

PROPOSED Changes to API RP 14C

Recommended Practice for Analysis, Design, Installation, and Testing of Safety Systems for Offshore Production Facilities

API RP 14C Schedule

- Previous Schedule
 - Committee work begins – 2010
 - Committee re-organized and scope more fully defined March 2011
 - First draft to API – 4th Qtr. 2013

- Projected Schedule
 - Review, comment and applicability discussions with BSEE – 4th Qtr. 2013
 - Comment review cycle – 4th Qtr. 2013  2014
 - Final standard – 2014

Committee Make-Up

- Chevron
- ExxonMobil
- Shell
- BP
- ConocoPhillips
- BSEE (U.S. Bureau of Safety & Environmental Enforcement)
- ABS (American Bureau of Shipping)
- Helis Oil & Gas Company, L.L.C.
- Marathon Oil Company
- Petrobras
- KBR Engineering
- Mustang Engineering
- Black Elk Energy
- EDG Engineering
- C & D Production Company
- Murphy Oil
- Anadarko Oil
- Apache Oil
- LLOG Exploration
- Energy XXI



Concurrent Standards Work

- API 17V Subsea Safety Systems
 - Provide a clear division for Topsides and Subsea Safety Systems
 - Maintain a similar prescriptive format
 - Ensure consistent requirements for shut-in
 - Aligned definitions
 - Subsea components removed from API 14C and moved to API 17V

Proposed Changes to the 8th Edition?

- Expanded from Platforms to Facilities to cover floating facilities
- Added focus on electronic systems to accommodate new technologies
- Better alignment with API 521 “*Guide for Pressure-Relieving and Depressuring Systems*” for pressure relieving and depressuring systems
- Boarding Valve requirements added
- New requirements to address export pipeline back flow and facility settle out included



Proposed Changes to the 8th Edition?

- Additional requirement for pumps and compressor > 1000 h.p. and reference to API 670 added
- Temporary Equipment defined and required to meet API 14C
- Low Temperature hazards “Embrittlement” addressed
- Open deck Fire and Gas detection sensor placement and sensor type enhanced
- Extensive emphasis on performing hazards analysis to included introduction of the Prevention vs Mitigation concepts

Annex Modifications

- Annexes defined as informative or normative
- Annexes, Figures and Tables updated and corrected
- Appendix B Analysis Tables “Deleted”
- New Annexes Developed
 - Topsides HIPPS
 - Safety System Bypassing
 - Logic Solver
 - Remote Operation

Topsides HIPPS

- HIPPS Requirements
 - 14C will be modified to include HIPPS requirements for topside and some flowlines applications where PSV protection is not provided
 - HIPPS will be an independent system
 - Performance option in accordance with API 521 (i.e. risk based SIL2/3 solution),
OR
 - Prescriptive solution describing,
 - ▶ Design
 - ▶ Commissioning
 - ▶ Documentation
 - ▶ Operation
 - ▶ Maintenance & Testing

Safety System and ESS Bypassing

- Bypass Classes
 - All bypass classes are thoroughly defined
 - Example uses for various bypass classes are given
 - Annunciation requirements for bypasses are defined
 - Specific time delays are outlined and process for extending these time delays is described
- Automated Bypasses
 - Automated bypasses are to be maximized in order to minimize the potential for human error
- Emergency Support Systems (ESS) Bypassing
 - Bypassing of ESS related systems defined in more detail

QUESTIONS

