



MAINTENANCE COMMITTEE MEETING MINUTES

13 April 2016

Location: IADC - Crown Center 1 & 2 Conference Rooms

Call to Order / Agenda:

The committee was called to order and the attendees were welcomed by the IADC Maintenance Committee Chairman, Frank Breland (Diamond Offshore). The Chairman provided an overview of the proposed agenda for this meeting

A building security and safety briefing was given by Mr. John Pertgen (IADC).

Introductions:

Each attendee provided an introduction of them self and their company affiliation.

IADC Antitrust Policy and Guidelines and Committee Mission Statement:

Mr. Pertgen provided a review of the IADC Antitrust Policy and Guidelines and stated that the full policy is available on IADC's webpage. The Chairman read the committee Mission Statement for the group.

Regulatory Review / Update:

Holly Hopkins (API), via teleconference, provided a review of the highlights of the regulatory changes by the National Agencies and API Activities. A handout from API was provided to the attendees. A list of those highlights is included at the end of these minutes.

John Pertgen (IADC) provided the Committee with information about the two IADC-published semi-annual regulatory reports on the revised IADC website:

1. International Standards Activities affecting the Offshore Oil and Gas Industries --
This report provides a handy reference to the standards development activities of various organizations (e.g., the International Maritime Organization, International Labor Organization, the International Organization for Standardization, and various international trade associations).
2. Federal Regulatory Actions Impacting the Offshore Industry –
This report provides a reference summary that reflects the regulatory actions, announced in the Federal Register by U.S. governmental agencies, which may affect operations in the oil and gas industries.

(Note: Both reports are available at: <http://www.iadc.org/offshore-operating-division/reports/>)

Main Presentation:

An Alternative to Welding Hydraulic Tubing and Pipe- DNV Approved Mechanical Connections for Onshore, Offshore, and Subsea Drilling Environments given by Ted Amling (Parker Hannifin Corporation)

The main topics covered in this presentation were:

- Overview of Phastite for Pipe
- Connection Design
- Time savings
- Advantages
- Connection Tools
- Qualification & Testing
- FE Modeling
- Case Study: Offshore Project – DMAS Upgrade
- Case Study: BOP Stack and HPU piping upgrade
- Case Study: Cost Savings

Please contact Karl Hay [khay@parker.com] if you have any questions regarding the presentation or wish to obtain a copy of it.

Asset Integrity Conference 2016

Mr. Pertgen reviewed the Asset Integrity Conference timeline that is planned for 2016; including soliciting anyone on the committee interested in being a monitor at various sessions of the conference.

Class Society Issues

DNV GL: *BOP Retrieval Decision Tool* by Felipe Sodre and Crystal James

The main topics covered in this presentation were:

- Informed risk and reliability Decision Support
- The BOP Scenario
- BOP-RDT Concept / Methodology
- Customizable BOP-RDT Management Rules
- Some results (Example for a Real BOP)
- Overview of BOOP-RDT
- Final comments

If you have any questions please contact Crystal James [Crystal.James@dnvgl.com] or Felipe Sodre [Felipe.Sodre@dnvgl.com] regarding their respective presentation or if wish to obtain a copy of it from them.

ABS: *Upcoming changes to the IMO MODU Code* by Dave Forsyth

The main topics covered in this presentation were:

- Proposed changes to MODU Code at IMO SSE Sub-Committee meeting
- Applicability of the changes
- Way forward

Please contact Dave Forsyth (ABS) [dforsyth@eagle.org] if you have any questions regarding their respective presentation or wish to obtain a copy of it from them.

Lunch & Learn Presentation: *Conditioned Based Monitoring* by Jim Cue (Caterpillar)

Mr. Cue's presentation included the following:

- What is Conditioned Based Monitoring/Maintenance
- How does CBM benefit the drillers
- What makes a CBM System good

AFTERNOON SESSION*****

Caterpillar

Robert Froebel (CAT) provided an update for all the issues that CAT is working on for our industry.

Please contact the CAT representative via email address if you want a copy of his presentation, have any questions or want to get clarification on any issues regarding your CAT equipment.

[\[froebel_robert@cat.com\]](mailto:froebel_robert@cat.com)

National Oilwell Varco

Ian McWilliam provided an update for all the issues that NOV is working on for our industry. He discussed the following topics:

- PIBs (Product Improvement Bulletin) a very lengthy discussion ensued on this topic. (esp: the term "safety" used in PIBs)
- Static Discharges from HPU's
- Asset Reliability
- Wire Rope Inspecting

Please contact the NOV representative via email address if you want a copy of his presentation, have any questions or want to get clarification on any issues regarding your equipment. [\[Ian.McWilliam@nov.com\]](mailto:Ian.McWilliam@nov.com)

Future Topics:

NOV topics for future discussion at next session:

- Tracker – all information not always entered
- Fingerboard – sticking/failing/falling latches update
- Drag Chains- issues (Norwegian built equipment)
- TX1250- Maintenance period issues

Reactivation / Unstacking rigs

Ideas for practical uses of Conditioned Based Monitoring

Cybersecurity

Info Sharing: None

Adjourned: 1445hrs

ACTION ITEMS:

1. NOV to provide information/updates on issues listed in Future Topics listed above at next session.

Lunch sponsors for 2016 committee meetings held at IADC will be:

13 January	-	Diamond
13 April	-	ROWAN
13 July	-	Atlas Copco
12 October	-	Precision Drilling

API REGULATORY UPDATE

API ACTIVITIES

API S53 Blowout Prevention Equipment Systems for Drilling Operations

The API 53 task group met on June 9, 2014, to begin work on an addendum to the 4th edition and possible work on the 5th edition of the standard. The following will be sources of proposed changes/additions:

- Compliance assessment spreadsheet;
- responses with interpretations of API 53;
- comments from previous ballots of API 53;
- comments from other task groups, e.g. 16C, 16A, 16D;
- recommendations from industry (operators, drilling contractors, manufacturers, service companies, etc.)
- review informative statements in the document for applicability in the 5th edition

The last meeting has held March 30, 2016.

API RP 75 Recommended Practice for Development of a Safety and Environmental Management Program for Offshore Operations and Facilities

- Sandi Fury, Chevron, and Charlie Duhon, Arena are the co-chairs of the RP 75 revision workgroup. The last meeting was April 12, 2016.

API Specification 16AR Drill Through Equipment Repair and Remanufacturing

- A task group has been formed to create a new document on the repair and remanufacture of BOPs, similar to Annex B of 16A. Annex B is being removed from 16A. (Contact Jan van Wijk jan.vanwijk@shell.com or Chris Johnson chris.johnson@nov.com)

API Spec Q2 Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries (1st Edition)

- API-APIQR has 54 active, certified facilities for API Spec Q2 in 12 different countries (22 out of the 54 certificates have been issued to E&P service companies in the US).
- We have 55 current applications. Most in the USA and China (10 each) but we have applications in 16 different countries.
- We are receiving more inquiries and interest from drilling contractors and we are working with our stakeholders to ensure our audit program is adapted, within the boundaries allowed by our accredited scheme, to meet their needs.
- The SC18, TG5 (the SC18 quality committee's task group on API Spec Q2) work groups working on editorial revisions to API Spec Q2 and development of the guidance document for the application the requirements of API Spec Q2 continue to work on these items. The output from the group is being used for API auditor training as well. It is expected that the work of TG5 will be

complete later in the summer of 2016. Based on the publication date of 2011; API Spec Q2 is due for revision but any changes will be limited to editorial changes to correct ambiguities and improve alignment with the language of API Spec Q1 (for more information on the work of SC18, TG5 contact the chair of the TG, Stacey Hagen of ExxonMobil at stacey.w.hagen@exxonmobil.com).

- With the publication of ISO 9001:2015 APIQR has established a transition plan for auditing ISO 9001 certified companies to the requirements of ISO 9001:2015. APIQR is working on a gap analysis between Q2 and ISO 9001. The transition plan includes auditing to the requirements of ISO 9001:2015 starting in September 2016. This will have an impact on those service organizations that are currently applying for and certified to API Spec Q2 and ISO 9001; currently 47 out of the 54 active clients are certified to both Q2 and ISO 9001.
- There has been discussions within the COS membership relating to substituting Q2 certification as an option to SEMS certification. However, the standards and basis of the certifications are significantly different. API Spec Q2 is a quality standard with the expected outcome being delivering conforming services to customers based on customer and industry requirements; an RP75 SEMS expected outcome relates to minimizing safety risks and environmental impacts based on processes and the regulatory environment. A service company may integrate the systems but the requirements and basis for the standards are quite different.
- For information about the Q2 certification program, program requirements, auditing requirements, etc. (Contact Aaron Duke at dukea@api.org 1-202-682-8524). For more information on API-U Q2 training courses please visit the API-U training calendar on the API website at <http://www.api.org/events-and-training/api-u-training/api-u-calendar>.

New API document on Life Cycle Management

- A task group has been formed to create a life-cycle management system document for use in conjunction with products and/or standards used in the oil and gas industry. The document should provide the means of identifying the continued compliance of a product to its original and/or current manufacturing and design requirements and the ability to demonstrate product compliance to original and/or current product standards and industry/product-specific technical and regulatory requirements throughout the product lifecycle. The document is under development. (Contact Mike Briggs Michael.Briggs@c-a-m.com)

USCG ACTIVITIES

USCG Industry Day

- On March 29, 2016, the USCG hosted an industry day at the OMNI Riverfront Hotel in New Orleans to coincide with the NOSAC meeting. The next Industry Day will be held in the fall in Houston, also to coincide with the NOSAC meeting.

Well Intervention (WI) Vessel Policy

- BSEE and USCG have engaged industry through OOC to gain a better understanding of Well intervention operations. OOC has offered a path forward to develop a common understanding and ultimately an industry best practice framework. The OOC Well Intervention Risk Framework Kick-Off meeting was held December 17, 2015 and that work continues. NOSAC has also established a Subcommittee to address the task statement on this topic for the USCG.

