Ultra-Deepwater Advisory Committee (UDAC)

March 1, 2012

Eighteenth Meeting

Meeting Minutes

Ultra-Deepwater Advisory Committee

I hereby certify that this transcript constitutes an accurate record of the Ultra-Deepwater Advisory Committee meeting held on March 1, 2012.

Daniel Daulton, Chair

Ultra-Deepwater Advisory Committee

Date

Ultra-Deepwater Advisory Committee (UDAC) Meeting March 1, 2012, Houston, Texas

March 1, 2012

The meeting was called to order at 8:00 am; Chair Daniel Daulton reviewed the approved agenda (Attachment 1). The presence of quorum of members was verified by the Committee Manager, Elena Melchert (Attachment 2).

Opening remarks were presented by Deputy Assistant Secretary for Oil and Natural Gas, Christopher A. Smith, the Designated Federal Officer (DFO) for the UDAC.

Report by the Portfolio Subcommittee, Mr. James Litton, Chair (Attachment 3)

Mr. Litton Described how the Portfolio Subcommittee was largely in agreement with the suggestions for research topics contained in the RPSEA Draft Annual Plan and DOE's 2012 Annual Plan. The Subcommittee commended RPSEA in reorienting their program to reflect a greater emphasis on matters concerning safety and accident prevention. The Subcommittee noted, however, that while there was a strong emphasis on the engineering aspect of increasing safety, relatively little emphasis was given to human behavior.

The Portfolio Subcommittee's findings and recommendations were then presented to the full Committee which was followed by discussion.

Discussion and Development of Findings and Recommendations

The UDAC discussed each finding and recommendation presented in the Portfolio Subcommittee report. Discussion continued until the UDAC reached consensus on a final set of findings and recommendations.

Discussion of the Executive Summary and the Cover Letter

The UDAC then turned to discussion about key points that should be included in the cover letter transmitting the UDAC report on findings and recommendations to the Secretary of Energy.

Instructions to the Editing Subcommittee

The Chair reminded the Committee that the role of the Editing Subcommittee was simply to smooth the report, and make changes to improve the readability of the report. The Editing Subcommittee has no authority to change the agreed to findings and recommendations.

Committee Calendar and Next Steps – Elena Melchert

Ms. Melchert reminded the UDAC of the process and procedure leading to its next meeting on March 8, 2012 (Attachment 4). The focus of the next meeting will be on the Committee's acceptance of the final report after preparation by the Editing Subcommittee.

After brief discussion, the meeting was adjourned.

Attachments

	Presenter	Topic
1	For the Record	Meeting Agenda
2	For the Record	Committee Members and Meeting Participant Attendance
3	Mr. James Litton	Report by the Portfolio Subcommittee
4	Ms. Elena Melchert	UDAC 19 th Meeting Notice

Attachment 1

Ultra-Deepwater Advisory Committee 18th Meeting, March 1, 2012 Houston Airport Marriott at George Bush Intercontinental 18700 John F. Kennedy Boulevard, Houston, TX

AGENDA

7:30 a.r	n. CDT Continental Breakfast/Check-In	Members & Public
8:00	Call to Order / Welcome / Meeting objectives Overview of the approved agenda	Dan Daulton, Chair
8:10	Opening Remarks Confirmation of Quorum	Christopher Smith Designated Federal Officer (DFO)
	Committee Discussion	Chair
8:25	Subcommittee ReportPortfolio Subcommittee	James Litton Subcommittee Chair
	Discussion and Development of Findings and Recommend	ations Chair
10:00	BREAK	
10:15	Continue Discussion and Development of Findings and Recor	nmendations
Noon	WORKING LUNCH	
1:00	Continue Discussion and Development of Findings and Recor	mmendations Chair
2:30	BREAK	
2:45	Executive Summary and Cover Letter	Chair
	Instructions to the Editing Subcommittee	
4:30	Committee Calendar and Next Steps March 8, 2012, 19 th Meeting via Conference Call	Elena Melchert Committee Manager
4: 45	Public Comments	DFO
5:00	Adjourn	Chair

APPROVED:

Christopher A. Smith, Designated Federal Officer

22 FEB 2012

Date

Ultra-Deepwater Advisory Committee Meeting Sign-In Sheet - March 1, 2012

Last Name	First Name	Organization	Initial
Cooper*	George A.	University of California, Berkeley	,
Danenberger, III*	Elmer P.	Offshore Consultant UNABI	UNABLE TO ATTEND
Daulton	Daniel J.	Baker Hughes	0)
Dokken	Quenton R.	Gulf of Mexico Foundation	, ,
Downs	Hartley H.	Baker Hughes	Ancoral
Foster	Douglas J.	ConocoPhillips	
Ikelle*	Luc T.	Texas A&M University	Jegg Ju
Litton*	James D.	Litton Consulting Group, Inc.	1 Sweek Mith
New	William C.	New Industries, Inc.	
Pye*	Stephen D.	Consultant	141
Srinivasan	Nagan	Deepwater Structures, Inc.	1
Wilson*	Mary Jane	WZI Inc.	1
Wood*	Lesli J.	Bureau of Economic Geology	3 MI JUE

^{*} Special Government Employee

Ultra-Deepwater Advisory Committee Meeting March 1, 2012

U.S. Department of Energy - Office of Oil and Natural Gas

Christopher Smith	Designated Federal Officer
Deputy Assistant Secretary	100
Elena Melchert	Committee Manager

National Energy Technology Laboratory

Roy Long # Co	Strategic Center for Natural Gas & Oil (SCNGO)
Chandra Nautiyal	Strategic Center for Natural Gas & Oil (SCNGO)
Eric Smistad #13	Strategic Center for Natural Gas & Oil (SCNGO)
Gary Covatch	Strategic Center for Natural Gas & Oil (SCNGO)
Jay Jikich	Strategic Center for Natural Gas & Oil (SCNGO)
Skip Pratt	Strategic Center for Natural Gas & Oil (SCNGO)

Contractors

President			
Vice President, Onshore			
Vice President, Ultra-Deepwater			
Meeting General Support	at the control of the		
Minutes/Meeting Facilitation			
General Support			
Registration Support			
	Vice President, Onshore Vice President, Ultra-Deepwater Meeting General Support Minutes/Meeting Facilitation General Support		

Ultra-Deepwater Advisory Committee Meeting Public Sign-In Sheet - March 1, 2012

E-mail	hopkinsheapi, org	Julian. phan @ bree. gos						
Phone	202 6439							
Organization	API	SSEE		8				
Name	Holly Hanking	Julian FLAM						

UDAC Portfolio Subcommittee 01 March 2012

General Comments, Findings and Recommendations

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General Comments

- The Portfolio Subcommittee is largely in agreement with the suggestions for research topics contained in the RPSEA 2012 Draft Annual Plan and the UDAC 2012 Draft Annual plan.
- The subcommittee commends RPSEA in reorienting their program to reflect a greater emphasis on matters concerning safety and accident prevention
- The Subcommittee notes, however, that while there is a strong emphasis on the engineering aspects of increasing safety, relatively little emphasis is given to human behaviour.

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Findings & Recommendations

Relevant Prior Findings and Recommendations

In the UDAC's letter of 11 April 2011 to the Energy Secretary, our *finding* number 4 (p. 9) mentions "...research aimed at discovering the fundamental attitudes of rig personnel to health and safety issues...(and) to determine the acceptance of new safety regulations by the people affected...". Our *recommendation* 4B was to "Conduct a review of published and unpublished information which analyzes the attitudes and knowledge of personnel and other peer groups towards health, environment, safety and operational issues through the entire drilling and completion process to determine if training is effective and if safety procedures are carried out effectively".

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Findings & Recommendations, (Cont.)

Finding 1.0: Current projects are relevant and important.

- Recommendations 1.0:
 - i. Continue work on instruments and data analysis (expert systems) to improve decision making capability
 - ii. Continue work on Hazards and Risk analysis

<u>Finding 2.0</u>: Current programs do not adequately address the human factors related to accident prevention.

➤ Recommendation 2.0: Increase the emphasis in the areas of human interaction. Examples may be training or simulators such is done in the nuclear programs and aviation. Effective implementation may require that human factors be added to the 2012 Recommended Objectives to give it a higher priority. The Ocean Energy Safety Committee should be asked to keep UDAC aware of its progress and challenges in these areas so that the UDAC resources can be tapped for support.

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Findings and Recommendations (Cont.)

