

December 7-9, 2021 General MPD Committee Meeting Minutes.

Times are in CST

Meeting minutes main meeting on December 7th: (on average 35 people attending)

- **08:00 – 08:05: Initiate Event / IT Reminders / Meeting Format**
- **08:05 – 08:10: Safety Moment – Keeping people healthy – (Roger)**
 - We decided to do the meeting virtual only to minimize transmission risk ahead of the holiday season and in line with other committee meetings.
 - Looking back at 2021, in Shell the attention to good mental health has been higher than ever. We had a 'Stand Down' for mental health day with multiple external presenters. Guidance was provided to increase available resources to manage mental health; both in person and online.
 - The holiday season is upon us. A good period to switch off from work, but it is replaced by different stress factors. Please look after yourself and the family.
- **08:10 – 08:15: IADC Anti-Trust Guidelines IADC Representative (Lori)**
 - Review the IACD Anti Trust Guidelines
 - Review 2022 SPE/IADC Managed Pressure Drilling & Underbalanced Operations Conference & Exhibition details.
 - 27-28 September 2022, Kuala Lumpur at the Pullman hotel
 - Call for Abstracts is open, closes on February 21st 2022
 - [Link to Conference](#).
 - Recognition by IADC to the outgoing 2021 MPD Committee Chairman Roger van Noort.
- **08:15 – 08:30: Announcements**
 - Roger and Martyn presented at the IOGP Wells Expert Committee on November 11th. We first introduced our committee and shared our mission statement, the meeting frequency, our support for the annual MPD SPE meeting and the generation and maintenance of API documents. An overview of each subcommittee current work was provided. The second part of the presentation (by Martin) was called "MPD & Well Control". We explained our barrier philosophy and in more detail the MPD Operations Matrix as the guiding tool for changing from MPD to (secondary) Well Control.
 - API update by Roland Goodman. RP79-1 (Tripping Operations in Hydrostatically Overbalanced Wells) was sent out for comment. Comments were received and the draft was updated and shared. Formal ballot approval of the document is expected in January 2022. RP79-2 (Tripping Operations for MPD Operations) to start in 2022.
- **8:30 – 0910: Subcommittee updates:**
 - UBO - Nadine Osayande / Isabel Poletzky

API92U: Continue to work on document (80% complete) and specifically working on the new addendums Coiled Tubing, Multiphase, Returns Management Drilling and Air Drilling. Align these sections with the land guidance document, including Process flow

diagrams for these operations. Included Equipment recommendation tables. Request from this subcommittee for more volunteers to join.

- MPD - Andre Alonso Fernandes / Leiro Medina

Influx management annex comment review 60% complete, regular meetings held since the last Subcommittee meeting to review the comments on from the Ballot. Update on 12/9: Comments review of influx management annex complete.

The MPD Control System Guidance document is not progressing, the work on the Annex has priority.

- DGD - Jon Thain / Per Christian Stenshorne

API92C (Controlled Mud Level systems). Comments from API (editorial) received. Finalize document to return to API before year end.

- RGH – Oscar Gabaldon / Omer Kaldirim

The RGH committee continue to hold regular (bi-weekly) meetings. Oscar performed a complete review the document. Riser equilibrium concept being discussed. Reviewing the methods of managing the RGH. Discussions have delayed the final draft.

- HSE – Ernest Okeke / Guilherme Vanni

The WellSharp curriculum revision is complete (including the WellSharp advisory board). The subcommittee is still looking for funds from the industry. Funding status to date Approx 22,000 received. Blade, IOGP, Pruitt (\$5,000) and Petrobras (\$ 10,000) pledged, but not received. Funding required = \$75,000. Letters sent to companies for funding support; request reach out to your company for support. Next step is to develop the question database for Questions.

- API 16 RCD - Micah Spahn / Joe Karigan

The 3rd Edition was balloted (closing date 21st September). Ballot results: All affirmative votes, 131 comments received. Start to work comments during 8-9 Dec subcommittee sessions. Update on 12/9: Review of all 131 comments completed

- **9:10 – 10:15: Vote for the new Committee & Subcommittee Vice Chair persons.**

2022 Vice Chair Elections (Vice Chairs become Chair in 2023)

Vice Chair elections based on one vote per company.

