MAINTENANCE COMMITTEE
MEETING MINUTES
10 July 2013

Location: IADC
Crown Center 1 & 2 Conference Rooms

Call to Order / Introductions:

The committee was welcomed by the 2013 IADC Maintenance Committee Chairman, Mr. Ken Gardner (Transocean). A building security and safety briefing was given by Mr. John Pertgen (IADC). The Chairman cordially thanked Rowan for sponsoring the lunch for this meeting. This was followed by a short introduction by each attendee at the meeting.

IADC Antitrust Policy and Guidelines and committee Mission Statement:

The Chairman reviewed the committee Mission Statement with the group. Thereafter, Mr. Pertgen provided an overview of the IADC Antitrust Policy and Guidelines.

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

Action Item Review

The Chairman asked for any maintenance committee member (or other member of their respective company) that has the expertise and the willingness to review the chapter of the revised Drilling Manual, regarding chains and sprockets. Those interested should notify Mr. Pertgen via email as soon as possible.

NOTE: Robert Urbanowski stated that he is a member of the rewrite group and he went on to provide an overview of how the changes to this revised manual are being made.

The Chairman also asked that any committee members or meeting attendees interested in being part of the 2014 Asset and Reliability Conference planning committee should notify Mr. Pertgen @ john.pertgen@iadc.org as soon as possible.

Regulatory Review:

American Petroleum Institute (API) - Below is a list of many of the topics covered by Ms. Holly Hopkins (API) in her regulatory update.

- API RP2D Operation and Maintenance of Offshore Cranes (1st ballot issued)
- API Offshore Safe Lifting Conference 16 & 17 July Houston
- API RP 75 Recommended Practice for Development of SEMS for Offshore Operations and Facilities (revision workgroup in progress)
- BSEE Safety Culture Policy Statement (9 characteristics)
- BSEE Annual Domestic & International Stds Workshop (2nd Workshop 5/6 November in New Orleans)
- NOSAC 5 task Statements
- USCG new 2692 reporting forms
- NTSB Safety Alert (Improve chances of survival when abandoning ship)
- USCG DP Incident Reporting policy
- USCG Termination of radio guard (FREQ 2182 kHz)
- Future Rulemaking
- API 16 AR (mentioned by Robert Urbanowski)
- API Q2 (mentioned by Robert Urbanowski)

NOTE: For a copy of Ms Hopkins presentation please contact Mr. Pertgen (john.pertgen@iadc.org)

International Association of Drilling Contractors- John Pertgen (IADC) provided the Committee with information about the two IADC-published semi-annual regulatory reports:

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/iadc-committees/iadc-offshore-operating-division/offshore-reporting/)

Additionally, Mr. Pertgen provided the below highlights from the recent Federal Summary on national issues (for a complete list or further information on any issue, please see the full report via the link above):

**USCG**
- **Electrical Equipment in Hazardous Locations.** On 24 June 2013 (78 FR 37760) the USCG issued an NPRM that would be applicable to foreign MODUs, floating facilities, and vessels engaged in OCS activities for the first time after the effective date of the regulations.
- **Revision of Crane Regulation Standards for MODUs, OSVs, and Floating OCS Facilities.** On 13 May 2013 (78 FR 27913) the Coast Guard issued an NPRM, which proposes to revise the regulations regarding design, certification, inspection, and testing of cranes.
- **USCG Report of Marine Casualty Forms 2692 & 2692B Revised Forms.** On 11 April 2013 the USCG notified the industry that they have revised the previously titled Form CG-2692 (Report of Marine Accident, Injury or Death) and Form CG-2692B (Report of Required Chemical Drug and Alcohol Testing Following a Serious Marine Incident).
- **Random Drug Testing Rate for Covered Crewmembers (USCG-2009-0973)** On 23 January 2013 (78 FR 4855) the Coast Guard issued a Notice that set the calendar year 2013 minimum drug testing rate at 25 percent of the covered crewmembers (reduced from the previous 50% rate).
- **Ballast Water Management Reporting and Recordkeeping.-** On 5 June 2013 (78 FR 33774) the USCG issued an NPRM that proposes to amend its existing BWM reporting and recordkeeping requirements. This proposed rulemaking is expected to update the current BW report to include only the data that is essential to understanding and analyzing BWM practices.

**BSEE**
- **Revisions to Safety and Environmental Management Systems Requirements (SEMS) -** On 5 April 2013 (78 FR 20423) the BSEE issued a Final Rule, which revised and added several new requirements to the regulations for SEMS. These pertain to the Stop Work Authority (SWA) and Ultimate Work Authority (UWA), requiring an Employee Participation Plan (EPP) and establishing guidelines for reporting unsafe working conditions. This rulemaking also establishes additional JSA requirements for activities in the operator’s SEMS. Lastly, it requires that the SEMS program must be audited by an accredited service provider.

