

International Association of Drilling Contractors



Well Control Committee

19 February 2014

7 am – 12 pm

IADC
10370 Richmond Ave., Suite 760
Houston, TX

Minutes

8:00 – 8:05	Welcome <i>Mike Garvin, Patterson-UTI, Committee Chairman</i>
8:05 – 8:10	Facility Orientation/Safety and IADC Antitrust Guidelines & Policies <i>IADC staff</i>
8:10 – 8:20	Attendee Introductions <i>Mike Garvin</i>
8:20 – 8:30	Lessons Learned <p>Benny Mason (RigQA) provided a lesson learned involving a well control incident that occurred about a year ago in the Eagle Ford Shale area in Texas. While attempting to replace an annular element, the rig crew placed the 4-way valve to the vertical position, assuming this to be the “neutral” position. With the type of 4-way valve in use, the vertical position is “block” and pressure from the last position is trapped in the line. When attempting to rotate the annular cap with a joint of HWDP, they pulled hard (assuming that the cap was excessively tight) enough to bend the HWDP. The result was that the welds on the wellhead sheared and the entire BOP stack and wellhead rotated +/- 20 degrees. During repair, a second barrier was not placed in the well to replace the BOP barrier.</p> <p>Lessons learned:</p> <ol style="list-style-type: none">1. Employees’ lack of equipment knowledge<ol style="list-style-type: none">a. Difference between selector- and manipulator-style 4-way valvesb. Difference between “neutral” and “block” positionc. Lack of understanding of the accumulatord. Absence of an OEM equipment manual for the annulare. The cap had an O-ring seal and high torque is not required or recommended.2. Lack of rig procedures, MOC for process3. Lack of proper supervision4. Lack of proper barrier management
8:30 – 8:45	WCI Update <i>Cason Swindle and Malcolm Lodge, WCI</i>

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	<p>Malcolm Lodge provided a WCI update:</p> <p>Cason Swindle is now officially the Executive Director for WCI. Mr. Swindle has been working with Stephen Colville and Black & Veatch to develop a management plan. Mr. Lodge is collaborating with industry SMEs to redesign the curricula, assessments, instructor qualifications and train-the-trainer programs, and the new standard. Requirements for the administration of WCI are being developed with IADC's help. Mr. Lodge and Benny Mason are developing strategies for simulator use. Further discussions and a Q&A of WCI efforts are scheduled for immediately following this WCC meeting (11 to noon).</p>
<p>8:45 — 9:00</p>	<p>Review of Action Items <i>Mike Garvin</i></p> <p><u>Survey</u> Brenda Kelly said she had not received any feedback on the survey since the last meeting; however, she was able to get feedback from some members shortly before this meeting. This survey will allow us to identify those with well control expertise on specialized topics when it is needed. Action Item: Patty Tydings will build the survey and distribute it within 2 weeks.</p> <p><u>Volunteers for KSA Workgroups</u> Dr. Kelly (on behalf of Brooke Polk) explained that we still need drilling contractors to participate in the KSA workgroups, particularly the Marine Operations and Technical Maintenance KSA workgroups. Action Item: Brooke Polk will provide more specific information to all of the drilling contractors about participating in the KSA workgroups.</p> <p><u>Volunteers for Deepwater Well Control Guidelines</u> Members had been asked to contact Fran Kennedy-Ellis to participate in the development of the <i>Deepwater Well Control Guidelines</i>. Mrs. Kennedy joined the meeting shortly after this discussion and said two individuals had contacted her and that people who are interested can also contact the Chair of that committee—Louis Romo. Action Item: Mrs. Kennedy-Ellis will send out some information on the specific expertise she needs. See more information in the section below.</p> <p><u>2014 WCC Vice Chair Nominations</u> No one has been nominated since the last meeting. An offshore drilling contractor nominee is needed for the vice chair position, in keeping with alternating Chair and vice chair positions between offshore and onshore drilling contractors. Before the next meeting, Mr. Garvin will recruit a vice chair (action item).</p> <p><u>Simulator Guidelines from Chevron</u> Gary Nance discussed simulator guidelines on behalf of Malcolm Lodge.</p> <p><u>Volunteers for Gas-in-Riser Subcommittee</u> Paul Sonnemann was able to recruit additional participants for the GiR Subcommittee.</p> <p><u>Participants for Subsea Engineers Certification Program/Meeting</u> The drilling contractor participation in the Subsea Engineers Certification Program development process has been light. The group meets during the COS meeting tomorrow. WCC drilling contractor members are encouraged to be at that meeting. There will be a vote on whether the certification program will become an IADC program or an API program. One vote per company will be permitted. The meeting will be held at 8:30 a.m.. Contact Dr. Kelly if you need further information.</p>
<p>9:00 —</p>	<p>Deepwater Well Control Guidelines Update</p>

