API SC15 WG02 Spoolable Plastic Line Pipe

GTI Composite Pipe Workshop

17 July 2012
Presentation Outline

Working Group Goals
API ‘SPEC’ 15S Scope
API SC15 WG02 Structure and Membership
History of API RP 15S
Approaches by Other Parties (ISO, End Users, etc.)
Current Status
Timeline of Activities
SC15 WG02 is tasked with re-writing API RP 15S as a single performance based standard for all spoolable composite pipelines:

- Metal reinforced
- Fiber reinforced with or without matrix material
- Fabric reinforced
- Other materials
15S Scope

This Standard Specification provides requirements for the design, manufacture, qualification and application of spoolable reinforced plastic line pipe in oilfield and energy applications

... These products consist of continuous plastic line pipe with helically wrapped metallic and/or non-metallic reinforcing elements

... They are continuous pipeline systems capable of being reeled for storage, transport and installation

... This document contains performance requirements for materials, pipe and fittings

...
API Committee Structure

API

Standards

Committee on Standardization of Oilfield Equipment and Materials (CSOEM)

SC15 – Subcommittee of Fiberglass and Plastic Tubulars

- Spec 15HR, Specification for High Pressure Fiberglass Line Pipe
- Spec 15LR, Specification for Low Pressure Fiberglass Line Pipe
- RP 15TL4, Recommended Practice for the Care and Use of Fiberglass Tubulars
- RP 15CLT, Recommended Practice for Composite Lined Steel Tubular Goods
- Spec 15LE, Specification for Polyethylene (PE) Line Pipe
- RP 15S, Recommended Practice for Qualification of Spoolable Reinforced Plastic Line Pipe

TG02/WG02: Spoolable Plastic Line Pipe
TG02/WG02: Spoolable Plastic Line Pipe Members

Approximately 30 Members:

- Manufacturers:
  - FIBERSPAR®
  - FLEXPIPE SYSTEMS™
  - FLEXSTEEL®
  - FPI FUTURE PIPE INDUSTRIES
  - POLYFLOW®
  - SoluForce®

- End Users:
  - ExxonMobil
  - OXY
  - Shell

- Suppliers/Labs:
  - JANA
  - merl complete engineering solutions
  - REHAU
  - SOLVAY

- Trade Associations:
  - Plastics Pipe Institute®

- Regulatory:
  - PHMSA

- Independent Consultants
History of API 15S Document

1999-2002:
Joint Industry Project (JIP) on “Implementation of Reinforced Thermoplastic Pipes in the Oil and Gas Industries”
Professor Geoff Gibson, Centre for Composite Materials Engineering, University of Newcastle upon Tyne

2002-2004:

2006:
API RP 15S 1st Edition, Qualification of Spoolable Reinforced Plastic Line Pipe

2011:
Working Group initiated to rewrite 15S as an API Specification
Other Related Standards

- API: 15HR, 15LE, 17B, 17J, 17K
- ASTM: D2992, F2686, F2805
- CSA: Z662, Clause 13
- DNV: F201, F202
- ISO: 9080, 13628-2, 13628-11, 18226
- End user specifications (e.g. Shell DEP)
## Current Status and Remaining Work

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<td>3. Definitions</td>
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<td>4. Product Description / Material Requirements</td>
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<td>6. Process and Quality Assurance Requirements</td>
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Timeline for Remaining Activities

- Next meeting scheduled for September 10-12 to continue drafting document
- Tentatively plan to meet in late October or early November to finalize draft
- Goal is to complete the document by the end of 2012 for balloting by the SC15 membership
- SC15 Ballot in the First Quarter of 2013
- Anticipated Publication in the Second Quarter of 2013