MAINTENANCE COMMITTEE
MEETING MINUTES

14 October 2015

Location: IADC - Crown Center 1 & 2 Conference Rooms

Call to Order:

The committee was called to order and the attendees were welcomed by the IADC Maintenance Committee Chairman, Frank Breland (Diamond Offshore).

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

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.

Introductions / Agenda:

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

The Chairman provided an overview of the proposed agenda for this meeting.

Stephanie Carling & Lori Gagula (IADC) provided an overview of the 2015 Asset Integrity Conference results and the preparations underway for the 2016 Conference

Regulatory Review / Update:

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/)

A review of the highlights of the regulatory changes by the National Agencies and API Activities was presented by Mr. Pertgen and included a handout from API (provided by Holly Hopkins). A copy is attached at the end of these minutes.

Main Presentation: Class Society Perspectives from ABS & DNV:
ABS:
- Recent Updates
  - Guide for Lay-up and Reactivation of MODUs (to be released in NOV 2015) has three levels: Laid-up; Laid-up-Hot Stacked; Laid-up-Cold Stacked without manning
  - Jacking Gear Inspection Requirements
    - Types of Jacking Gear designs
    - General Inspection requirements
    - Frequency of Inspections
    - Design Specific Requirements
      - Open Designs
      - Closed Designs

Mr. Forsyth also provided the following reference material:

The Unified Requirement for inspection of Mobile Offshore Drilling Units is Z-15, this can be downloaded from this link.

The Unified Interpretation for The IMO MODU Code can be found at this link, UI MODU, can be downloaded from this link.

The Unified Interpretation for Permanent means of access is not yet published online but should be soon.

DNVGL:
- Layup of Mobile Offshore Units
  - Hot lay-up
  - Cold lay-up
- Machinery Surveys
  - Which machinery components are Class relevant
  - Survey schemes
  - Independent class survey
  - Part of another survey
  - Survey Arrangements
  - Machinery Renewal
  - Machinery Continuous
  - Machinery planned maintenance system (MPMS)
  - Machinery Condition Monitoring (MCM)

Please contact Dave Forsyth (ABS) [jforsyth@eagle.org] or David McKay (DNVGL) [David.McKay@dnvgl.com] if you have any questions regarding the presentation or wish to obtain a copy of the presentation.

Lunch & Learn Presentation: Ballast Water Management Regulation update by N.E.I. Treatment Systems (Jeff Barber)

Mr. Barber provided an update as to the current status of the Ballast Water Convention at IMO. He also reviewed the current requirements that are being used by the US Coast Guard. He reviewed the types of
systems that are available and how they achieved the goal established by the USCG. He pointed out the positives and negatives of each type of system available.

Please contact Jeff Barber [jbarber@nei-marine.com] if you have any questions regarding this presentation or merely wish to obtain a copy of the presentation.

AFTERNOON SESSION

Caterpillar

Brad Devorak (CAT) provided an update for all the issues that CAT is working on for our industry, including all outstanding service letters with unexpired dates.

Please contact Brad via email address if want a copy of his presentation, have any questions or want to get clarification on any issues regarding your CAT equipment. [devorak_brad_c@cat.com]

National Oilwell Varco

Mr. Ian McWilliam reviewed the current status of the high level issues and challenges that are of interest for our industry. He also covered an update for PIBs (product bulletins).

Mr. McWilliam deferred the riser gantry crane SME presentation until next meeting (i.e., synchronization and overheating issues)

Product Line Manager on NOV drawworks discussed issues with drawworks and solicited areas of concern from our members.

Please contact him via email if you have any questions or want to request a copy of his presentation. (Ian.McWilliam@nov.com)

Chairman nominations for 2016: Mr. Breland was re-elected to Chairman for 2016 and Mr. Anatara was re-elected as Vice Chairman.

Future Topics:

Phased array and using it on rigs vice UT. (Recommended ROWAN provide presentation at next meeting)

Rig stacking lessons learned (Lunch & Learn presentation for January meeting by Diamond Offshore)

Info Sharing:

Fluid sampling measures were discussed amongst the various members.

Adjourned: 1450 hrs

ACTION ITEMS:

NOV will have their gantry crane SME to attend next meeting to address issues of concern to our members.

