To: 'acstancell@[redacted] 'hans.juvkam-wold@pe.tamu.edu'; 'per.holland@sintef.no'; 'bbaugh@radoil.com'; 'mechenevert@mail.utexas.edu'; Ford Brett; 'bea@ce.berkeley.edu'
Cc: Black, Steve; Hanley, Kallie; pblair@nas.edu
Subject: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

As you heard from Dr. Peter Blair of the National Academies earlier this week, the U.S. Department of Interior (DOI) is preparing a report at the President's request which reviews and reports what, if any, additional precautions and technologies should be required to prevent accidents like the BP Oil Spill from happening again. The report is due to the President on May 28, 2010.

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We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Elmer Danenberger
To: Kemkar, Neal;
cc: Georg, Shanda;
Subject: RE: Bud - please let me know when you have had a conversation with Donna Huston
Date: Tuesday, May 18, 2010 8:40:28 PM

Thanks Neal.

I am back from my trip and everything seems to be in order.

Shanda did a great job; she was very helpful! I will meet with her at 0930 in Herndon to execute the documents. I will then be ready to go!

Bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Monday, May 17, 2010 7:18 PM
To: edanenberger@[redacted]
Subject: Bud - please let me know when you have had a conversation with Donna Huston
Importance: High

We are eager for you to start your participation in the project the moment you have discussed your ethics requirements and signed the required paperwork.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Juvkam-Wold, Hans
To: Kemkar, Neal; Hanley, Kallie;
Subject: Comments on DRAFT SAFETY RECOMMENDATIONS
Date: Tuesday, May 18, 2010 10:35:55 PM
Attachments: Juvkam-Wold Comments on Recommendations.doc

All,

Attached are my comments and recommendations regarding the proposed Safety Recommendations.

Please let me know if you have any questions.

I'll be outside the country for the next three weeks, but can be reached by email.

Hans C. Juvkam-Wold, ScD, PE
Professor Emeritus
Texas A&M University

OFFICE: juvkam-wold@tamu.edu 979-845-4093
HOME: [redacted] [redacted]

From: Kemkar, Neal
To: Juvkam-Wold, Hans;
cc: Hanley, Kallie;
Subject: RE: Comments on DRAFT SAFETY RECOMMENDATIONS
Date: Tuesday, May 18, 2010 10:37:11 PM

Thanks Hans. Safe travels.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Juvkam-Wold, Hans [mailto:juvkam-wold@pe.tamu.edu]
Sent: Tuesday, May 18, 2010 10:31 PM
To: Kemkar, Neal; Hanley, Kallie
Subject: Comments on DRAFT SAFETY RECOMMENDATIONS

All,

Attached are my comments and recommendations regarding the proposed Safety Recommendations.

Please let me know if you have any questions.

I'll be outside the country for the next three weeks, but can be reached by email.

Hans C. Juvkam-Wold, ScD, PE
Professor Emeritus
Texas A&M University

OFFICE: juvkam-wold@tamu.edu 979-845-4093
HOME: [redacted] [redacted]

From: Benton Baugh
To: Kemkar, Neal;
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA
Date: Tuesday, May 18, 2010 10:51:58 PM
Attachments: 100517 BAUGH Recommendations.doc

My comments are attached.

Regards,

Benton F. Baugh, Ph.D., P.E., NAE

Radoil, Inc.

ISO 9001:2008

12551 FM 529 RD
Houston, TX 77041
office: (713) 937-4494
cell: (713) 419-8683
bbaugh@radoil.com
www.radoil.com

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From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Monday, May 17, 2010 1:43 PM
To: hans.juvkam-wold@pe.tamu.edu; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu; per.holand@exprosoft.com; Chenevert, Martin E; Arnold Stancell
Cc: Hanley, Kallie; Black, Steve; Ishee, Mary Katherine
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA

NAE Peer Review Panel Call with DOI 5.17.10
AGENDA

I. Introductions

a. DOI introductions

b. NAE Panelist Introductions

II. Overview of NAE Peer Review Panel task

III. Walk through document to be reviewed

IV. Questions from NAE Panel on document

V. Discussion on document

VI. Next steps : Panelists each submit comments on document to DOI by 9am on 5.19.10

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
Sent: Sunday, May 16, 2010 2:52 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu
Cc: Kemkar, Neal
Subject: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern

