



IADC Well Control Committee Meeting Minutes
Wednesday 17 November 2010
Falck Alford Training Center, Houston TX

John Muse of Falck Alford, welcomed all and provided building safety information. Attendees introduced themselves and Brian Maness, Committee Chairman, of Diamond Offshore Drilling Inc., called the meeting to order.

IADC Anti-Trust Policy and Guidelines

Mr. Maness reviewed IADC Anti-Trust Policy and Guidelines, referring attendees to the IADC website for a copy. The latest revision of the Anti-Trust Policy and Guidelines dated March 2009 is available at <http://www.iadc.org/antitrust>.

Current Industry Perspective on Well Control

Steve Kropla, IADC

Mr Kropla spoke briefly on Macondo and the outfall of the event. Mr Kropla said industry should expect:

- the industry/Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) working relationship to be less favorable;
- BOEMRE to put in place more prescriptive regulations;
- While much onerous legislation is not expected to go forward during the “lame duck” session of Congress, still much legislative change is expected in the long run.

On a positive note, Mr Kropla said IADC members have pulled together to positively respond to the Macondo incident. Members are looking within their own training organizations for holes and any needs for improvement. He asked that industry, as a whole, take a more proactive approach to reviewing and improving well control operations and training.

Mr Kropla pointed out that, with the Macondo incident and post-Macondo activities, IADC and the Well Control Committee seems to have overlooked an important WellCAP milestone. WellCAP observed its 15 years anniversary this year, a milestone that was reported in an article published in the Wall Street Journal today. The article further stated that industry-wide standards for well control are minimal compared to other high risk industries.

Mr Kropla concluded his presentation by saying, “The industry will improve” and encouraged Committee members to continue their efforts to bring about these improvements.

Interim Final Rule: Oil and Gas and Sulphur Operations in the Outer Continental Shelf – Increased Safety Measures for Energy Development on the Outer Continental Shelf (US)

Brian Maness, Diamond Offshore

Mr Maness distributed a handout: “Fact Sheet: Enhanced Requirements to Resume Deepwater Drilling Activities” published by BOEMRE that states the new government regulations for deepwater drilling. He highlighted several points on the Fact Sheet and opened the floor to discussion of the requirements listed in the Fact Sheet.

A discussion ensued on how industry is to proceed.

Mr. Kropla mentioned that API RP53 may address subsea engineer qualifications to address drilling safety rule.

Discussion of new regulation raised questions, pointing out words, statements or expectations that are unclear, leaving industry unclear as to how to respond.

- What is deepwater? – The general consensus is that deepwater refers to any operation involving a subsea stack. It was noted that this question had been discussed during the development of IADC's Deepwater Well Control Guidelines.
- Drilling Safety Rule – “Establish minimum requirements...” – Should this be for personnel who operate critical blowout preventer equipment or for those who maintain the equipment? Is it for the Driller who shuts in the well? Is it for the Subsea Engineer who maintains the equipment?
- Drilling Safety Rule – “Ensure that rig personnel are trained in deepwater well control ...” – What does this mean? How does it differ from deepwater well control training already included in WellCAP curriculums?

Other comments from attendees are noted below.

- Include subsea engineers in WellCAP training.
- The Training Committee initiated a special project at its last meeting to define the qualifications and training required for subsea engineers. The project team, which includes Transocean, is writing Knowledge, Skills, and Abilities (KSAs) for subsea engineers. As this position is deemed more focuses on maintenance rather than operations, the KSAs are being defined in terms of maintenance responsibilities.
- BOEMRE seems to determine deepwater by stack placement.
- Chevron reviewed the Deepwater Well Control Guidelines and suggested that there is a need for improvements in Guidelines criteria and material. Chevron further identified specific topics not currently addressed in the guideline. These include:
 1. riser degassing;
 2. fluids in solution in riser;
 3. riser margin – definition and concept difference;
 4. bi-directional test rams vs. test plugs; and
 5. pressure testing connections, and
 6. management of sheerables.
- BOEMRE may not know how to articulate deepwater well control risks, therefore, it was suggested that Well Control Committee members identify deepwater well control risks and formulate controls for those risks. The risk assessment and controls should then be presented to BOEMRE.
- A. J. Guiteau, Diamond Offshore Drilling Inc., thinks a safety case will address the risk assessment and controls concerns. Mr Guiteau pointed out that high pressure/high temperature topic also needs to be added to the Deepwater Well Control Guidelines. He further recommends that a deepwater group of the Well Control Committee be established to formulate a formal response to the new BOEMRE regulations.
- When asked about the status of the Curriculum Subcommittee' review of the Drilling curriculum, Goran Andersson said the Subcommittee is currently correcting errors, punctuation and repetition, etc. in the curriculums, and is not yet addressing major changes as additional content needed.
- Gary Nance, Moody International, recommends a WellCAP Plus approach to delivering additional “deepwater” content in the WellCAP curriculum. A Deepwater Well Control Certificate should be given for such training.
- Human factors analysis was suggested as relevant to the issues being discussed. Reference was made to the ASPN standard.
- Also discussed was the BOEMRE staff's lacks knowledge and skills needed to properly regulate the industry, and that BOEM staff are not attending training to develop needed knowledge and skills.

