

International Association of Drilling Contractors



IADC ART BOP Controls Subcommittee
18 February 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 first meeting of 2016. General housekeeping was provided as follows;
 - a. Safety moment
 - b. IADC's Antitrust Policy and Guidelines
2. The following background information was given.
 - a. Quick history of the BCS.
 - b. Overview of the other ART subcommittees and their general focus.
 - c. Original BCS mission statement, objectives and goals.
 - d. Introduce takeaway initiatives from the 2015 ART Conference.
3. General discussion of 2015 ART Conference initiatives. Where/if they fit within the BCS?
 - a. Flat time (NPT) reduction
 - i. A point was made that Flat Time pertained more to rig equipment (i.e. time between drill bit tripped out of the hole and when drilling is resumed).
 - ii. A counterproposal suggested the BSC could be considered in Flat Time reduction as part of pulling and running a subsea BOP stack. That sequence of events could be outlined to seek operational gains. Example;
 1. Tests at surface
 2. Pre-charging accumulators
 3. Nipple up/down BOP stack
 4. Tests at subsea
 5. Decision matrix to pull BOP stack
 - iii. Outlining these events may assist Drilling Contractors in developing a definition for their NPT tasks and associated KPI to align with Operator targets. Suggestions could be presented for better performance. Example; BOP pressure test time improvement with a test stump.
 - b. Cybersecurity
 - i. A point was made that BOP Controls are an island from interfacing with other control systems and only OEM personnel can access.
 - ii. A counterargument implied that barrier is increasingly disappearing.
 - iii. It was pointed out that governing bodies are starting to comment more (e.g. USCG, API 53), and IADC was already preparing guidance on CS.

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Consensus was arrived that the BCS should seek alignment with these ongoing efforts.

- c. Reliability
 - i. A recommendation was given to split reliability into multiple categories; 1) Software, 2) Electrical, 3) Hydraulics. Of which to address component (e.g. valve), subassembly (e.g. POD), and system (e.g. interconnection).
 - ii. It was pointed out that API 16D 3rd edition would include more governance of software.
 - iii. An argument was posed about changing the frequency of wellbore testing, as to how relevant is the test considering the impact on equipment.
 - iv. A point was made that present component qualification criteria, specifically subsea valves, did not reflect the real conditions of operation. For example a valve qualified to 2000 cycles may never see anywhere close to this level of operation. A suggestion was offered that a new guideline could reflect other critical factors to subsea valve qualification.
 - d. Developing a common language for drilling machine communication
 - i. A point was made that BOP Controls are typically single sourced and do not interface with other drilling machines.
 - ii. A counterproposal suggested that Managed Pressure Drilling (MPD) is increasing in use, which will have implications on BOP Controls. The idea was introduced for a 'plug-in-play' MPD interface. The point was made that IADC has a subcommittee for MPD and that the BCS should seek alignment with their ongoing efforts.
 - iii. The observation was made that BOP Controls does not have a common format for human machine interface (HMI). This being touchscreen layout, functionality and alarm. It was suggested that a baseline for HMI could be incorporated in the IADC Well Sharp program.
 - iv. An example of common language was provided in relation to automotive onboard diagnostics. This being a common reporting protocol instead of a common control language could lend itself more readily for adoption. It may also be well suited for the increasing trend of condition based maintenance and real time monitoring.
4. Propose possible alignment of the BCS activities with other groups.
- a. BOP Reliability JIP
 - i. IADC has taken the reigns of this group. It was recommended that the BSC request periodic updates as information becomes available.
 - b. IADC Committees
 - i. ART Drilling Controls workgroups
 - 1. Cybersecurity; It was recommended that the BCS align with the guidance proposed by this group.

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2. Alarms & Acknowledgement; It was recommended that the BCS see if BOP Controls were being addressed by this group, possibly in line with developing a HMI guideline.
 - ii. Managed Pressure Drilling; It was recommended that the BCS see if BOP Controls as a common language were being addressed by this group.
5. Suggest topics to address in next subcommittee meeting scheduled for 21 April.
 - a. Select at least two work packages based on the 2015 ART Conference initiatives. The goal would be to create industry guidance as an opportunity for self-regulation and promotion of advanced rig technology.
 - b. 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.
 - c. Invite industry speakers to promote a controls workshop for learning. Possibly to include the following;
 - i. BOP Reliability JIP
 - ii. IADC ART Cybersecurity & Alarm work groups
 - iii. IADC Managed Pressure Drilling
 - iv. API 16D standard committee
 - v. ABS, DNV, and/or Lloyd's Register
 - vi. DSATS
 - vii. External industries/topics;
 1. Big data
 2. Aerospace
 3. Performance based programs
6. Meeting adjourned.