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9:15	<p><i>Louis Romo, Committee Chair</i></p> <p>Louis Romo, BP, reported on the Deepwater Well Control Guidelines document, which is 80% finished. About 75 SMEs are working on the chapters. The Steering Committee reviews the content. Mr. Romo explained that the document is in the peer review phase and that they could use some volunteers for a wiki forum committee (moderated online discussion group) who could provide expertise when questions are submitted. They would also benefit from having a few reviewers for the well control section of the Guidelines. Dr. Kelly suggests that WCC members provide feedback/comments directly to her so she can compile them.</p> <p>The Guidelines should be available in December 2014. There will be an eBook and a print version. The eBook will go out first and will be available on the IADC Bookstore on the website.</p> <p>Action Item: Dr. Kelly will set up workgroups comprising members with specific expertise for reviewing specific chapters. We will use the survey to determine workgroup members, so the WCC will need to submit their survey responses within 3 weeks of the time the survey is sent out.</p> <p>Action Item: Report on this effort at the next meeting.</p>
9:15 – 9:30	<p>Break</p>
9:30 – 10:15	<p>Industry Groups Update</p> <ul style="list-style-type: none"> • <u>API Subcommittee 16</u>—Alex Sas-Jaworsky (SAS Industries) (See below sub-bullets.) <ul style="list-style-type: none"> ○ API Spec 16A Specification on Drill-Through Equipment (TG-3) ○ API Spec 16C Specification on Choke and Kill Systems (TG-1) ○ API Spec 16D Specification on Drilling Well Control Systems and Equipment (TG-2) ○ API Spec 16RCD Specification on Rotating Control Devices (TG-6) ○ API RP 16ST Recommended Practice for Coiled Tubing Well Control Equipment Systems (TG-5) ○ API RP 16AR Repair & Remanufacture of Drill-Through Equipment (TG-7) <p>Mr. Alex Sas-Jaworsky provided an overview of API Standards activities which occurred during the API E&P Winter Standards Conference (January 20-22, 2014), held in Addison, Texas. Specific to the Well Control Committee, he provided an overview of issues related to API 16A, API 16C, API 16D, API 16RCD, API RP 16ST, and API 16AR. Mr. Sas-Jaworsky noted that the time to “discover” the content of API standards is not after publication but during document development when you have the ability to influence the process.</p> <p>Action Item: Dr. Kelly requested that Mr. Sas-Jaworsky provide IADC with the names and contact information for the chairpersons of the aforementioned groups so Well Control Committee members have a means for getting involved in the process. It was noted that communication between API and IADC needs to be improved and that drilling contractors should be helping to steer this effort, but it appears that they are not.</p> <p>Mr. Sas-Jaworsky noted that numerous changes had occurred within API Subcommittee 16 (Well Control), which has absorbed API STD 53 and API RP 59 in an attempt to make the manufacturing standards and recommended practices</p>

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more consistent between the documents. One new change is that once the documents (standards) have been published, the API Task Groups will immediately begin revisions and rewrites for the next publication (5-year intervals).

It was noted that API is no longer publishing standards or documents with ISO. As such, IADC Well Control Committee needs to be aware that all new revisions to API standards will be published as API-only documents and that ISO documents may or may not contain the latest API standards and requirements.

