IADC Well Control Committee
Meeting Minutes
5th December 2017
Moody Gardens Hotel & Conference Center
Galveston, TX USA

Well Control Committee Meeting

Welcome & Introductions

Pepper Harvell of Moody Gardens Security provided building safety information. Steve Kropla noted that the meeting was subject to IADC's Anti-Trust Policy and Guidelines

Mr. Kropla then welcomed Committee Chair Aaron Mueller and Vice Chair Pete Bennett of Pacific Drilling. It was noted Mr. Mueller had completed a two-year term as Committee Chairman. In accordance with Committee Practice, Mr. Bennett was stepping into the Chairman role effective at this meeting. Mr. Bennett provided Mr. Mueller with a plaque commemorating his service to the Committee.

Mr. Bennett announced that due to this changeover, IADC would like to have an offshore contractor member as Vice Chairman. He welcomed any volunteers or nominations from the Committee.

IOGP Well Control Incidents Database

Jim Powers of Chevron provided a presentation on the IOGP Well Control Incident Learnings Sharing. Topics for the sharing of learnings originated from industry incidents reported to the Well Control Incidents Subcommittee of IOGP's Wells Experts Committee (WEC).

After providing some background information on IOGP and WEC, Mr. Powers provided a demonstration of the IOGP web site to explain how the well control alerts could be accessed. The site is located at www.safetyzone.iogp.org.

Mr. Powers stated that the Well Control Incidents Subcommittee and the WEC's Competency and Training Subcommittee felt that more could be done to ensure that lessons learned are available to rig personnel. He noted that the incident reports are generally only being shared among operators. He proposed collaboration between the WEC and IADC to encourage training providers to include case study material from lessons learned in well control classes. He provided an example of a reformatted alert that had been repackaged as a potential training resource.

Those present were generally supportive about the initiative to generate training vignettes; some cited examples already under way to provide more scenario-based training. Other discussion focused on efforts to make sure the material presented is accurate, that the audience is well defined, and that a process exists to ensure sufficient detail to be useful to training providers.

It was suggested that a small group of well control experts be identified to review all the WEC well control alerts to help decide which were suitable for development as training vignettes. A number of those present expressed interest in participating in this effort. Mr. Powers said he would provide the Committee's feedback to the specific WEC Subcommittees as well as the larger group.

WellSharp Update

Gerardo Barrera and Mark Denkowski of IADC gave an update on WellSharp. Mr. Barrera noted that there had been more than 3200 WellSharp courses conducted in 2017, more than 230 courses a month with an average class size of five students. For the year, more than 37,000 students had been enrolled in WellSharp courses, with a 92 per cent passing rate and an average score of 83 per cent.

Mr. Denkowski discussed how the old "tracks" from the WellCAP system would be revised under WellSharp for the new Well Servicing Curriculum. These will include 32-hour Equipment Operator courses for Coiled Tubing, Snubbing, and Wireline, and a 35-hour curriculum for Workover courses. These courses will be designed for service company equipment operators who are primarily responsible for operational processes of well control.

The Well Servicing curriculum will also a include a 36-hour Wellsite Leader course designed for those responsible for the oversight of coiled tubing, snubbing, wireline, and workover operations. This course is not intended to replace or be equivalent to the Equipment Operator Courses.

Current WellCAP Well Servicing providers have until Dec. 15th to submit materials for transition to the new curriculum. After this date, they must pay a new application fee.

IADC is currently performing technical reviews of transition curriculum that have already been submitted. Test questions are currently going into the database with an anticipated pilot date of mid-January. The official launch of the WellSharp Well Servicing program is expected in March 2018, at which time the WellCAP Well Servicing program will be discontinued.

Regarding the WellSharp Plus course now under development, Mr. Denkowski said that the Human Factors curriculum has gone out for comment and edits have been made based on comments. The curriculum is now pending approval by the WellSharp Advisory Panel.

The WellSharp Plus course will be available for Drillers, Supervisors, and Engineers. It can be at time of recertification and can be taken after a person has successfully completed a regular WellSharp course at least once. The course incorporates real world well control scenarios in a team environment with Crew Resource Management and Human Factors content embedded. Launch is anticipated launch in June 2018.

The group took a short break.

Guiding the cultural shift by Implementing Well Operations Crew Resource Management

Paulo Barritz of Noble gave a presentation on implementing Crew Resources Management (CRM) for drilling crews.

Mr. Barritz stressed that interest in Human Factors is not new to our industry. Earlier human factors efforts in the industry include use of JSAs and work process. CRM is new to the industry, but should not be considered a "soft" skill. CRM is actually a set of non-technical skills that are crucial for safety and critical for operational efficiency.

He discussed the six core non-technical skills that make up CRM: Situational Awareness, Decision Making, Teamwork, Communication, and Performance Shaping Factors (such as the ability to work under stress). He emphasized that to successfully enhance these non-technical skills, workers need to be provided with the tools and techniques to support the desired outcome.

Mr. Barritz showed a video which portrayed a drill crew undergoing an exercise of a critical activity performed in a high fidelity simulator. He pointed out instances where the driller which distracted by a phone ringing which took his attention away from focusing on the critical situation underway.