NOV to have someone to discuss spares issues with Supply Chain committee representatives at next meeting.
Maintenance Committee Chairman to invite Supply Chain committee members to our next meeting to
discuss issues with NOV reps

**Lunch sponsors** for 2016 committee meetings will be:

<table>
<thead>
<tr>
<th>Date</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 January 2015</td>
<td>Diamond</td>
</tr>
<tr>
<td>13 April</td>
<td>ROWAN</td>
</tr>
<tr>
<td>13 July</td>
<td>TBD</td>
</tr>
<tr>
<td>12 October</td>
<td>Precision Drilling</td>
</tr>
</tbody>
</table>

**API ACTIVITIES**

**API Bulletin 92L Drilling Ahead Safely with Lost Circulation in the Gulf of Mexico**

Published in August 2015, this bulletin identifies items that should be considered to safely address lost
circulation challenges when the equivalent circulating density (ECD) exceeds the fracture gradient. It
addresses drilling margins and drilling ahead with mud losses, which are not addressed in API 65-2. It
provides guidance when lost circulation is experienced with either surface or subsea stack operations
(excluding diverter operations). These practices may apply to other OCS environments such as offshore
California and Florida. Industry suggested incorporation by reference of API 92L into the BSEE Final
Well Control Rule.

**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 August 18, 2015, next meeting is October 14, 2015.

**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 October 13, 2015.

**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)**

- The 1st edition of Spec Q2 was published December 15, 2011. This is a specification for Quality
  Management System Requirements for Service Supply Organizations, to identify the expectations
  for execution of upstream services including well construction, intervention, production and
  abandonment. (Contact Stacey Hagen stacey.w.hagen@exxonmobil.com)
- API-APIQR has 42 active, certified facilities for API Spec Q2. Halliburton has most of these as they have their GOM and SE Asian operations certified. We just added our first drilling contractor, Akita Drilling Ltd in Nisku, AB, Canada.
- We have 56 current applications. Most in the USA and South America has been increasing, but we have applications in 15 other countries.
- We continue to add and expand the base of competent auditors through training and auditor observation.
- API-U continues to offer Q2 training courses in a variety of locations worldwide. These can be found on the training calendar on the API website (http://www.api.org/events-and-training/api-u-training/api-u-calendar).
- SC18, TG5 (the SC18 quality committee’s task group on API Spec Q2) has been having regular meetings. They have established separate 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. The output from the group is being used for API auditor training as well.
- For information about the Q2 certification program, program requirements, auditing requirements, etc. (Contact Aaron Duke at dukea@api.org 1-202-682-8524)

**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**

**Draft Interim BSEE/USCG Regional Well Intervention (WI) Vessel Policy**
- July 2015 the USCG distributed a draft interim BSEE/USCG Joint Regional WI Vessel Policy for comment. After multiple meetings and conference calls with the USCG, API, OOC, IADC, and OMSA all provided comments. We await further action from the USCG.

**NVIC 01-15 Marine Casualty Reporting Procedures Guide with Associated Standard Interpretations**
- On July 21, 2015, the USCG published Navigation and Vessel Inspection Circular 01-15 (NVIC 01-15), titled Marine Casualty Reporting Procedures Guide with Associated Standard Interpretations. The purpose of NVIC 01-15 is to clarify terminology and phrases within the regulatory context, draw attention to helpful regulatory citations, and provide concise policy interpretations to assist vessel owners/operators with the casualty reporting process.

**USCG Industry Day**
- On August 26, 2015, the USCG hosted an industry day at USCG Sector Houston-Galveston

**National Offshore Safety Advisory Committee meeting (NOSAC)**
- The next meeting of the National Offshore Safety Advisory Committee (NOSAC) will be November 19 in Houston, Subcommittee meeting will be held on November 18. Subcommittees:
  1. Cyber Security on the US OCS (Co-chairs Kelly McClelland & Patrice Delatte pdelatte@tdw.com)
  2. Lifeboat Fall Testing (Co-chairs Phil Miller phil.miller@subsea7.com & Warren Weaver Warren.Weaver@deepwater.com)
  3. Towage of MODUs, MOUs and FOIs on the US OCS (Co-chairs Richard Simpson richard.simpson@icands.net & Marshall Perez mperez@enscoplc.com)

**USCG Pending Rulemaking**
• 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

**BSEE ACTIVITIES**

**2015 International Regulator's Forum (IRF) Conference**

- BSEE will host the IRF Offshore Safety Conference: "Risk Reduction: From Desktop to Deck Plate," on October 19-20, at the Liaison Capitol Hill in Washington, DC. Attendance is open to the public, registration for the event is now open. The IRF 2015 Offshore Safety Conference will focus on moving safety in the offshore petroleum industry from concepts discussed in the boardroom to effective implementation out in the field. It will provide a forum for industry, regulators, citizen stakeholders and practitioners to openly discuss best practices and industry trends.