A brief review of API 16A was offered with a reported completion timeline for the next version by end of 2014. API 16A is the standard for all drill-through equipment used in well control, with a minimum component bore size of 7-1/16". Additional improvements ensure that this equipment will be manufactured to higher performance expectations.

A member asked about the relation between API 16A and API 16AR. A brief review of API 16AR was offered, explaining the current status of repair and remanufacture expectations. At this time, the OEM is not required to recertify a well control component if a third party refurbish firm can replace parts and take ownership of the parts and issue certificates of conformance. This document is still under development, and Mr. Sas-Jaworsky strongly recommended that IADC members contact API to get involved in the process.

API 16C is in the process of resolving negative comments from the latest letter ballot and is in the final stages before publication. Mr. Sas-Jaworsky noted that this version will include additional performance requirements, which may place existing equipment in noncompliance, regardless of whether operating onshore or offshore. Mr. Garvin discussed how we may get land drilling operators involved, but recognized that it was likely too late to have much input.

API STD 53 began as a recommended practice, but became an API standard on November 1, 2012. A WCC member noted that during a telephone conference call with the Texas Railroad Commission (TRC) prior to the November 2013 IADC Well Control Committee meeting, the TRC stated that they will begin to use API STD 53 as the rule for evaluating rig permits in the State of Texas starting January 1, 2014. The TRC representative also stated that they are looking to recruit auditors to work through API STD 53 and apply the standard to drilling permits.

Mr. Sas-Jaworsky also noted that the US Department of Interior will reference 30 CFR 250 and API STD 53 as the rule for drilling and well intervention operations on Federal lands.

The WCC membership entered a discussion regarding how the IADC interfaces with the TRC. It appears that there are some gaps between the new regulatory requirements and the recommended practices and standards employed, which may cause the TRC to start shutting down rigs that are not in compliance. Several WCC members raised concerns that 6 months between the publish date and effective date will not be enough time to read the new standards and meet the requirements.

Action Item: Dr. Kelly stated that she will investigate the new requirements and find out if we have an existing liaison with TRC, and if not, who could serve as liaison for the IADC.

API 16F (Specification on Marine Drilling Riser Equipment) and API 16R (Specification on Marine Drilling Riser Couplings) will merge into a single

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document and development is ongoing. As such, there is time for the drilling contractors to get involved in the preparation of these standards. Paul Sonnemann (SafeKick) indicated that he would like contact information for the chairman of API 16F to make sure that the IADC "Gas in Riser" Workgroup can get involved in the development of this standard.

API 16D (3rd Edition) is near completion and plans to go to letter ballot this year. One important feature in this revision is that the Boyle's Law calculation method for accumulators will be removed (currently Method 1). This change in API standards will have a direct impact on IADC training expectations when calculating accumulator capacity.

API STD 64 (Standard for Diverter Systems, Equipment, and Operations) used to be a recommended practice, but is now including manufacturing requirements along with recommended practices. Mr. Sas-Jaworsky strongly recommended that the IADC WCC contact API to get involved in the development of this new standard.

Mr. Sas-Jaworsky stated that the API Summer Standards meeting is scheduled to be held in Chicago, Illinois, from June 16 – 20, 2014, and that any IADC WCC member who is interested in participating in API standards development register to attend this meeting.

- API RP 59 (Well Control Operations): Bill Rau (Chevron)— **NO REPORT**
Note: This one is moving under API Subcommittee 16.
- API RP 64 (Diverter Systems Equipment & Operations): Alex Sas-Jaworsky (Sas Industries)
See in notes above.
- API RP 75 (Offshore Safety and Environmental Management Program): Julia Swindle (IADC) **NO REPORT**
- API RP 96 (Deepwater Well Design and Construction): Scott Randall (PlusAlpha Risk), Bill Rau (Chevron). See Mr. Randall's report in section below.
- API Bulletin 97 (Well Construction Interface): Scott Randall (PlusAlpha Risk), Bill Rau (Chevron). See Mr. Randall's report in section below.
- BSEE: Julia Swindle (IADC) **NO REPORT**
- Center for Offshore Safety: Julia Swindle (IADC) **NO REPORT**
- International: TBD **NO REPORT**

The contact information for the **API Subcommittee 16 (SC16)** is provided below for Chairman (Kent Grebing), Vice-Chairman (Mel Whitby) and Task Group Chairmen identified in the **API SC16** activities update presentation. Many of the Standards activities underway within API directly affect how we address well control concerns within the IADC Well Control Committee and the time to "discover" the content of the API Standards is not after publication, but during the development process.