Committee members were asked to document their questions about the new BOEMRE regulations, compile the questions, and form a response team to respond to these questions. Mr Kropla said he would be willing to compile members' questions and later submit the Committee's responses to BOEMRE. Volunteers to serve on the Response Team were: Paul Sonnemann (Chevron), Mark Mazzella (BP), and Mark Franklin. Members should be submitted their comments and questions to Brenda Kelly, IADC.

Action Items:

1. Committee members — submit your questions about new BOEMRE regulations to Brenda Kelly.

Well Servicing Committee Feedback on Coiled Tubing Curriculum Document Edits

Barry Cooper, WCS

Mr Cooper reported on the comments of the Well Service (WS) Committee on the proposed changes to the Coiled Tubing Curriculum. Two handouts were distributed: Handout # 2. Well Servicing Committee Report; and Handout 3: Target Audiences for WellCAP Stand-Alone Curriculums.

Main points of the WS Committee's feedback were as follows.

- The Fundamental Coiled Tubing (CT) curriculum should require the same number of hours as the CT Supervisor Level course (be a 36 hour course instead of 20-hour course). In effect the Fundamental course should be the same as the Supervisor course, except for different (lower) expectations for testing at the Fundamental level.
- Target audiences for the CT courses were defined as supervisor, choke operator, pump operator and assistants/helpers.
- In all well servicing courses, position terminology should be synchronized with the level of training. The target audiences for Well Service-related WellCAP courses are being reviewed by the WS Committee. Final recommendations on courses target audiences by positions will come later. Table of positions that are currently in place for WS courses are listed in Handout #3.
- The title "Well Servicing" should be changed to "Production Services", which is a broader term.
- The Helpers should be deleted from the Fundamental and Supervisory courses and be listed on the Introductory course only.

The WS Committee is in the process of identifying well service positions and describing those positions by responsibilities.

Action Items:

1. Barry Cooper (WCS) — deliver Committee's request of WS Committee to define well service positions by function.
2. Vote on the proposed Coiled Tubing curriculum edits will be postponed.

Approval of Coiled Tubing Curriculum Edits

Brian Maness, DODI

Given the significance of the WS Committee's comments and recommendations for additional changes, Brian Maness announced that the vote to finalize the Coiled Tubing curriculum edits would be postponed.

Curriculum Subcommittee Report

Goran Andersson, Chevron

Mr Andersson reported the status of the Drilling curriculum review, indicating that:

- Errors and punctuation in the curriculum documents are being corrected, and repetitions eliminated;
- Some new technologies have been added to the curriculum; and
- Operations that may need curriculum development have been identified.

Mr Andersson asked for help with the curriculum review. He said more member representation on the subcommittee would be ideal.

Mr Andersson further indicated IADC should consider hiring technical writers to rewrite the curriculum documents. He suggested that members could contribute funds for the effort. It was pointed out that the WellCAP Plus program development was funded by operator members.

During discussions, members offered the following:

- University resources could be utilized to develop program documents. The WellCAP Plus Facilitator Certification Course, developed members with assistance from Texas Engineering Extension Service, is an example of technical assistance with an accreditation product development.
- The subsea criteria should be renamed “deepwater”.
- The subsea curriculum should be expanded, and possibly become a separate course.
- With the Presidential Commission Report to be released soon, other topics for curriculum update may be identified.

Lunch was provided by **Falck Alford**.

Vote on WellCAP Proposal: Change in Methodology for Combining WellCAP Courses

Goran Andersson, Chevron

In a brief discussion preceding the vote, members asked for a review of the proposal. It was pointed out that the proposal would create 2 distinct paths of well control training, one for drilling operations and another for well services operations. Questions followed.

The vote was held. Brenda Kelly pointed out that the vote would not be final until all absentee ballots have been received and counted. Absentee voting will continue until Friday, 19 November 2010.