He said he feels the industry is on the right path with CRM. Nevertheless, even in cases where it may be easy to sell, it can be challenging to apply. He provided these suggestions for companies interested in including CRM instruction into technical well control courses:

- Provide emphasis on the tools needed for the specific skills
- Include and practice check list follow up.
- Ask students to debrief exercises.
- Develop scenarios where participants need to make decisions.
- Develop scenarios where participants must challenge authority.

Verification of Compliance

Michael Fry of Deepwater Subsea provide a presentation on compliance requirements under various federal regulations and industry standards. “It’s not today that you should be worried about!” he noted, recalling that he was subpoenaed to testify at the joint MMS/USCG hearings into the Deepwater Horizon incident.

He reviewed the language in CFR250.730: What are the general requirements for BOP systems? The “You must ensure that the BOP system and system components are designed, installed, maintained, inspected, tested, and used properly to ensure well control.” The regulations reference the following API industry standards:

- API 6A - Specifications for Wellhead and Christmas Tree Equipment
- API 16A - Specification for Drill-through Equipment
- API 16C - Specification for Choke and Kill Systems
- API 16D - Specifications for Control Systems for Drilling Well control equipment and Control Systems for Diverter Equipment
- API S53 - Blowout Prevention Equipment Systems for Drilling Wells

Of these, perhaps the most comprehensive for BOP systems, is S53, the purpose of which is “to provide requirements on the installation and testing of blowout prevention equipment systems on land and marine drilling rigs…”

Mr. Fry noted that one challenge to guaranteeing compliance with regulations and standards is often a failure to proper adhere to procedures. This can be due to a number of factors, including accuracy, practicality, optimization, and usage. He explained that they may be inaccurate, or out of date. People may find procedures impractical because they are unworkable, make the work more difficult, and because they are too restrictive and time consuming – if followed to the letter, the job would not get done in time.

Other factors inhibiting adherence to procedures are that people usually find a better way of doing the job or they do not describe the best way to carry out the work. Also, experienced people may feel they doing need them and resent being told how to do their job. In other cases, people prefer to rely on their own skills and experiences or they assume they know what is in the procedure.

Companies should perform regular audits on:

- People
- Documentation
- Operational proficiency (assessment of maintenance procedures, operational procedures, critical spares management)
- Asset management
- Regulatory Compliance

Supplemental audits can provide Objective Quality Evidence – a way to "Trust But Verify". These audits can consist of the following:

- Vertical Audits
- Horizontal Audits
- Surveillance
- Preventative Maintenance Spot Checks

Finally, Mr. Fry pointed out the need for all personnel to be properly trained to perform their jobs, and emphasized employers are responsible for ensuring this.

Subcommittee reports

Well Control Practices Subcommittee: Paul Sonnemann, SafeKick – Mr. Sonnemann gave an update on the Well Control Practices Subcommittee. Since very few people attended the last meeting, there was no further development on the scope of Subcommittee. Mr. Sonnemann urged more people to be involved on the Subcommittee. Intent is not to write document. SC has list of conventional practices they are interested in.

Curriculum Subcommittee: Matt Parizi, Chevron – There was no report from this group.

Simulator Subcommittee – Michael Arnold, Intertek – There was no report from this group.

Barriers Subcommittee – Scott Randall, PlusAlpha Risk – There was no report from this group.

Discussion & Next Meeting

Mr. Bennett again requested nominations for a new Committee Vice Chairman from an onshore contractor to maintain the traditional rotation.

The next Well Control Committee meeting will be at 9 a.m. on Wednesday, 14th March 2018 at IADC's Crown Center in Houston. The meeting will be preceded by a Drilling Contractors Roundtable from 8 a.m. to 9 a.m.

Attendance:

Name		Company Name
Harish	Patel	**ABS**
James	Knight	**BP**
Charlie	Holt	**BP**
Frank	Pearson	**CHEVRON**
Dolan	Richard	**CHEVRON**

Marshall	Conway	**C-NLOPB**
Michael	Fry	**DEEPWATER SUBSEA**
Euan	Kennedy	**DRILLING SYSTEMS**
Derek	Vioen	**DRILLING SYSTEMS**
Robert	Kemper	**EXXONMOBIL**
Trevor	Bishop	**EXXONMOBIL DEVELOPMENT COMPANY**
Rick	Cannon	**GATES**
Gerardo	Barrera	**IADC**
Steve	Kropla	**IADC**
Marlene	Betancourt	**IADC**
Mark	Denkowski	**IADC**
Aaron	Mueller	**INDEPENDENCE CONTRACT DRILLING**
Julio	Ochoa	**INTERNATIONAL TRAINING SERVICES**
Bill	Murchison	**MURCHISON DRILLING SCHOOLS**
Laura	Ringler	**MURCHISON DRILLING SCHOOLS**
Chris	McGehee	**NOBLE DRILLING**
Peter	Bennett	**PACIFIC DRILLING**
Antonio	Lage	**PETROBRAS**
Larry	Schmermund	**SMITH MASON & COMPANY, LLC**
Barry	Cooper	**WELL CONTROL SCHOOL**
Kevin	Braggs	**XCEL SAFETY TRAINING SOLUTIONS**