It is strongly recommended that the WCC leadership consider the following steps to address API Industry Standards development activities and how IADC can provide support to these efforts:

1. Contact Mr. Kent Grebing (**API SC16 Chairman**) to establish a line of communication to determine the appropriate means for Drilling Contractors and Operators within the IADC Well Control Committee to actively participate in the API Standards development process. We may find that many of the API Task Groups already have participants that represent members of the IADC Well Control Committee, just not the same individuals who attend the IADC Well Control

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Committee meetings. This would be a good first step in avoiding duplication of representation and keeping the work product consistent.

2. Employ the IADC Expertise Survey to identify those individuals who have the technical ability to provide a positive "non-commercial" contribution to the development of those API industry standards that directly affect the work underway within the IADC Well Control Committee. If the API Task Groups do not have the Drilling Contractor or Operator representation that is identified on the Expertise Survey, then the IADC Well Control Committee can forward the name(s) to Mr. Kent Grebing or **API Staff** (Roland Goodman and Ed Baniak) for consideration in other Task Group work.

3. Although the IADC is an "International Association", we need to find a way to reference all relevant API Standards (**API Spec 16A, API Spec 16C, API Spec 16D, API Standard 53, API 16RCD, API 16F, API RP 16ST**, etc.) in the Well Control Committee training and competency development activities. The "heavy lifting" has already been done within the Task Groups for these API Standards and IADC should take advantage of the extensive work product as a baseline to reinforce the Training Curriculum and Competency process. Referencing existing relevant Standards will provide consistency in the "message" for proper well control practices.

4. Invite representation of **API Staff** in future IADC Well Control Committee meetings. As an **API SC16 Task Group** Chairman (TG-5), Mr Sas-Jaworsky is willing to continue providing status and activity updates of **API SC16** Standards development during the IADC Well Control Committee meetings. However, he feels that the Committee would be better served where a representative of **API** provides updates on other ongoing **API** activities that relate to IADC membership interests (e.g., SC5 for Tubing and Casing, SC7 for Drill Pipe, SC8 for Rig Structures, etc.).

The contact information for the SC16 Committee Chairmen is seen below:

API Subcommittee 16 Chairman: Kent Grebing (NOV) Office: 832-424-6251
Email: Kent.Grebing@nov.com

API Subcommittee 16 Vice-Chairman: Mel Whitby (Cameron) Office: 713-939-2572
Email: Mel.Whitby@c-a-m.com

API 16A Spec on Drill-Through Equipment: John Busby (Chevron) Office: 713-754-3238
Email: JBSR@chevron.com

API 16C Spec on Choke and Kill Systems John McCaskill (Expro) Office: 713-983-4953
Email: John.Mccaskill@exprogroup.com

API 16D Spec on Drilling Well Control Systems and Equipment
Brian Wright (CAD) Office: 337-369-3737 Email: BWright@cadoil.com

API 16F Spec on Marine Drilling Riser Equipment
George Tisdale (NOV) Office: 832-424-6241 Email: George.Tisdale@nov.com

API 16RCD Spec on Rotating Control Devices
Martin Culen (Blade Energy) Office: +971 4369-3627 Email: MCulen@blade-energy.com

API 16Q Design, Selection, Operation and Maintenance of Drilling Riser Systems
David Lewis (Blade Energy) Office: 972-712-8407 Email: DLewis@blade-energy.com

API S53 Standard for Blowout Prevention Equipment Systems for Drilling Operations
Frank Gallander (Chevron) Office: 832-854-7624 Email: FBGA@chevron.com