Thank you for agreeing to participate in the NAE Peer Review Panel. We would like to convene the panel for a call tomorrow, Monday, May 17th at 5pm Eastern. Please use the following conference call number:

Call in number: [redacted]
Participant Access Code: [redacted]

Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Elmer Danenberger
To: Kemkar, Neal;
Subject: RE: Bud - please let me know when you have had a conversation with Donna Huston
Date: Wednesday, May 19, 2010 5:54:27 AM

Neal, I just got your message. I will call you this morning. bud

---

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 18, 2010 8:42 PM
To: 'edanenberger@[redacted]
Subject: Re: Bud - please let me know when you have had a conversation with Donna Huston

Thanks Bud. That's good news. Welcome back. If you have a 2 mins to talk -- please give me a call tonight. 2022573495

From: Elmer Danenberger <edanenberger@[redacted]
To: Kemkar, Neal
Cc: Georg, Shanda
Sent: Tue May 18 20:40:32 2010
Subject: RE: Bud - please let me know when you have had a conversation with Donna Huston

Thanks Neal.

I am back from my trip and everything seems to be in order.

Shanda did a great job; she was very helpful! I will meet with her at 0930 in Herndon to execute the documents. I will then be ready to go!

Bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Monday, May 17, 2010 7:18 PM
To: edanenberger@[redacted]
Subject: Bud - please let me know when you have had a conversation with Donna Huston
Importance: High

We are eager for you to start your participation in the project the moment you have discussed your ethics requirements and signed the required paperwork.

Thanks,
Neal

Neal Kemkar

Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Arnold Stancell
To: Kemkar, Neal;
Subject: Re: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA
Date: Wednesday, May 19, 2010 8:20:34 AM
Attachments: AOil Spill INAE.doc

Neal,

Please see my comments attached. Nice meeting you over the phone.

Best regards,
Arnie

----- Original Message -----
From: Kemkar, Neal
To: hans.juvkam-wold@pe.tamu.edu ; bbaugh@radoil.com ; FBrett@Petroskills.com ; bea@ce.berkeley.edu ; per.holand@exprosoft.com ; Chenevert, Martin E ; Arnold Stancell
Cc: Hanley, Kallie ; Black, Steve ; Ishee, Mary Katherine
Sent: Monday, May 17, 2010 2:42 PM
Subject: RE: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern -- AGENDA

NAE Peer Review Panel Call with DOI 5.17.10
AGENDA

I. Introductions
   a. DOI introductions
   b. NAE Panelist Introductions

II. Overview of NAE Peer Review Panel task

III. Walk through document to be reviewed

IV. Questions from NAE Panel on document

V. Discussion on document

VI. Next steps : Panelists each submit comments on document to DOI by 9am on 5.19.10

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Hanley, Kallie
Sent: Sunday, May 16, 2010 2:52 PM
To: hans.juvkam-wold@pe.tamu.edu; per.holland@sintef.no; bbaugh@radoil.com; FBrett@Petroskills.com; bea@ce.berkeley.edu

Cc: Kemkar, Neal
Subject: NAE peer review panel call with DOI tomorrow 5.17 at 5pm Eastern

Thank you for agreeing to participate in the NAE Peer Review Panel. We would like to convene the panel for a call tomorrow, Monday, May 17th at 5pm Eastern. Please use the following conference call number:

Call in number: [redacted]
Participant Access [redacted]

Please let us know if you have any questions before then. We look forward to speaking with you tomorrow.

Thanks,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Elmer Danenberger
To: Kemkar, Neal; Hanley, Kallie;
cc: Georg, Shanda;
Subject: FW: bud Danenberger
Date: Wednesday, May 19, 2010 10:32:53 AM

Neal & Kallie,

Please send me the background materials as soon as possible so I can begin my review.

Thanks.

Bud

From: shanda.georg@aqd.nbc.gov [mailto:shanda.georg@aqd.nbc.gov]
Sent: Wednesday, May 19, 2010 10:17 AM
To: Kemkar, Neal; Hanley, Kallie; edanenberger@gmail.com
Cc: katherine.valltos@aqd.nbc.gov; daniel.mccarthy@aqd.nbc.gov; john.nyce@aqd.nbc.gov; william.archambeault@aqd.nbc.gov
Subject: bud Danenberger
Importance: High

All -

The paper work is signed and Bud Danenberger is now under contract with DOI to support Deepwater Horizon SME support effective today 5/19/2010 through June 30, 2010 up to a not to exceed Labor hour order of $24,800.00

DOI and Bud may now engage with each other.

