



AMERICAN PETROLEUM INSTITUTE
Standards

May 8, 2015
University of Houston Hilton
Houston, TX

2015 BSEE Domestic and International Standards Workshop: Cementing Session

“Cementing Standards Update”

Dan Mueller: Engineering Fellow-Drilling, ConocoPhillips

2014-15 Chairman: API Committee on Standardization of Oilfield Equipment and Materials (CSOEM)

API Subcommittee on Oil Well Cements (SC-10) Standards Portfolio

API Spec. 10A “*Cements and Materials for Well Cementing*”, 24th Edition, December 2010, reaffirmed in April, 2015.

- API Auditor findings and comments are noted as part of the revision process.
- Revision includes changes to consistometer oil specification and may include new specification on “Well Cementing Composites.”

API RP 10B-2 “*Testing Well Cements*”, 2nd Edition

- Published April 2013. Comments are being reviewed.
- Future revisions to include: Stirred Fluid Loss Testing, Fluid Loss Screens and elimination of minor inconsistencies between Spec 10A and RP 10B-2.
- New WG was formed to revise/rewrite Sections 10, 11 & 12, specifically with regards to atmospheric vs HTHP slurry conditioning requirements.

API Subcommittee on Oil Well Cements (SC-10) Standards Portfolio

Rewrite of API RP 10B-3, 1st Edition, “Testing of Deepwater Well Cement Formulations”, July 2004

- Final comment resolution in progress. Primary focus on temperature/pressure schedules for testing at critical well locations (casing shoe, potential flow zone, top of liner, mudline, etc.). Document to be circulated for affirmation and retitled as, “*Testing of Well Cements Employed in Deepwater Well Construction*”.

Rewrite of API RP 10B-4, 1st Edition, “Preparation and Testing of Foamed Cement Slurries at Atmospheric Pressure”, July 2004

- Draft comments resolved. Document is being circulated for affirmation.
- Technical Report (TR) on Foam Cement Behavior under Well Conditions is the second phase of this Work Group charge. Work is progressing.

API Subcommittee on Oil Well Cements (SC-10) Standards Portfolio

API RP 10B-5, 1st Edition, “*Determination of Shrinkage and Expansion of Well Cement Formulations at Atmospheric Pressure*”, April 2005

- Document reaffirmed in 2010, April 2015.

API RP 10B-6, 1st Edition, “*Determining the Static Gel Strength of Cement Formulations*”, August 2010

- Document reaffirmed in April 2015. Document revision is underway by Work Group.

API Subcommittee on Oil Well Cements (SC-10) Standards Portfolio

Rewrite of API Spec 10D, 6th Edition, “*Bow Spring Casing Centralizers*”, March 2002

- Document reaffirmed 2010. Review and update API Spec 10D to include performance testing requirements for centralizers that are to be used in applications where they are run through restrictions that are smaller than the hole size in which they are to be set.

API RP 10D-2, 1st Edition, “*Recommended Practice for Centralizer Placement and Stop Collar Testing*”, August 2004

- Reaffirmed 2010, April 2015.

API Subcommittee on Oil Well Cements (SC-10) Standards Portfolio

Rewrite of API RP 10F, 3rd Edition, *“Performance Testing of Cementing Float Equipment”*, April 2002

- WG will publish API Specification 10F, 1st Edition, which will replace and make obsolete API RP 10F, 3rd Edition. This document will include required specifications and the associated performance testing protocols for the manufacturing of Cement Float Equipment.

Technical Report on, *“Mechanical Cementing Plugs used in Tubing, Casing and Drill Pipe”*

- Final edit check with SC10 Publications Task Group and Formatting by API is in final stage. Expected publication Q3 2015 as API 10TR6.

API Subcommittee on Oil Well Cements (SC-10) Standards Portfolio

Technical Report on “Mechanical Behavior of Cement”

- Document with API for review, formatting, and subsequent Comment Only Ballot. Ballot anticipated to be distributed and closed before Summer Meeting.

API Subcommittee on Oil Well Cements (SC-10) Standards Portfolio

API RP 65, 1st Edition, *“Cementing Shallow Water Flow Zones in Deepwater Wells”*, September 2002

- Reaffirmed 2012, currently being revised by Work Group. Expected publishing date Q1, 2016 as API RP 65-1.

API Standard 65-2, 2nd Edition, *“Isolating Potential Flow Zones During Well Construction”*, December 2010

- Expected reaffirmation in December 2015.

API Subcommittee on Oil Well Cements (SC-10) Standards Portfolio

API Bulletin E3, 1st Edition, Environmental Guidance Document: *“Well Abandonment and Inactive Well Practices for U.S. Exploration and Production Operations”*, January 1993

- Reaffirmed 2000, serve as a framework document for the newly formed Work Group on Well Abandonment.

API Subcommittee on Oil Well Cements (SC-10) Technical Reports Portfolio

API 10TR1: “Cement Sheath Evaluation”, 2nd Edition, 2008

API 10TR2: “Shrinkage and Expansion of Oilwell Cements”, 1st Edition, 1997

API 10TR3: “Technical Report on Temperatures for API Cement Operating Thickening Time Tests”, 1st Edition, 1999

API 10TR4: “Selection of Centralizers for Primary Cementing Operations”, 1st Edition, 2008

API 10TR5: “Methods for Testing of Solid and Rigid Centralizers”, 1st Edition , 2008



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Thank You!