National Offshore Safety Advisory Committee meeting (NOSAC)

- The last meeting was held March 30 in New Orleans. The Cybersecurity Subcommittee issued a final report. The Subcommittee formed to respond to the USCG task statement on WI gave an interim report and the MODU Towing Subcommittee gave a final report. The next meeting will be in the fall in Houston.

USCG Pending Rules

- Final Rule - Revision of Crane Regulation Standards for MODUs, OSVs, and Floating (OCS) Facilities
- NPRM USCG Safety Management Systems
- Final Rule - Marine Casualty Reporting on the OCS
- Final Rule - Harmonization of Standards for Fire Protection, Detection, and Extinguishing Equipment
- NPRM on Training of Personnel and Manning on MOUs and Offshore Supply Vessels Engaged in US OCS Activities
- Final Interim Rule regarding Offshore Supply Vessels of at Least 6,000 GT ITC
- Final Rule - MODUs and Other Vessels Conducting Outer Continental Shelf Activities With Dynamic Positioning Systems
- Final Rule - Commercial Diving

A final national policy on lifeboats and survival craft is expected.

BSEE ACTIVITIES

BSEE Offshore Well Control Rule

- API, IADC, OOC, NOIA, IPAA, PESA and USOGA filed technical comments on the BSEE Proposed Well Control Rule on July 16, 2015. Meetings with DOI, BSEE and the Industry were held July 13, September 14, and December 7, 2015. Industry has pushed for engagement with DOI and BSEE as interest on Capitol Hill progresses and possible solutions are discussed. A final rule is expected by April 20, 2016.

BSEE Pending Rulemaking

- BSEE Final Rule on Production Safety Systems - Subpart H
- BSEE Proposed Rule on Helideck and Aviation Fuel Safety for Fixed Offshore Facilities
- BOEM/BSEE Final Rule on Arctic specific operations
- BSEE Final Rule on Well Control
- BSEE Final Rule on Offshore Pedestal-mounted cranes

OTHER ACTIVITIES

National Academies (NA) Transportation Research Board (TRB) Committee on Real-Time Monitoring of Offshore Oil and Gas Operations

- The TRB of the NA formed an ad hoc committee to conduct a study to advise BSEE on the use of real-time monitoring systems (RTM) by industry and government to reduce the safety and environmental risks of offshore oil and gas operations. The Committee has held meetings and workshops in December 2014, April and August 2015, a final report is expected this year. More information can be found here:
<http://www8.nationalacademies.org/cp/projectview.aspx?key=49661>

Attendance:

Name		Company Name
Matt	Sanders	AMERICAN BLOCK MFG.
Jack	Franklin	AMERICAN BLOCK MFG.
Robert	Conachey	AMERICAN BUREAU OF SHIPPING
Dave	Forsyth	AMERICAN BUREAU OF SHIPPING

Holly	Hopkins	AMERICAN PETROLEUM INSTITUTE
Don	Tiskevics	ATLAS COPCO TOOLS & ASSEMBLY, LLC
Jim	Ness	BP
Rae	Burrows	BURROWS R&H MACHINE
Jim	Cue	CATERPILLAR OIL & GAS
Robert	Froebel	CATERPILLAR OIL & GAS
Frank	Breland	DIAMOND OFFSHORE DRILLING, INC.
Crystal	James	DNV GL
Felipe	Sodre	DNV GL
Ryan	Berger	ENSCO PLC
Douglas	Cooper	ENSCO PLC
Charles	Nielsen	ENSCO PLC
John	Pertgen	IADC
Covey	Hall	LLOYD'S REGISTER ENERGY - DRILLING
Ian	McWilliam	NATIONAL OILWELL VARCO
Denis	Adams	OFFSHORE COMMISSIONING SOLUTIONS (OCS GROUP)
Tim	Mournian	OFFSHORE COMMISSIONING SOLUTIONS (OCS GROUP)
Sara	Castro	PACIFIC DRILLING
Josh	Westling	PACIFIC DRILLING
Richard	Sporn	PARAGON OFFSHORE
Mike	Anatra	PARKER DRILLING
Ted	Amling	PARKER HANNIFIN CORPORATION
Karl	Hay	PARKER HANNIFIN CORPORATION
Peter	Pilon	PARKER HANNIFIN CORPORATION
Victor	Rasanow	PARKER HANNIFIN CORPORATION
Robert	Urbanowski	PRECISION DRILLING COMPANY
Jamie	Vargas	PRECISION DRILLING COMPANY
Jerael	Richardson	R&H SUPPLY
Jeff	Townlin	ROWAN COMPANIES
Al	Browning	ROWAN COMPANIES
Kevin	Warren	SEADRILL AMERICAS INC.

Bobby	Warren	SEADRILL AMERICAS INC.
Larry	Lehman	SENDERO DRILLING
Dennis	Cobb	SENDERO DRILLING
Marc	Morin	TRANSOCEAN
David	Watson	TRANSOCEAN
Robert	Niles	TRANSOCEAN
Michael	Yoakum	YOAKUM TECHNICAL CONSULTING LLC