The documents will be sent out shortly.

regards, shanda

Out of Office Schedule:
April: 21-23 Training
May: 24-27 Training
June: 1-14 Annual Leave

Shanda L. Georg
Contracting Officer, Lead

Acquisition Services Directorate
National Business Center
U.S. Dept. of the Interior
381 Elden Street, Suite 4000
Herndon VA 20170
P: 703-964-4855 / F: 703-964-8477 or 8478
C: 571-926-1127
shanda.georg@aqd.nbc.gov
www.aqd.nbc.gov
An ISO 9001 Certified Organization

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: http://www.aqd.nbc.gov/survey

From: Per Holand
To: Black, Steve; Kemkar, Neal;
cc: Hanley, Kallie;
Subject: SV: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Wednesday, May 19, 2010 3:08:43 PM

Steve, Neal

I have been requested by BP to support them in their investigation related to MC252/Deepwater Horizon incident. I would like to accept that. Is that OK for you?

I will of cause not mention that I have been involved with you before May 28.

Per

Fra: Black, Steve [mailto:steve_black@ios.doi.gov]
Sendt: ti 18/05/2010 14:46
Til: Per Holand; Kemkar, Neal
Kopi: Hanley, Kallie
Emne: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Per, thank you very much for your prompt reply and helpful comments.

Steve

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Tue May 18 08:24:50 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

Please find enclosed your document modified by me with track changes.

I have only commented on the BOP issues. I have deleted some of your proposed actions that I found not be practical and I have added some new and modified some.

I hope that you find my comments useful.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 18:12
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: Re: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Thanks Per. Glad you can make the call--sorry for the late hour in your time zone. Look forward to speaking on Monday.

Neal

From: Per Holand <Per.Holand@exprosoft.com>
To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Neal

I am willing to be a peer reviewer. Please find enclosed the signed Non-disclosure agreement.

I can participate in the conference call on Monday 17th of May, it will be at 2300 Norwegian time.

If you instead want to contact me separately that is OK as well, but then it has to be on Tuesday 18th of May.

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS
Location: Prof. Brochs gt. 2, Trondheim, Norway

Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Importance: High

Per – good to talk to you earlier this week.

I recognize you are unlikely to make this conference call given the time difference but please work with Kallie to set up a separate 30 minute check-in call with Kallie and me if you are willing to be a peer reviewer as described below.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

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I am writing today to ask you to provide brief but important service in a peer review of our report on increased safety measures for energy development on the outer continental shelf.

As Dr. Blair indicated, we asked that the Academy identify a number of recognized academic and industry experts in the relevant fields to:

> (1) discuss informally with DOI officials the current state of the art of offshore drilling safety and blowout protection and the degree to which such practices are currently in use in the U.S. and incorporated broadly into industry best practices, and
> (2) to vet, again informally, a series of proposed recommendations the department is formulating that would be included in this report. After reviewing who was involved in ongoing related Academy activities and consultation with many colleagues, Dr. Blair's team generated a list of recommended experts, including you.

Although this discussion will be convened directly by us here in the Office of the Secretary of the Interior, not by

the National Academies, the Academies have recommended that the DOI consider you as a discussant.

We will convene a 90-minute conference call of all interested discussants at **5pm eastern time on Monday, May 17, 2010.** The call will last until approximately 6:30pm.

If you are willing and available to participate, please **sign and return the attached non-disclosure agreement either to this email to return fax number +1-202-208-4561** before 3pm eastern time on Monday, May 17.

If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

From: Per Holand
To: Kemkar, Neal; Black, Steve;
cc: Hanley, Kallie;
Subject: SV: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Thursday, May 20, 2010 4:08:04 PM

Neal

I promised BP an answer today.

I plan to say that I would be pleased to particpate in their investigation team, but I cannot join it before May 31.

Then your report should be public and my Peer Review obligation finished, so I assume that it will not cause any problems.

