

International Association of Drilling Contractors



IADC ART BOP Controls Subcommittee
21 April 2016
9:00 AM – 10:30 AM (CST)
10370 Richmond Ave. Suite 760, Houston, TX 77042
WebEx: 1-866-417-1439, Code 9176075788

Minutes

1. BOP Controls Subcommittee (hereafter referred to as BCS) held its second meeting of 2016. General housekeeping was provided as follows;
 - a. Safety moment
 - b. IADC's Antitrust Policy and Guidelines
 - c. Attendee introductions
2. A review was given of the minutes from the BCS meeting held on 18 February 2016. Included in this review were the takeaway initiatives from the 2015 ART Conference.
3. Based on these ART Conference initiatives the BCS was tasked with selecting at least two (2) topics for work packages to pursue. The following were discussed.
 - a. Flat time reduction
 - i. Outline opportunities for flat time reduction in running/testing BOP.
 1. Consensus; Flat time applies more to drilling rig equipment.
 - ii. Selected work package;
 1. None
 - b. Cybersecurity
 - i. Establish recommendations for maintaining and testing security barriers.
 1. Consensus; Review and align with the recently published eBook, "IADC Guidelines for Assessing and Managing Cybersecurity Risks to Drilling Assets".
 - ii. Selected work package;
 1. None
 - c. Reliability
 - i. Establish recommended practice for subsea valve qualification to reflect real world operating conditions.
 1. Requires real world data set, hard to reproduce test environment, involves different valve types and functionality, could need hydraulic simulations, possibly out of reach for BCS capabilities.
 2. Consensus; Request updates from BOP Reliability JIP for future alignment.
 - ii. Create a guideline for a recommended level of reliability analysis.
 1. Can use widely accepted methods such as Fault Tree Analysis, FMEA is required for all new controls, analysis helps Drilling

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- Contractor make decisions and plans, may point to critical areas to install sensor feedback, requires bringing together OEM + Drilling Contractor + Subject Matter Expert.
 - 2. Consensus; Guidance for reliability analysis within drilling is a gap and there are industry references available to leverage.
 - iii. Selected work package;
 - 1. Reliability analysis
 - d. Common language for drilling machine communication
 - i. Mimic the automotive onboard diagnostics for BOP reporting.
 - 1. Consensus; Idea tabled for future consideration.
 - ii. Establish communication interface between BOP controls and Managed Pressure Drilling.
 - 1. MPD use has increased with potential interface requirements to BOP controls.
 - 2. Consensus; Request updates from IADC UBO/MPD Committee for future alignment.
 - iii. Create a guideline for common human machine interface requirements.
 - 1. Outline critical information into groups for quick access and less noise, illustrate how to navigate during an event, address human factors, apply common formatting across Subsea/Surface/Land, establish baseline for IADC Well Sharp training.
 - 2. Consensus; Creating a minimum criteria for HMI development may help with personnel training and safe operation.
 - iv. Selected work package;
 - 1. Basic HMI requirements
- 4. Review and as needed revise the BCS mission statement, objectives, and goals for 2016. The mission should reflect the ability of the BCS, with objectives and goals to be coordinated among the selected work packages.
 - a. Mission Statement (revised as follows);
 - i. Provide information and guidance to improve safety, reliability and performance of BOP Controls as installed on drilling facilities.
 - b. Objectives (revised as follows);
 - i. Present recommendations for uniform BOP control systems.
 - ii. Detail a focused approach towards safety and mitigating the risk of environmental impact.
 - iii. Implement advanced rig technology where it improves the drilling industry.
 - c. Goals
 - i. Create a guideline for a recommended level of reliability analysis in BOP Controls using widely accepted methods, such as fault tree analysis.
 - ii. Create a guideline for developing the human machine interface in BOP Controls using basic formatting principles to aid standard user training.

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- iii. Host periodic technology forums or workshops to promote BOP Controls and generate interest in subcommittee participation.
5. Recommend industry speakers for a general controls technology forum. Propose a workshop date, time, and venue.
 - a. Consult with Steve Kropla for help with BOP Reliability JIP.
 - b. Consult with Trenton Martin for help with Drilling Controls Subcommittee.
 - c. Consult with Siv Houmb for help with Cybersecurity Subcommittee.
 - d. Consult with Harris Reynolds for help with Future Technology Subcommittee.
 - e. Consult with Christopher Goetz for help with Alarms work group.
 - f. Consult with Leesa Teel for help with IADC UBO / MPD Committee.
 - g. Consult with Maynard Chance for help with API 16D Committee.
 - h. Consult with Thalia Kruger for help with American Bureau of Shipping.
 - i. Consult with Robin Macmillan for help with Drilling Systems Automation Technical Section (DSATS) and external industries.
 - j. Consult with Mike Killalea for help with organizing forum.
6. Briefly discussed other topics of interest.
7. Scheduled next meeting for 16 June 2016.
8. Adjourned.