API WIWC TG-5

Well Intervention Well Control Task Group

2017 API E&P Winter Conference Update
API WIWC TG-5

Well Intervention Well Control Task Group

Chairman – Alex Sas-Jaworsky PE
Vice-Chairman – Steve Deshotels
Secretary – Jessica Lin
API WIWC TG-5

Technologies Addressed

• Coiled Tubing
• Snubbing
• Wireline (Slickline and E-Line)
API WIWC TG-5

Standard Developed
Recommended Practice 16ST
“Coiled Tubing Well Control Equipment Systems”

First Edition – March 2009
Reaffirmed December 2014
RP 16ST 1st Edition Activities

Prepared Based on Status of CT Equipment Performance “As-Found” Within Coiled Tubing Industry

(Pre-2000 through 2008)
Recent RP 16ST Activities

• Conducted 5-Year Review of RP 16ST 1st Edition

• Standards Review Reaffirmed in December 2014
Current RP 16ST Activities

2nd Edition Undergoing Thorough Evaluation of Where CT Equipment Performance “Should-Be” Based on Current Status of Associated and Related API Standards
Current RP 16ST Activities

2nd Edition Review Employed Use of Argonne National Laboratory “Success Path” Process Where CT Barriers are Evaluated as Follows:
Success Path Process

1. Identify Physical Barrier Systems Needed in Place for a Given Operation, and Safety Functions That the Barriers are Required to Perform.
Success Path Process

2. Ensure that the Physical Barrier Systems are Designed and Configured to Effectively Perform Their Safety Functions.
Success Path Process

3. Determine and Implement Pre-Planned Actions and Strategies for Restoring Barrier Systems When One or More of the Barrier Systems Fail or are Degraded.
Status of RP 16ST TG Meetings

• Prepared “Success Path” Flow Charts to Confirm Barriers are Appropriate for Intended Service

• Identified Gaps in Barrier Service Projected to Occur in CT Operations
Preliminary Conclusions

- Stripper Reclassified From “Barrier” to “Pressure Control Component”
- One Previously Defined “Barrier” is **Sequence Sensitive** and Needs Further Evaluation as to Functionality
Preliminary Conclusions

- Each CT Barrier Must Have a “High-Confidence” Power Source (CT Unit Pump + Accumulator System) to Meet Requirements of a Reliable CT Well Control/Pressure Containment Barrier
Preliminary Conclusions

• TG Tasked to Align CT Accumulator System Requirements With Spec 16D
• Spec 16D Accumulator Approach for Dedicated SBR Accumulator and/or Secondary Charge Pumps Assessed
Direction of RP 16ST TG

- Adopted 10-Second Max. Closing Time for Each CT Ram in Stack
- Reviewing FMECA Results of CT Barriers and Accumulator System Designs (Based on Success Path)
Direction of RP 16ST TG

- Working With Spec 16B Group to Define Performance Expectations for CT Well Control Stack Equipment
- Coordinating CT Well Control Stack Equipment Tests With Spec 16B