Best regards Per

Fra: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sendt: on 19/05/2010 21:10
Til: Per Holand; Black, Steve
Kopi: Hanley, Kallie
Emne: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Per – thanks for checking. Before you accept, please allow us some time to consider this question with appropriate counsel and get back to you quickly.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Per Holand [mailto:Per.Holand@exprosoft.com]
Sent: Wednesday, May 19, 2010 3:08 PM
To: Black, Steve; Kemkar, Neal
Cc: Hanley, Kallie
Subject: SV: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

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Fra: Black, Steve [mailto:steve_black@ios.doi.gov]
Sendt: ti 18/05/2010 14:46
Til: Per Holand; Kemkar, Neal
Kopi: Hanley, Kallie
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Per, thank you very much for your prompt reply and helpful comments.

Steve

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To: Kemkar, Neal
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I have only commented on the BOP issues. I have deleted some of your proposed actions that I found not be practical and I have added some new and modified some.

I hope that you find my comments useful.

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Mail to: per.holand@exprosoft.com
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To: Kemkar, Neal
Cc: Hanley, Kallie; Black, Steve
Sent: Sat May 15 06:32:41 2010
Subject: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

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From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
To: Per Holand
Cc: Hanley, Kallie; Black, Steve
Subject: FW: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety

Report (Time-Sensitive)
Importance: High

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Best,
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From: Per Holand
To: Kemkar, Neal; Black, Steve;
cc: Hanley, Kallie;
Subject: SV: U.
S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)
Date: Thursday, May 20, 2010 4:25:54 PM

Thank you.

Best regards Per

Fra: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sendt: to 20/05/2010 22:17
Til: Per Holand; Black, Steve
Kopi: Hanley, Kallie
Emne: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

Thanks for your follow up Per.

If you follow your proposed route, please do disclose to BP the fact of your involvement with our 30-day safety report but do not disclose any confidential communications or documents that you have or will receive from Interior.

I know your expertise is in high demand so thanks for your understanding about our need to run checks here. And again, thank you for your help with his project.

Best,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

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Sent: Thursday, May 20, 2010 4:08 PM
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Cc: Hanley, Kallie
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Fra: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sendt: on 19/05/2010 21:10
Til: Per Holand; Black, Steve
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Emne: RE: U.S. Department of Interior Peer Review Request for Offshore Energy Development Safety Report (Time-Sensitive)

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From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: 15. mai 2010 01:54
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Importance: High

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If you have any questions, please feel free to contact me directly on this email.

Best,
Neal

From: Ken Arnold
To: Kemkar, Neal;
Subject: RE: Revised draft recommendations
Date: Friday, May 21, 2010 5:13:21 PM
Attachments: 100520 DRAFT Offshore Drilling Safety Recommendations_v 1 KEA Comments.docx