API S64 Standard for Diverter Systems, Equipment and Operations

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	<p>Tony Hogg (Pacific Drilling) Office: 832-255-0643 Email: T.Hogg@pacificdrilling.com</p> <p>API 16AR Repair and Remanufacture of Drill-Through Equipment Jan van Wijk (Shell) Office: +31 (0)70-447-6396 Email: Jan.vanWijk@Shell.com</p> <p>API 16ST Recommended Practice for Coiled Tubing Well Control Equipment Systems Alex Sas-Jaworsky (SAS Industries, Inc.) Office: 281-398-9207 Email: SASINDINC@cs.com</p> <p>API Staff: Ed Baniak Office: 202-682-8571 Email: BaniakE@api.org API Staff: Roland Goodman Office: 202-682-8135 Email: GoodmanR@api.org</p>
<p>10:15 – 10:35</p>	<p>Update on WCC Subcommittees & Workgroups</p> <ul style="list-style-type: none"> • <u>Curriculum Subcommittee</u> – Gary Nance, Chevron REPORT DURING WCI SEGMENT OF MEETING • <u>Simulator Subcommittee</u> – Benny Mason, RigQA REPORT DURING WCI SEGMENT OF MEETING • <u>Gas in Riser Workgroup</u> – Paul Sonnemann, SafeKick Paul Sonnemann reported on the work from the Gas-in-Riser (GiR) Workgroup. His group has 29 members representing 19 companies. Members who wish to get involved should contact Mr. Sonnemann to be put on the distribution list. The original four objectives involved developing a consistent guideline for GiRs, reviewing the guideline, and defining best practices for avoiding the problem of GiR. Transocean presented on the topic at the HSE Conference, but information in that presentation was the opposite of what Mr. Sonnemann’s committee had concluded. Therefore, he believes they need to get more input from experts on the topic. At the last meeting, the workgroup focused on detecting GiR. New technology may provide methods that we are not fully aware of yet and need to study. The objective of defining the best practices is creating much discussion, especially regarding acceptable and preferred pressures and methods for quantifying simple GiR and determining the critical factors. If we cannot quantify it, then we cannot know if our systems are effective. • <u>Barriers Workgroup</u> – Scott Randall, PlusAlpha Risk Scott Randall presented information on API RP 96 and 97 and on the Barriers Workgroup. The workgroup is studying how to define barriers and what adjustments need to be made based on new requirements. Recently, Mr. Randall has seen a great deal of outside influences on barriers. There seems to be a disconnect at the API between Q2 and the new RPs. We need to look at how the WCC collaborates with the HSE Committee on this topic. Action Item: BK – discuss with HSE Committee staff liaison if there is interest in WCC and HSE Committees collaborating on this issue.
<p>10:35 – 11:00</p>	<p>IADC News</p> <ul style="list-style-type: none"> • Well Control Incident Alert—Paul Breaux Dr. Kelly (on behalf of Paul Breaux, who is not present) is requesting input from the WCC to help further develop the Well Control Incident Alert system. This will be discussed in greater detail at a future meeting. • KSA project status—Brooke Polk Brooke Polk reported that seven of the workgroups have completed their work.