**EPA**
- **Final National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Incidental to the Normal Operation of a Vessel.** On 12 April 2013 (78 FR 21938) the EPA issued a Notice of final permit issuance, which finalizes the NPDES Vessel General
Permit (VGP) for EPA Regions 1 thru 10, to authorize discharges incidental to normal vessel operation of non-military and non-recreational vessels greater than or equal to 79 Feet in length. This revised VGP imposes more prescriptive technology-based effluent limitations for their oil-to-sea interfaces; and numeric technology-based effluent limitations that are applicable to vessels with ballast water tanks.

**Main Presentation:** FMEA (Failure Mode & Effects Analysis) Overview by Mr. Bibek Das (ABS)

The presentation included:
- What is FMEA
- History of the its development
- What standards are used
- FMECA Steps
- Defining System of Interest
- Operating Modes
- Considerations in Failure Effects
- Criticality Ranking
- Human Interfaces
- Exercise
- RCM Study
- Maintenance Strategy and Application of FMEA
- Role of Maintenance Personnel

Many questions from the group and a lengthy discussion of issues ensued that was germane to the FMEA topic. Manufacturers in the room provided valuable input to these discussions.

NOTE: For a copy of this presentation please contact Mr. Das (abs) at bidas@eagle.org

Chairman: Perhaps we should ask..."Why do we not have a standard system criticality list for the industry for specific units (Drillships, semis, land rigs, etc.)?" He then suggested to the committee that they should think about putting together a group to formulate a template on this issue for our industry.

**Lunch & Learn:**

Ultrasonic Impact Technology- Providing Non-thermal stress relief and Improved Asset life by Buck Witt (Applied Ultrasonics)

The presentation included:
- Underlying problem of welding and machining on the metal
- Distortion and Cracking explored
- Stress relief via ultrasonic Impacting
- Case studies

NOTE: For a copy of this presentation please contact Mr. Buck Witt at bwitt@appliedultrasonics.com

**Afternoon Portion:**

Caterpillar Jim Cue (CAT) provided an update on current Caterpillar issues.

-Mr. Cue then introduced EMD representative Jason Balzer, who reviewed the EMD process for addressing issues on their units. After much discussion within the group, it was agreed that EMD and CATERPILLAR would collectively participate in the monthly CAT teleconferences to address issues related to their perspective engines. They further agreed that, if there enough interest from the group to deal with EMD issues separately, then EMD would branch off into their own teleconference meetings.
National Oilwell Varco (NOV) representative Mike Loucaides, said that his company was looking for drilling contractors to feedback data on their top three issues so that it can be analyzed and feedback can be provided back to the committee.

**ACTION ITEM (Cont'd)**
The committee members will identify regarding NOV equipment no later than 19 JULY for their operational hours and 26th July for equipment for offshore rigs; and 15 Aug for issues with land rigs. [Including the specific equipment involved], to Mr. Frank Breland via fbreland@dodi.com Thereafter, Mr. Breland will compile the list and inform the NOV representative with copy to the Chairman

-A briefing on current Work Force Development Committee projects was given by Committee Chairman (Bob Burnett) assisted by Brooke Comeaux (IADC)

1. HUET Water Survival standardized training curriculum (minimum standard for MODUs)
2. KSA Knowledge/Skills/Abilities for anyone working on a drilling rig.
3. Competency Assurance Group (standards were put together to accredit programs that each company has)
4. Crane Operator curriculum

- A question was proposed to Mr. Burnett: “Should the Work Force Development Committee look to developing Maintenance Strategy Training?”

**Topic for future meetings**-
None at this time were presented.

**Open Forum**

One member asked if we could get other vendor companies represented at our meetings to share their information like we are doing with CAT & NOV. That member went on to say that we need to have them come to our meetings to understand how best to communicate with them to ensure a positive and effective response. It was agreed by the group that members provide and invitation to their vendors to attend our committee meetings to share their particular company information.

**Adjourned: 1430hrs**

**ACTION ITEMS**

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**Meeting lunch sponsors for 2013 committee meetings held at IADC are:**

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<th>Date</th>
<th>Sponsor</th>
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<td>09 January</td>
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## Attendance:

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<tr>
<td>Jon</td>
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<td>Jim</td>
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<td>Bibek</td>
<td>Das, American Bureau of Shipping (ABS)</td>
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<td>Holly</td>
<td>Hopkins, American Petroleum Institute</td>
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<td>Buck</td>
<td>Witt, Applied Ultrasonics (Speaker)</td>
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<td>Jason</td>
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