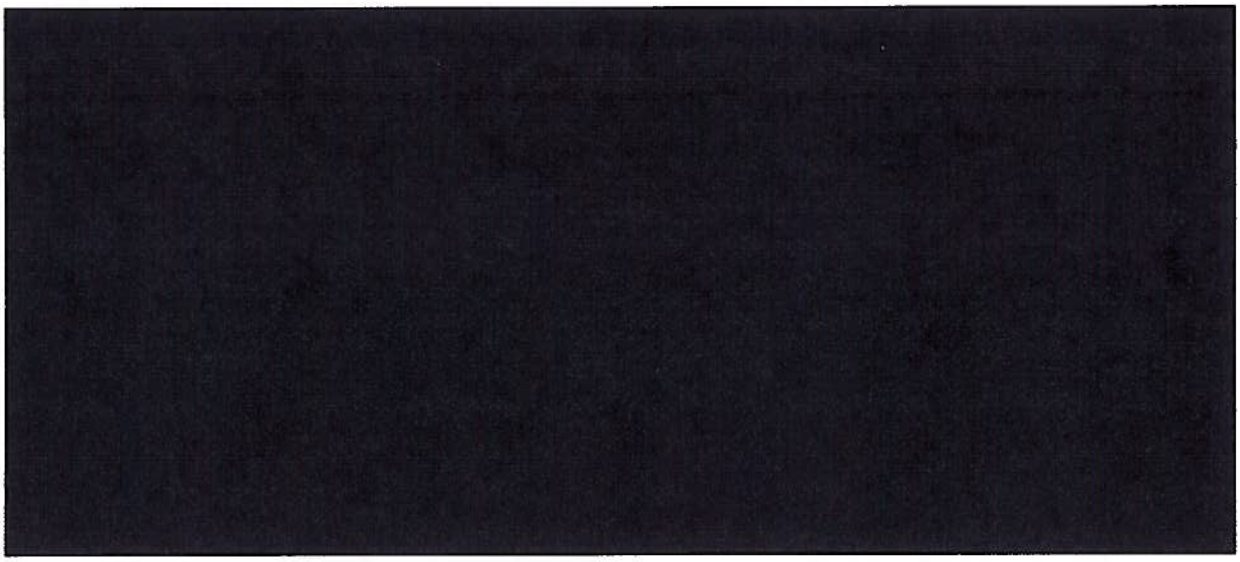
---

Attached are my comments. This is a much improved document and I only have a few comments.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Thursday, May 20, 2010 2:26 PM
To: Ken Arnold
Subject: FW: Revised draft recommendations
Importance: High

DRAFT – PREDICISIONAL CONTAINS INTERAGENCY DELIBERATIVE PROCESS INFORMATION
This draft may not be disclosed under FOIA



[redacted]

From: Bob Bea
To: Kemkar, Neal;
Subject: Re: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures
Date: Saturday, May 22, 2010 4:59:21 PM
Attachments: BobBeaPreliminaryAnalysesrev5.pdf
learning from failures.pdf
Flirting With Disasters.pdf
OTC02-14293-deepwater operations HOF.pdf

---

apology for system failure.

latest version attached.

background attached.

bob

Kemkar, Neal wrote:
> Actually the attachment did not come through. Please resend.
>
>
> ----- Original Message -----
> From: Robert Bea <bea@ce.berkeley.edu>
> To: Kemkar, Neal; Hanley, Kallie
> Sent: Wed May 19 06:42:00 2010
> Subject: Summary of my preliminary findings and thoughts about the Deepwater Horizon failures
>
> attached as you requested is summary of my preliminary findings and
> thoughts about the Deepwater Horizon failures and recommendations for
> the future continuation of this important activity.
>
> thank you for the opportunity to help with this important project.
>
> bob
>

--
Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
University of California Berkeley
Berkeley, CA 94720-1710
Telephone/fax 510-642-0967
Telefax 510-643-8919
Email: bea@ce.berkeley.edu

Home Office
Risk Assessment & Management Services

60 Shuey Drive
Moraga, California 94556
Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Elmer Danenberger
To: Kemkar, Neal;
Subject: RE: Draft Interim Measures Report for Immediate Review
Date: Tuesday, May 25, 2010 11:11:52 AM

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will do. bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 10:43 AM
To: Elmer Danenberger
Cc: Black, Steve
Subject: Draft Interim Measures Report for Immediate Review

Bud – please review the attached draft of the safety report and let us know, by later today, about any big picture thoughts or comments you have. The Secretary and White House are reviewing this draft. I will call you momentarily to discuss.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Ford Brett
To: Hanley, Kallie;
cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece;
Subject: Brett Comments on document...
Date: Tuesday, May 25, 2010 5:49:41 PM
Attachments: Interim Measures Report 100525 nk FINAL.PDF

My editorial comments on the Interim Measures Report 100525 nk FINAL.PDF

Introuduction....

[redacted]

[redacted]

[redacted]

[redacted]

Ford Brett
PetroSkills
(o) +1 918 828 2511 *(I pick up messages frequently)*
(m) +1 918 408 9516 *(works in most of world)*
Skype Ford.Brett
or call Rozanne at +1 918 828 2505

www.PetroSkills.com

From: Hanley, Kallie [mailto:Kallie_Hanley@ios.doi.gov]
Sent: Tuesday, May 25, 2010 9:38 AM
To: hans.juvkam-wold@pe.tamu.edu; Bob Bea; Ford Brett; Per Holand; mechenevert@austin.utexas.edu; Arnold Stancell; Benton Baugh

Cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece
Subject: Call today with Interior

Good Morning

Please confirm that you will be on today's follow-up conference call at 5:00pm eastern time. Additionally, please review the attached report in advance of today's call.