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	<p>Continuing and new workgroups include Marine Operations, Technical Maintenance, Crane-Rigger, and Company Man. Additional help is needed in the Marine Ops and Tech Maintenance groups. The Steering Committee and Review Team will look at all the work that has been done so far, particularly looking at what is being considered core competencies for the different positions to ensure that we are not setting the bar too high. Following that review, the IADC Executive Committee will begin their review. WCC members can provide comments when the main review period starts.</p> <ul style="list-style-type: none"> • Nominees for 2014 Vice Chairman (Offshore Drilling Contractor)—Brenda Kelly, IADC BK is seeking nominations for a drilling contractor representative who can participate in the WellCAP Review Panel for approving programs for accreditation. One Panel member has resigned and needs to be replaced. Panel members commit to about 2 hours per week to review applications for accreditation and make recommendations. We had one volunteer for this Panel: Shane Mendel, Hercules. <p>Members present approved Shane’s representation of the Committee on the Review Pane.</p> <ul style="list-style-type: none"> • Nominations for WellCAP Advisory Panel The WCT Advisory Panel is also requesting nominations.
	<p>Action Item: Mr. Garvin asked Patty Tydings to speak with Holly Shock about sending the notice out to a wider distribution list to get more people to attend this meeting, particularly drilling contractors. Members recommend that we provide breakfast and hold the meetings at other locations.</p>
11:00	ADJOURNMENT
11:00 – 12:00	<p>SPECIAL SESSION: Well Control Institute—Question and Answer Session <i>Cason Swindle and Malcolm Lodge, WCI, Moderators</i></p> <p>Regarding testing, expectations are that 70% is a passing score, but some safety critical questions will be pass/fail. There will be some piloting of the test. Industry will be providing questions to begin populating the database.</p> <p>The training providers want to know what new material will be included (barriers, risk management).</p> <p>A survey function is being added to the test.</p> <p>The WCI’s goal is to provide the proper focus for the positions/roles, how they align with the training levels.</p> <p>WellCAP Plus will be considered thoroughly in terms of human factors.</p> <p>The WCI is incorporating a continuing education element to the program. To maintain their credentials, employees will be required to complete continuing education courses.</p> <p>There has been much discussion about marine positions and what training they will need (at what level). We will need a liaison with the USCG because they are the ones who make the requirements for these marine guys.</p> <p>There have also been discussions about the combined subsea and surface certificate because trainees are currently spending most of their time working on subsea.</p> <p>Mr. Swindle and Mr. Colville met with four IWCF Board members in London and Aberdeen recently in an effort to maintain an open dialogue with them regarding how we can work together to combine the approach. They discussed the strengths of each and how to achieve some consistency. The Board members were receptive. The door</p>

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is open for continued discussions with them.

The plan is to have a common sense rollout, a phased, systematic approach.

WCI has intentionally included a cross-section of the industry in developing this new Standard. We are all aligned about going forward.

Attendance:

Name		Company Name
H. Gene	Wilson	Aberdeen Drilling School, Ltd
Calvin	Inabinett	Aerojet Rocketdyne
David	Hetherington	Asatte Press, Inc
Earl	Dietrich	Blade Energy Partners
Andrew	Frazelle	BP America
Jason	Sasarak	BP America
Lei	Zhou	BP America
Louis	Romo	BP America
Michael	Schulenberg	Check-6 Training Systems
Shaphan	Parker	Chesapeake Oilfield Services
Glenn	Henninger	Chevron
Gary	Nance	Chevron
John	Breidenthal	Chevron
Ambar	Acevedo	Chevron
Gary	Landrum	Consolidated Pressure Control
Chuck	Boyd	CS Inc
Seth	Rivera	Drilling Systems (UK) Ltd
Vance	Williams	EFC Group
David	Martin	Ensco plc
Tom	Proehl	Ensco plc
Michael	Stormonth	ERM
Shane	Mendel	Hercules Offshore
Karl	Callegan	Hercules Offshore
Brenda	Kelly	IADC
Patty	Tydings	IADC
Mark	Denkowski	IADC
Marlene	Diaz	IADC

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Kris	Wilson	Intertek
Larry	Schmermund	Intertek
Ruchir	Shah	Learn to Drill
Hubie	Fix	Life Cycle Engineering
Pat	Lyons	Lyons Petroleum Services
William (Bill)	Murchison	Murchison Drilling Schools, Inc
Willie	Lyon	Murchison Drilling Schools, Inc
John	Bottrell	Nomac Drilling Cooperation
Christy	McGehee	On & Off Solutions
Mike	Garvin	Patterson UTI
Frank	Klepper	Petroleum College International
Scott	Randall	Plu Alpha Risk Management
Benny	Mason	RigQA
Paul	Sonnemann	Safekick
Alex	Sas-Jaworsky	SAS Industries, Inc
Elton	Cherry	Transocean
Larry	Andrews	Wild Well Control Inc
Karen	Holmack	Wild Well Control Inc
Glenn	Shurtz	Wild Well Control Inc
Brian	Fowler	Wild Well Control Inc