WellCAP Testing Protocol – Open Book, Closed Book

A. J. Guiteau, DODI

Mr Guiteau reviewed the evolution of the WellCAP program, and reported the original intent of the testing process was based on the test being closed book. Mr Guiteau recommended that closed book testing be the only permitted process for testing.

Mr Guiteau suggested that it would be valuable to have professional review of WellCAP test questions. This should be done during the process of developing standard test questions and prior to entering the test questions into the WellCAP Test Question Database.

Several points were made during discussions that followed Mr Guiteau's presentation.

- There is value in employees knowing how to use their Well Control manual and be able to locate reference information quickly during a well control event. Relying on memory can result in faulty execution. The Oxy WellCAP program was developed around the manual. Students are not given handouts of the slides; they start using the manual from the first day. The decision to not allow open book testing detracts from Oxy's ability of encouraging the use of the manual.
- In response to the point that all "professional" types of accreditation do not allow open book testing, a counter point was made that the WellCAP Plus Facilitator Certification course training emphasizes enhancement of adult learning and retention by involving multiple senses during the learning activity. If a student is allowed to research the material (the interactive requirement- to see, hear, say, and do) to answer a question then the retention percentage of that material is higher.

- Open book testing puts the burden on the program to frame questions so that the student cannot "look up the answers" in a verbatim manner.
- Open book testing also re-enforces where material is located in the manual for future reference during an actual event.

Mr Guiteau also recommended IADC have the ability and right to make changes and corrections to WellCAP accreditation criteria without a vote of the committee. This recommendation was based on the fact that IADC is the accreditation society and, therefore, has ultimate responsibility for the program. Authority over administrative and quality control requirements was cited as the most urgent authority needed.

Standing Committees

Brian Maness, DODI

Mr Maness reviewed the role of current Well Control Committee standing Subcommittees.

Curriculum Subcommittee — Periodically reviews each of the WellCAP curriculums and makes recommendations for curriculum changes. Chairman: Goran Andersson, Chevron

Testing — Recommends testing protocol for the WellCAP curriculums and develops WellCAP test questions. Chairman: Paul Sonnemann, formerly Chevron.

Simulation — Reviews existing simulator products' capabilities and recommends procedures for simulator usage in WellCAP curriculums. Chairman: Steve Vorenkamp, Wild Well Control

Quality Control & Audits — Formerly the Audit Subcommittee, this recently reorganized Subcommittee reviews and recommends WellCAP accreditation criteria that impact WellCAP program quality, including training provider performance as well as student performance; establishes training provider audit requirements and recommends audit protocol. Chairman: A. J. Guiteau, Diamond Offshore Drilling Inc.

Accreditation — Newly formed, this Subcommittee will oversee all aspects of WellCAP accreditation, from development of accreditation criteria to IADC's administration of the WellCAP program. Chairman: To be determined.

IADC Report

Brenda Kelly, IADC

Ms Kelly reported on the following.

- WellCAP Instructor Observer Qualifications – Instructor Observers are used to establish the amount and quality of instruction time or simulator hours a WellCAP instructor applicant submits as demonstration of satisfying part of the instructor qualifications. Instruction observer qualifications have not been defined in the new WellCAP Instructor Qualifications. Ms Kelly asked for members' input as to what constitutes acceptable qualifications for official observers. Members recommended the observer be qualified at the level for which the instructor applicant is seeking approval. Acceptable evidence of qualifications would be a WellCAP certificate at the highest course level the instructor applicant is seeking.
- IADC Well Control events – Well Control Middle East Conference and Exhibition to be held in Manama, Bahrain on 29-30 November 2010. Well Control Roundtable to be held on 1 December 2010 following the Middle East conference.

Open Discussion

In open discussions, the following topics were addressed or suggestions made.

- IADC should be more aggressive in fund-raising to support well control activities.
- How can members share information on events?
- Maybe WellCAP training should be increased to 2 weeks, rather than the current 1 week course. Chevron and BP are already conducting 2-week WellCAP courses.
- Simulation should be eliminated from Well Servicing courses if courses are delivered as two separate courses.
- Will Workover/Completion and Well Servicing courses have a subsea component?
- International Alliance of Well Control (IAWC) – a joint alliance between IADC and International Well Control Forum. Training providers participating in the IAWC deliver WellCAP training and administer the IWCF test. A joint IADC-IWCF certificate is issued. Richard Grayson, Nabors, reported that in the beginning of the alliance, the IWCF test was reviewed to assure harmonization with WellCAP curriculum.
- How can we insure quality and consistency in such a large system (as WellCAP)? It was pointed out that IADC is an association acting as an accrediting agency. It is imperative that there is assurance of conflict of interest avoided and consistency of administration and delivery be maintained.
- Steve Kropla indicated that IADC wants to eliminate the 90 day “grace period” for renewal of WellCAP certificates.