The conference call information for today's call:

Call in number: [redacted]
Participant access code: [redacted]

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Hanley, Kallie
Sent: Monday, May 24, 2010 12:56 PM
To: 'hans.juvkam-wold@pe.tamu.edu'; 'Bob Bea'; 'Ford Brett'; 'Per Holand'; 'mechenevert@austin.utexas.edu'; 'Arnold Stancell'; 'Benton Baugh'
Cc: Kemkar, Neal; Black, Steve; Ishee, Mary Katherine; Graves, Carmiece
Subject: NAE Peer Review Panel - follow up call

NAE Peer Review Panel Members:

We look forward to speaking with you on tomorrow's follow-up call: Tuesday, May 25 at 5:00pm Eastern Time. Please use the following conference call information:

Call in number: [redacted]
Participant access code: [redacted]

Thank you,

Kallie Hanley
Office of the White House Liaison
The U.S. Department of the Interior
desk: (202) 208-5397 | cell: (202) 374-7694
kallie_hanley@ios.doi.gov

From: Per Holand
To: Kemkar, Neal; Black, Steve; Hanley, Kallie;
Subject: Some few comments from Per Holand
Date: Tuesday, May 25, 2010 6:07:41 PM

Neal, Steve and Kallie

I liked the report.

I found two things you should correct, and I want you to replace my bio to be more in line with the others:

- Page [redacted]
- Page 13 [redacted]
- Finally I have suggested a new bio for myself. I did not understand what you wanted this morning

Per Holand graduated from Norwegian University of Science and Technology in 1982 with a M. Sc. in Mechanical Engineering. He has 18 years experience from safety and reliability engineering at SINTEF, prior to joining ExproSoft on 1 May 2001. His main work focus in SINTEF and ExproSoft has been on the reliability of drilling equipment, offshore blowout experience, subsea and well reliability analyses. He has carried out numerous subsea BOP reliability studies on behalf of clients in Norway, Brazil, US and Italy. Since 1990 he has been responsible for maintaining the SINTEF Offshore Blowout Database, which serves as the key information in connection with blowout risk analyses in the North Sea area. He holds a PhD (1996) in safety and reliability engineering from the Norwegian University of Science and Technology in Trondheim, Norway. His PhD was later reworked and published as a book at the Gulf Publishing Company in 1997 (Title: Offshore Blowouts, Causes and Control).

Best regards

Per Holand
Senior Consultant, Ph.D.

ExproSoft AS

Location: Prof. Brochs gt. 2, Trondheim, Norway
Mail address: N-7465 Trondheim, Norway

Office phone: (+47) 73 20 04 08
Mobile phone: (+47) 93 20 55 41
Mail to: per.holand@exprosoft.com
Web: www.exprosoft.com

From: Ken Arnold
To: Kemkar, Neal;
cc: Black, Steve;
Subject: RE: Draft Interim Measures Report for Immediate Review
Date: Tuesday, May 25, 2010 10:22:21 PM

The This is really a great report. A few nitpicking comments:

1. On Screen 18 it says:

[redacted]

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Tuesday, May 25, 2010 9:44 AM

To: Ken Arnold
Cc: Black, Steve
Subject: Draft Interim Measures Report for Immediate Review

Ken - please review the attached draft of the safety report and let us know, by later today, about any big picture thoughts or comments you have. The Secretary and White House are reviewing this draft. I will call you momentarily to discuss.

Thanks,
Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379

From: Elmer Danenberger
To: Black, Steve;
Subject: RE: Question
Date: Wednesday, May 26, 2010 8:38:14 PM

Steve, I'm fairly confident that at least some of the MODUs have 2 B/S rams. I expect that the % is highest for the deepwater rigs. bud

---

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Wednesday, May 26, 2010 8:27 PM
To: edanenberger@gmail.com
Subject: Question

Bud, do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams? Thanks.

Steve

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: karnold@karnoldconsulting.com
To: Black, Steve;
Subject: Re: Question
Date: Wednesday, May 26, 2010 8:43:09 PM

I do not know. Would you like me to call around tomorrow. I am sure the MMS knows.

