



Macaé, August 04th 2015

**MINUTES OF IADC-BRAZIL OPERATIONAL TECHNICAL COMMITTEE MEETING
HELD ON AUGUST 04th 2015 10:00 a.m. TO 1:00 p.m. AT TRANSOCEAN'S OFFICE IN
MACAE AND VIDEO CONFERENCE WITH SEADRILL'S OFFICE IN RIO DE JANEIRO.**

Present at this meeting were the following:

- Bruno Manfredini - Transocean (Macaé)
- Eugênio Campos – OOG (Macaé)
- Geovanny Soares – GE (Macaé)
- Ricardo Neves – GE (Macaé)
- Barrie Lloyd-Jones–SSE do Brasil(Macaé)
- Thaísa Aleixo – IADC-BRAZIL (Macaé)
- John Guy – JSH Drilling Tools(Macaé)
- Mauricio Aguiar - Seadrill (Rio)
- Leandro Brandão – OOG (Macaé)

The agenda for this meeting was displayed on the screen. The focus was to review the Operational Technical Committee Goals set for 2015. The topics of discussion were as follows:

- Review of the actions of the last meeting minutes
- Review Goals set for 2015
 1. Managed Pressure Drilling
 2. Standard Equipment List for ANP
 3. Well Control Equipment
- Discuss Technical Presentations for the upcoming IADC meetings
- Corporate Committees – Status
- Lessons learned – Forum to share experiences in between the companies' members
- Schedule the Committee's next meeting
- Open Forum
- Close out

The following items were agreed upon

- Petrobras will close up and distribute the MPD's best procedures by the end of August. However, suggestions will be accepted in the case of having a clear topic on this document that could cause any safety risk. Besides that, this will be the final document of best procedures to be followed.
- The companies drilling using MPD need more information about procedures for inspection as well as procedures for disconnection in case of an emergency with an empty riser. Therefore, it was agreed by the committee to bring up the discussion about risers and make a link with the MPD system. This Discussion could be include during the IADC's GM.



- It was agreed to invite Petrobras to present their MPD's best practice at the GM.
- Geovanny is to contact GRC from GE to book a meeting about risers in Rio de Janeiro for the same date of the GM as most of the committee members will already be in Rio for the GM meeting.
- Bruno is to contact the IADC Corporate to request, again, their Standard Equipment List for ANP. Also, he is to contact Transocean's department for approval to use Transocean's equipment list as it is an IADC list and is already updated with new equipment.
- Bruno is to invite Cameron, NOV and GE for a meeting to present about their process of quality assessment and then this topic could be presented in a future GM.
- Thaísa is to make a simple ppt document explaining what should be included and what shouldn't be include for the GM's presentation. This document will be sent to the companies willing to present at a GM as a template of how they should structure their presentation.
- OOG presented lessons learned from their company, the topics of presentation were as following:
 1. Coriolis Repositioning (problems with the sensor in a few scenarios) – Solutions were presented.
 2. Riser Analysis (OOG has started working on different scenarios to determine the effects of the disconnection) – It needs more discussion in between DCs and Operators to establish rules.
 3. Target flange on MPD/MCD lines – It is necessary to evaluate the wear in the lines.
- For the next meeting a member of each company is still to bring 3 of the major problems they had this year for further discussion. The action should include:
 1. What happened;
 2. Interim solution;
 3. Permanent solution.
- Bruno is to invite people from the following companies to participate on the Tech/Ops committee's meetings:
 1. Ocean Rig
 2. Oilfield
 3. Nobel
 4. Pacific drilling
 5. Paragon
 6. Etesco
- Geovanny is to invite people from the following companies to participate on the Tech/Ops committee's meetings:
 1. Brasdril
 2. Ensco
 3. Queiroz Galvão



The following items were discussed yet they remain open

- It was suggested to postpone August's general meeting in Rio to the 10th of September as most of the members will be involved with various international meetings (eg. MPD, DGD and Well Control) and would not be able to attend the GM on its currently date. This topic will be awaiting Gioppo's approval and the confirmation of availability of the venue for the meeting at Petrobras University for the new date.
- It is necessary to further discuss WSOG vs. IMCA. The definition of the colors used to indicate emergency at the rig is still confusing.
- The suggestions for the next Technical presentations for the General meeting in September are the following:
 1. BOP uptime strategy - Lloyd's Register – Bruno is to check if they are able to present in September instead of October.
 2. MPD's lessons learned & best practices – Petrobras – Leandro and Eugênio are to check Petrobras's availability.
 3. New technology – Motorola – Check with Barrie if Motorola has sent a new presentation.

Next Meeting

The next meeting for the Operational/Technical committee was agreed to be held on September 08th at 10:00am. The meeting will be at Transocean's office with video link to Seadrill's Rio office.