- IADC UBO/MPD Committee Chair: Martyn Parker

- Vice Chair elected: Chris Scarborough

- UBO Sub Committee Chair: Isabel Poletzky

- Vice Chair elected: Antonio Torrealba

- MPD Sub Committee Chair: Leiro Medina

- Vice Chair elected: Andre Fernandes

- DGD Subcommittee Chair: Per Christian Stenshorne

- Vice Chair elected: Bing Yang

- RGH Sub Committee Chair: Omer Kaldirim
 - Vice Chair elected: Oscar Gabaldon
 - HSE Sub Committee Chair: Guilherme Vanni
 - Vice Chair elected: Matt Kvalo
 - API 16RCD Subcommittee Chair: Micah Spahn, Vice Chair: Joe Karigan
 - It was proposed and agreed to not change the Chair/Vice Chair for 2022.
 - New Item: Task Group proposed to generate proposals to BSEE (US Gulf of Mexico specific regulatory requirement) to update NTL 2008-G07 (Guidance for MPD – SBP for surface stacks) and a new NTL for MPD use with Subsea stacks. Generate ToR, identify group members and re-engage with BSEE to get steer on the desired format. (Roger van Noort). Note: the last meeting on this topic with BSEE was in 2018
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- **11:00 – 11:10: Review 2022 meeting schedule**
 - Q1 meeting – March 1-3 – IADC Houston + Virtual
 - Q2 meeting – June 14-16 – Virtual (+ suggestion for F2F location?)
 - Billy Walker offered the NOV office in Houston as an alternate F2F location. To be confirmed by Billy.
 - Q3 meeting – Sep 29-30 (Following the KL Conference Sep 27-28) in KL
 - Q4 meeting – Dec 6-8 - IADC Houston + Virtual
 - **11:10 – 11:25: AOB**
 - Antonio Torrealba will be on point for RP79-2 (Tripping Operations for MPD Operations) to start in 2022.
 - Sara Shayegi provided an update on the upcoming changes with regards to Non Return Valve for Drill Strings. The API 7NRV was changed in its 2nd edition to API 7 V, and the scope changed from NRV's to "This standard specifies the minimum design requirements for the following drill stem valves: drill pipe float valves, Kelly valves, and inside blow out preventers". Some key changes to be aware of include that the term NRV is no longer used, it is replaced with drill pipe float valve (DPFV) which is defined as Downhole non-return safety valve that creates a barrier to prevent unwanted flow of fluids up the drill string. The testing requirements also changed to become much more stringent and in some cases not feasible such as for gas or hydro pressure testing at rated working temperature. Test differences are summarized in table at the end of these minutes.
 - Roland Goodman requested that the responsibility for communication regarding API documents is not tied to the Chairman function of the subcommittee. It is proposed that one person remains responsible for the communications with API (Roland) for the full cycle (new document or document revision) of an API document (Draft, Ballot, comment reviews, etc) till completion.
 - **11:25: Adjourn**

December 8-9 – Subcommittee meetings from 08:00 – 12:00 on both days:

Wednesday / Thursday December 8-9 Subcommittee Meetings	
8 am – Noon CST	<ul style="list-style-type: none"> • UBO Subcommittee (Chair: Nadine Osayande Amini, Vice-Chair: Isabel Poletzky) • MPD Subcommittee (Chair: Andre Alonso Fernandes, Vice Chair: Leiro Medina) • DGD Subcommittee (Chair: Jon Thain, Vice Chair: Per Christian Stenshorne) • RGH Subcommittee (Chair: Oscar Gabaldon, Vice Chair: Omer Kaldirim) • HSE Subcommittee (Chair: Ernest Okeke, Vice Chair: Guilherme Vanni) • 16RCD Subcommittee (Chair: Micah Spahn, Vice Chair: Joe Karigan)