Sent via BlackBerry by AT&T

From: "Black, Steve" <steve_black@ios.doi.gov>
Date: Wed, 26 May 2010 20:28:06 -0400
To: karnold@karnoldconsulting.com<karnold@karnoldconsulting.com>
Subject: Question

Ken, good evening. Do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Ken Arnold
To: Black, Steve; Kemkar, Neal;
Subject: Bob Bea
Date: Wednesday, May 26, 2010 10:34:46 PM

Steve and Neal

Since Bob Bea is mentioned as one of the sources of the report to the Secretary, you should be aware that by April 29, within eight days after the accident and before the 60 Minutes interview, Bob Bea was already signed up as the "star witness" in a law suit against BP and Transocean. I do not understand how he was able to tell within days of the accident, when little was known, who was at fault and why he then went on National Television without disclosing his involvement in the law suit. The email below was sent to a friend of mine on April 29.

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From:
Sent: Wednesday, May 26, 2010 6:54 PM
To: 'Ken Arnold'
Subject: FW: Gulf Oil Spill

From: Pierce O'Donnell [mailto:pod@oslaw.com]
Sent: Thursday, April 29, 2010 5:09 PM
To:
Subject: Gulf Oil Spill

Dear Sir

I have been referred to you by my good friend Bob Bea.

I am one of several lawyers suing BP Global and Transocean in a federal class

action in New Orleans on behalf of commercial fishing, seafood, and charter boat businesses who will be devastated if (when) the oil slick hits land. I would like to speak with you about serving as a consulting expert to our legal team. Our legal team (with Dr. Bea our star witness) was the legal team that won the MR-GO lawsuit on behalf of Katrina victims against the Army Corps of Engineers . Could you please call me at 310 480 3366. I look forward to speaking with you. Thank you. Pierce O'Donnell

From: Ken Arnold
To: Black, Steve;
Subject: RE: Question
Date: Thursday, May 27, 2010 11:12:12 AM

Steve

I have asked a few people. One was Ford Brett and he shared his answer to me. I don't think I can improve on that.

Ken

Kenneth E. (Ken) Arnold
K Arnold Consulting, Inc.
3031 Shadowdale
Houston, TX 77043
Cell: 832-212-0160
Home: 713-939-1034
www.karnoldconsulting.com

From: Black, Steve [mailto:steve_black@ios.doi.gov]
Sent: Wednesday, May 26, 2010 7:28 PM
To: karnold@karnoldconsulting.com
Subject: Question

Ken, good evening. Do you know whether any of the 33 active MODU's BOPs in GoM have 2 blind shear rams?

Many thanks.

Steve Black
Counselor to the Secretary
U.S. Department of the Interior
1849 C Street, N.W., MS 7229
Washington, D.C. 20240
Phone: 202-208-4123
Fax: 202-208-4561
e-mail: steve_black@ios.doi.gov

From: Bob Bea
To: Kemkar, Neal;
Subject: Re: FINAL 30-DAY SAFETY REPORT
Date: Thursday, May 27, 2010 2:15:24 PM
Attachments: DHSG Goals Statement.pdf

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when does this report 'go public'. i would like to distribute to the members of our Deepwater Horizon Study Group ????....see attached summary of goals. we are ready to help as requested.

bob

Kemkar, Neal wrote:

> Final report and transmittal letter are attached, with thanks from the Secretary and the whole team.
>
> Neal
>
> **Neal Kemkar**
> Office of the Secretary
> U.S. Department of the Interior
> (202) 208-5379

--

Professor Robert Bea, PhD, PE
Department of Civil & Environmental Engineering
212 McLaughlin Hall
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60 Shuey Drive
Moraga, California 94556

Telephone 925-631-1587
Cell 925-699-3503
Email: BeaRAMS@[redacted]

From: Elmer Danenberger
To: Kemkar, Neal;
Subject: RE: FINAL 30-DAY SAFETY REPORT
Date: Thursday, May 27, 2010 2:18:02 PM

Thanks Neal. Couple of quick questions:

1. Is it OK to distribute the report to interested parties?
2. To whom should I direct press inquiries?

bud

From: Kemkar, Neal [mailto:Neal_Kemkar@ios.doi.gov]
Sent: Thursday, May 27, 2010 1:55 PM
To: Elmer Danenberger
Cc: Black, Steve; Hanley, Kallie; Ishee, Mary Katherine
Subject: FINAL 30-DAY SAFETY REPORT

Bud - Final report and transmittal letter are attached, with thanks from the Secretary and the whole team. We will be in touch shortly about next steps.

Neal

Neal Kemkar
Office of the Secretary
U.S. Department of the Interior
(202) 208-5379