**BSEE Offshore Well Control Rule**

- API, IADC, OOC, NOIA, IPAA, PESA and US O&G 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, and September 14, 2015. Industry continues to push for further engagement with DOI and BSEE as interest on Capitol Hill progresses and possible solutions are discussed.

**BSEE NPRM Cranes**


**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

**BSEE BAST Forum**

BSEE will hold a forum on November 12, 2015 to roll out their new process to determine BAST (best available and safest technology)

**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 early next year. More information can be found here: http://www8.nationalacademies.org/cp/projectview.aspx?key=49661

**Attendance Sheet**

<table>
<thead>
<tr>
<th>Name</th>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domenic Carlucci</td>
<td>ABS</td>
</tr>
<tr>
<td>Dave Forsyth</td>
<td>ABS</td>
</tr>
<tr>
<td>Blake Douglas</td>
<td>ALEXANDER/RYAN MARINE &amp; SAFETY</td>
</tr>
<tr>
<td>Stephen Fox</td>
<td>AMERICAN BLOCK</td>
</tr>
<tr>
<td>Matt Sanders</td>
<td>AMERICAN BLOCK</td>
</tr>
<tr>
<td>Tim Sanders</td>
<td>BESTOLIFE CORP</td>
</tr>
<tr>
<td>Surya Komaragiri</td>
<td>CAMERON</td>
</tr>
<tr>
<td>Greg Connors</td>
<td>CANADIAN GLOBAL</td>
</tr>
<tr>
<td>Bill Wallace</td>
<td>CANADIAN GLOBAL</td>
</tr>
<tr>
<td>Brad Devorak</td>
<td>CATERPILLAR</td>
</tr>
<tr>
<td>Jim Cue</td>
<td>CATERPILLAR</td>
</tr>
<tr>
<td>Frank Breland</td>
<td>DIAMOND</td>
</tr>
<tr>
<td>David McKay</td>
<td>DNV GL</td>
</tr>
<tr>
<td>Ryan Cox</td>
<td>DREW MARINE</td>
</tr>
<tr>
<td>John Pertgen</td>
<td>IADC</td>
</tr>
<tr>
<td>Covey Hall</td>
<td>LLOYD'S REGISTER</td>
</tr>
<tr>
<td>Jeff Barber</td>
<td>NEI TREATMENT SYSTEMS</td>
</tr>
<tr>
<td>Tim Hayes</td>
<td>NOBLE</td>
</tr>
<tr>
<td>Ian McWilliam</td>
<td>NOV</td>
</tr>
<tr>
<td>Shawn Firenza</td>
<td>NOV</td>
</tr>
<tr>
<td>Josh Westling</td>
<td>PACIFIC DRILLING</td>
</tr>
<tr>
<td>Mike Anatra</td>
<td>PARKER DRILLING</td>
</tr>
<tr>
<td>Jamie Vargas</td>
<td>PRECISION DRILLING</td>
</tr>
<tr>
<td>Robert Urbanowski</td>
<td>PRECISION DRILLING</td>
</tr>
<tr>
<td>Jim Craig</td>
<td>ROWAN</td>
</tr>
<tr>
<td>Thad Roberts</td>
<td>ROWAN</td>
</tr>
<tr>
<td>Eddy Garcia</td>
<td>ROWAN</td>
</tr>
<tr>
<td>Jeff Townlin</td>
<td>ROWAN</td>
</tr>
<tr>
<td>Al Browning</td>
<td>ROWAN</td>
</tr>
<tr>
<td>Name</td>
<td>First Name</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>Bobby</td>
<td>Warren</td>
</tr>
<tr>
<td>Joshua</td>
<td>Robnett</td>
</tr>
<tr>
<td>Anthony</td>
<td>Zeter</td>
</tr>
<tr>
<td>Mike</td>
<td>Pawlowski</td>
</tr>
<tr>
<td>Shawn</td>
<td>Ullrich</td>
</tr>
<tr>
<td>Allan</td>
<td>Villanueva</td>
</tr>
<tr>
<td>Andreas</td>
<td>Vester gren</td>
</tr>
<tr>
<td>Matts</td>
<td>Andersson</td>
</tr>
<tr>
<td>Marc</td>
<td>Marcantel</td>
</tr>
<tr>
<td>Rani</td>
<td>Puranik</td>
</tr>
</tbody>
</table>