- Finding 3.0: Elimination of the Risk Assessment Subcommittee of the UDAC was noted in the discussions at UDAC 17. Elements of the LANL program for the Ocean Safety Committee of the DOI, chaired by Christopher Smith were encouraging as to their provenance in the safety domain mission of the DOE. However, in view of Finding 2.0, above, RPSEA program coordination with LANL in this area should be explicitly addressed in the 2012 DAP.
- Recommendation 3.0: Define explicit projects for RFPs in the RPSEA 1012 DAP for coordination with LANL and/or RPSEA contractors pursuant to Recommendation 2.0
- Finding 4.0: The 2012-2014 programs may represent the final phase of this program. There is a limited amount of time and money between now and 2014; given the commitments already made to continuing programs.
- ➤ Recommendation 4.0 In view of Finding 2.0 and 3.0, it is further recommended that a high proportion of the remaining, uncommitted funds be committed to programs to projects that deal specifically with safety or environmental concerns (examples are human factors and the instrumentation and expert systems needed to improve decision making). This is distinct from safety or environment topics that may be part of a program of research into another area (example may be programs in hydrates, seismic, risers, etc) Also, part of the sunset process, it is recommended that the Secretary should assure that suitable technology transfer processes are put into place to capture the benefits of the prior research.

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Findings & Recommendations (Cont.)

- <u>Finding 5.0:</u> Relative to the environmental and technical challenges of drilling and completion in arctic waters, even if not in Ultra Deep Waters, there may be too little research into the effects of the conditions in such waters on equipment and especially on methods to mitigate spills and on operating conditions for crews.
- Recommendation 5.0 Commit initially modest funds to characterize the salient differences between operations in the GOM and North Sea environments and those to be encountered in deep water drilling and completion in arctic waters to assess the risks and need for more research. Research into platform structures which are not ship-like but which are designed to be more robust against trapping by ice and against ice berg collisions may be fruitful areas for understanding the dynamics of this environment.
- <u>Finding 6.0</u>: Extensive VIM studies have been completed by the industry for SPAR and other types of structures.
- Recommendation 6.0 The RPSEA 2012 proposed VIM study for Deep Draft Semi-Submersible may not be as valuable as studies for reduced risk in drilling and production in ultra deepwater, as the committee believes that a substantial amount of work in this area is already underway elsewhere. This resource allocation should be reviewed carefully.

Findings & Recommendations (Cont.)

- Finding 7.0: In the presentations by and subsequent discussions with NETL and LANL, it was clear these bodies are NOT aware of existing commercial expert (case-based) systems that alert drillers to potential drilling hazards (such as stuck pipe, loss circulation, etc) before they occur. Along with an "alert", the systems also provide recommendations (which can be in the form of best practices and/or Standard Operating Procedures) that the driller can use to mitigate the potential risk.
- Recommendation 7.0: The Secretary should direct that some funds be spent to determine the present state of the art in commercial expert (case-based) systems, to identify common benefits from such and to encourage their deployment for the Benefit of the DOI Ocean Safety Committee, through its contractors, LANL and NETL. Lessons from the existing experience of Shell and Baker-Hughes, among others, should be sought.

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Attachment 4

19th Meeting Ultra-Deepwater Advisory Committee March 8, 2012 Conference Call

Time: 1:00 p.m. EST

Date: Thursday, March 8, 2012

Purpose: During this meeting, the Committee will vote to accept the final report of

comments and recommendations discussed at the meeting of March 1, 2012,

and assembled by the Editing Subcommittee.

Instructions: Please call-in before 1:00 pm EASTERN. The conference call-in line will

be open as of 12:45 pm. If you experience any problems connecting to the conference call, please contact The Office of Oil and Natural Gas at 202-

586-5600.

Toll Free Number	1-800-857-5148
Passcode	40724

PUBLIC ACCESS: 1000 Independence Avenue, SW, Washington, DC 20585

AGENDA

12:45 p.m. EASTE	RN Registration; Begin Member call in
1:00 p.m.	Roll Call; Opening Remarks by the Committee Chair; Remarks by Designated Federal Officer; Report by the Editing Subcommittee; Member discussion regarding final report; Vote of Approval of Committee final report. Member discussion regarding next steps
3:00 p.m.	Adjourn
APPROVED:	uristopher Smith, Designated Federal Officer Date