Next meeting — TBD

Suggested Topics: API RP57

Adjourn — Meeting adjourned at 2:45 p.m.

Attendance:

Name		Company Name
David	Egbert	Baker Hughes
Ron	Bohuslavicky	Boots & Coots Inc.
Scott	Randall	Boots & Coots Inc.
Mark	Mazzella	BP
Michael	Schulenberg	Check Six Training Systems
James	O'Connor	Chevron
Goran	Andersson	Chevron
Paul	Sonnemann	Chevron
Chuck	Boyd	Cs Inc.
Tommy	Van	Cudd Well Control
Dennis	Corley	Cudd Well Control
Brian	Maness	Diamond Offshore
AJ	Guiteau	Diamond Offshore
Shawn	Geissler	Drilling Systems (UK) Ltd
Dave	Genung	ExxonMobil
Janelle	Galvan	Falck Alford
Andy	Erwin	Falck Alford

Bob	Burnett	Hercules Offshore
Brenda	Kelly	IADC
Marlene	Diaz	IADC
Steve	Kropla	IADC
Jesse	Holster	International Drilling Schools
C. Mark	Franklin	IPT Global, LLC
Logan	Boudreaux	M&O Americas
Richard	Grayson	Nabors Offshore Corp.
Bob	Cowan	National Oilwell Varco
Benny	Mason	Occidental Oil & Gas
Borre	Fossli	Ocean Riser Systems
James A.	Dech	Ocean Riser Systems
Gary	Nance	Randy Smith Training Solutions
Erdem	Catak	Safekick
Ossama	Sehsah	Schlumberger
Gabe	Gibson	Shell E&P
Malcolm	Lodge	Transocean
Kenneth	Filipchuk	Weatherford
Barry J.	Cooper	Well Control School
Larry E.	Andrews	Wild Well Control, Inc.

HANDOUT 1
**Fact Sheet: Enhanced Requirements to
Resume Deepwater Drilling Activities**

In order for an operator to resume deepwater drilling, it is required to comply with existing and newly developed regulations and standards, including Notice to Lessees (NTL), 2010-N05 (Safety NTL), NTL 2010-N06 (Environmental NTL) and the Interim Final Rule (Drilling Safety Rule). BOEMRE also plans to conduct inspections of each deepwater drilling operation for compliance with BOEMRE's regulations, including but not limited to the testing of BOPs, before drilling resumes. As companies resume operations, they will also need to comply with the Workplace Safety Rule (SEMS Rule) within the deadlines specified by the regulation.

Under the Secretary's October 12 decision, before BOEMRE approves any deepwater drilling:

- Pursuant to applicable regulations, each operator must demonstrate that it has enforceable obligations that ensure that containment resources are available promptly in the event of a deepwater blowout, regardless of the company or operator involved. The Department of the Interior has a process underway regarding the establishment of a mechanism relating to the availability of blowout containment resources, and Secretary Salazar said he expects that this mechanism will be implemented in the near future.
- The CEO of each operator seeking to perform deepwater drilling must certify to the BOEM that the operator has complied with all regulations, including the new drilling safety rules.

SAFETY REQUIREMENTS NTL

To comply with the Safety NTL, operators will be required to:

- Submit a general certification from the CEO stating that the operator is knowledgeable of all operating regulations at 30 CFR 250 – Oil and Gas and Sulphur Operations in the OCS. The certification should also state that the operator is conducting its operations in compliance with those regulations.
- Review its operations to ensure that they are performed in a safe and appropriate manner as required by 30 CFR 250.107(a)(1).
- Submit blowout preventer and well control system configuration information for the drilling rig that will be used.
- Have a detailed physical inspection and design review of the blowout preventer performed by an independent third party.
- Obtain an independent third party verification concerning the blowout preventer's compatibility with the drilling rig to be used and the specific well design.
- Have in place a secondary control system with remote operated vehicle (ROV) intervention capabilities for the blowout preventer as well as an emergency shut-in system.
- Test the mechanism for the ROV capabilities while the blowout preventer is onboard the rig prior to placement subsea.
- Obtain an independent verification that the blowout preventer's blind-shear rams are capable of shearing the drill pipe under the maximum anticipated conditions.
- If the blowout preventer's blind shear rams are activated in a well control situation, the blowout preventer must be physically inspected to ensure continued ability to operate.
- Certify through a Professional Engineer that all well casing designs and cementing procedures are appropriate for the purpose of the well under expected conditions.