Test differences API 7NRV and API 7V:

Test	API 7NRV	API 7 V	Comment
1. Water Pressure Test	7.4.2 Rated Working Pressure test with water for 5 min with leak not exceeding 0.6 in ³ /min (10cm ³)	[4.5.9]: 250 psi test with water for 1 min with leak not exceeding 0.5 in ³ /min. Then high-pressure test at RWP with water with leak not exceeding 0.5 in ³ /min.	
2. Nitrogen Pressure Test	7.4.4/7.5 NRV float insert N ₂ pressure test, 250 psi +/-10 psi for 1 minute; measure leakage for minimum of 10 min, max of 15 min. Repeat with 25% of Rated Working Pressure of NRV. Leakage <= 5 scf/min Temperatures to be tested: Ambient (65-90F), 125F, 180F	[4.5.4 (d)]: Perform 4.5.5 (DPFV float insert nitrogen pressure test). 250 psi (+/- 10 psi) for 1 minute; measure leakage for min 10 min & max 15 min. Repeat at 25% (+/-5%) of RWP of DSFV. Leakage <= 5 scf/min Temperatures to be tested at: Ambient (65-90F), 125F, Rated Working Temperature (RWT)	Issue: For example Manufacturer S RWT is 450 F, unsafe to test using gas to Rated Working Temperature using gas.
3. Hydro Pressure Test	7.4.6 NRV float insert hydro pressure test at 100% of rated working pressure fr 3 minutes; collect and examine leak for minimum of 5 and max of 10 minutes, max leak rate <= 0.5 in ³ /min	[4.5.4 (f)]: Perform 4.5.6 (DPFV float insert hydro pressure test). 100% (+10%, -0% RWP) wait for 3 min; collect examine leak for minimum 5 min and max 10 minute. Leak rate <= 0.5 in ³ /min	Issue: For example Manufacturer S RWT is 450 F, unsafe to test using water to Rated Working Temperature since it turns into vapor,

	Temperatures to be tested: Ambient (65-90F), 125F, 180F	Temperatures to be tested at: Ambient (65-90F), 125F, Rated Working Temperature	consider using stable synthetic fluid.
4. Cycling Test	7.4.7 NRV float insert cycling test, circulate in free flow direction >= 5 minutes at manufactured rates. Reverse direction flow to restrict direction of NRV for 5-30 seconds. Switch circulation back to free flow. Then repeat 100 times.		7NRV does cycling followed by erosion
5. Erosion Test	7.4.8 NRV float insert erosion test. Sand content 2% of 80-100 mesh sand; viscosity 75 s Marsh. Circulation flow velocity of 20 ft/second at minimum cross section, circulate for 200 hours.	[4.5.4 (g)]: Perform 4.5.7 (DPFV float insert erosion test). Sand content 2% (+/- 0.5%); viscosity 75 s (+/- 10s) Marsh. Circ. Flow velocity of 35 ft/s at minimum cross-section. Circulate for min 200 hr.	7NRV Circulate at 20 ft/sec (erosion tests) 7V (future): 7V (future): Circulate at 35 ft/sec (erosion tests) Getting sufficient pumping capacity for 7V testing.
Cycling Test		[4.5.4 (h)]: Perform 4.5.8 (DPFV float insert cycle test). Circulate 20 ft/s in free-flow direction >= 5 min. Reverse direction flow for >= 10 psi for 5-30 sec. Switch circ. Back to free-flow. Repeat 100X.	7V does erosion test followed by cycling. Note that many NRVs/DPFVs may not last for 200 hours of erosion testing to then be available for cycle testing.
6. Repeat Nitrogen Pressure Test(2)	Repeat Nitrogen Pressure test as per 2.	Repeat Nitrogen Pressure test as per 2.	
7. Repeat Hydro Pressure Test (3)	Repeat Hydro Pressure test as per 3.	Repeat Hydro Pressure test as per 3.	
	Pass API 7 NRV	Pass API 7 NRV	