Detailed specifications of the requirements can be found at:
<http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2010NTLs/10-n05.pdf>

ENVIRONMENTAL NTL

To comply with the Environmental NTL, operators will be required to:

- Include in any new Exploration Plan (EP) or Development Operations Coordination Document (DOCD) or as a supplement to a previously-submitted plan, a blowout scenario as required by 30 CFR 250.213(g) and 250.243(h).
- Submit a description of the assumptions and calculations that were used to determine the daily discharge rate of the worse case discharge scenario as required by the relevant CFR for the respective plan, exploration or development. (If the operator's worst case discharge volume exceeds the amount stated in the approved Oil Spill Response Plan, the Oil Spill Response Plan will have to be modified.)
- Submit a description of the enhancements undertaken to prevent a blowout, to reduce the likelihood of a blowout, and conduct effective and early intervention in the event of a blowout.

Detailed specifications of the requirements can be found at:
<http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2010NTLs/10-n06.pdf>

DRILLING SAFETY RULE

The Drilling Safety Rule incorporates many of the requirements stated in the Safety NTL. In addition to those requirements outlined above, additional requirements from the drilling safety rule that operators are required to comply with include:

- Comply with the recommended practices cited in the industry document, "API Recommended Practices 65 – Part 2 Isolating Potential Flow Zones During Well Construction,"
- Provide written description of how the best practices were evaluated; also must identify mechanical barriers and cementing practices to be used for each casing string.
- Submit as part of APD schematic drawings of all control systems and control pods.
- Perform a negative pressure test to ensure proper casing installation. This is done during drilling for the intermediate and production casing strings.
- Establish minimum requirements for personnel authorized to operate critical blowout preventer equipment.
- Test at least one set of rams on the blowout preventer using the ROV intervention methods during the initial test on the seafloor.
- Test the deadman system (one of the emergency shut-in system components) during the initial test of the blowout preventer on the seafloor.
- Receive approval from the appropriate District Manager prior to displacing kill-weight drilling fluid from the wellbore, and must submit the reasons for the displacement and provide detailed step-by-step procedures for the safe displacement.
- Ensure that rig personnel are trained in deepwater well control and the specific duties, equipment, and techniques associated with deepwater drilling.

Detailed specifications of the regulations can be found [here](#).

--BOEMRE--

HANDOUT 2

WELL SERVICING COMMITTEE REPORT

November 17, 2010

1. Feedback on Coiled Tubing Curriculum Document Edits

1. Fundamental Level should require same number of training hours as the Supervisor Level.
2. Position terminology synchronized with levels of training.

Coiled Tubing:

1 -Supervisor 1 -Choke Operator 1 -Coil Operator 1 -Pump Operator 2 - Assistants/Helpers

3. Introductory Level can be provided in a combination format.

II. Additional Well Servicing Topics

1. Position terminology synchronized with levels of training should be inclusive for all well servicing lines.

Snubbing:

1 -Supervisor 1 -Operator 1 -Lead Hand 2 or 3 -Specialists

Wireline:

1 -Engineer (sometimes referred to as a Cased Hole Engineer; this is a non-educational classification) 2 -Operators or Riggers

2. Well Servicing title discipline should be changed to Production Services. Production Services better identifies the disciplines related to well intervention services.

HANDOUT 3

Target Audiences for WellCAP Stand-Alone Curriculumms

<i>Course</i>	<i>COURSE LEVEL</i>		
	<i>Introductory</i>	<i>Fundamental</i>	<i>Supervisory</i>
Drilling	n/a	derrickman; asst drl; driller	toolpusher, superintendent; drilling foreman
Workover	n/a	derrickman; asst drl; driller	toolpusher, superintendent; drilling foreman
Wireline	n/a	helpers; asst	supervisor; superintendent; project foreman
Coiled Tubing	n/a	coiled tubing unit supervisors, coiled tubing unit operators, pump operators (liquid and/or nitrogen), choke operators and helpers.	coiled tubing unit supervisors and asset company representatives
Coiled Tubing (Proposed)	n/a	CT operators, pump operators and helpers	CT choke operators and helpers
Snubbing	n/a	Helpers, Assistants, "Hands" involved with the operational aspects of the unit and who may act/operate	Unit Operators, Supervisors, Superintendents, and Project Foreman
UB Drilling	n/a	?	Asst Driller; Toolpusher; superintendent, onsite drilling consultant; UB equipment supervisor
Drilling/Workover-Completion	floorhand, derrickman	n/a	n/a
Well Servicing	New hires	n/a	n/a