API Standards

For Industry, by Industry

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API Standards Program

Presentation will cover

- API standards background
- API programs and committees
- API standards and regulations
- API standards and the global oil and gas industry
API Standards Background

- API formed in 1919, Standards Department formed in 1923 as one of three initial API foundational programs
  Others were industry statistics and taxation

- First standards published in 1924 on pipe sizes, threads, and couplings

- All industry segments now active in standards work
  - Exploration and Production
  - Refining
  - Marketing
  - Pipeline Transportation
  - Petroleum Measurement
API Standards Program

Program Mission

Provide a forum for development of consensus-based industry standards, and technical cooperation to improve the industry’s safety performance and competitiveness.
API Standards Program Accreditation

▲ API is accredited by the American National Standards Institute (ANSI)

▲ ANSI accreditation requires
  ➢ Openness, balance, consensus, due process
  ➢ Approved and published procedures
  ➢ Regular updates to standards
  ➢ Program audits by ANSI every five years
API Standards Program

- API publishes ~700 technical standards covering all aspects of the oil and natural gas industry

- Approximately 20% of all API standards are referenced in the U.S. regulations

- Over 7000 active volunteers representing over 50 countries
API Standards Program

- Basis for company operations worldwide
- Foundation of API quality and certification programs
- Core of institute’s technical authority
API Industry Programs

- API Monogram Program
- API Quality Registrar
- Individual Certification Programs
- API WorkSafe Program
- Engine Oil Licensing and Certification System
- API University
API Standards Committees

- Committee on Standardization of Oilfield Equipment & Materials (CSOEM)
- Drilling and Production Operations Subcommittee (DPOS)
- Committee on Refinery Equipment (CRE)
- Committee on Petroleum Measurement (COPM)
- Safety & Fire Protection
- Pipeline Transportation
- Marketing & Aviation
API Standards Committees

- Standards committees typically meet twice a year
- Subgroups (task groups, resource groups) meet as needed to progress work, often via conference calls or web meetings
- Balance between operators, manufacturers, contractors, service companies, and consultants
- API corporate membership is not a requirement for participation on API standards committees
Standards Development Process

- Developed using a consensus-based process (does not mean unanimity)
- Generally written for flexibility as performance-based documents
- Standards committees decide when to develop a new standard
Standards Development Process

- Voting rights are determined by level of participation

- All comments **must** be considered regardless of their origin and the resolution documented

- One vote per company on standards ballots
What makes a good standard?

- Proven engineering practices – the terms “good” or “best” practices are subjective
- Clear objective based on sound technical principles
- Reasonable and practical
- Not restrictive of technology development
- Input from all stakeholders
- Addresses those issues that make a difference
- Risk-based when appropriate
API Document Designations

- Specifications
- Standards
- Recommended Practices
- Bulletins
- Technical Reports
API Document Designations

- **Specifications** – Documents written to facilitate communications between purchasers, manufacturers, and/or service suppliers

- **Standards** – Documents that combine elements of both specifications and recommended practices
API Document Designations

- **Recommended Practices** – Documents that communicate proven industry practices; RPs may include both mandatory and non-mandatory provisions

- **Bulletins & Technical Reports** – Documents that convey technical information on a specific subject or topic and are generally issued on a one time-basis
API’s Standards and their Relationship to Regulations
Compliance with Industry Standards

- All API documents are voluntary unless imposed by regulation, contract, or company procedures.
- The document type (Spec, Std, RP, etc.) does not determine compliance.
API’s Standards and their Relationship to Regulations

- In 1995, the U.S. passed the National Technology Transfer and Advancement Act (NTTAA)

- The NTTAA requires U.S. federal agencies to use industry consensus standards and encourages participation in the standards development process

- Since 2000, the Federal Government has doubled its use of consensus standards and increased participation
API’s Standards and their Relationship to Regulations

- 135 of API’s standards are referenced over 460 times in the U.S. Code of Federal Regulations
  - Agencies include BLM, BSEE, DOT, EPA, OSHA, SEC and USCG

- States also widely cite API standards
  - 216 API standards cited over 4035 times

- API standards are also the most widely cited by international regulators

- All safety and referenced standards are available for free viewing on the API website (http://publications.api.org)
API Standards Cited by International Regulators

- Australia National Offshore Petroleum Safety and Environmental Management Authority, (NOPSEMA) – Safety Case Regulatory Approach
- Brazilian National Petroleum Agency, (ANP) – 22 API citations
- Canada-Newfoundland and Labrador Offshore Petroleum Board, (C-NLOPB) and Canada-Nova Scotia Offshore Petroleum Board, (CNSOPB) – 32 API citations
- Danish Energy Agency (DEA) – 20 API citations
- The Netherlands State Supervision of Mines (SSM) - hybrid regulatory approach – 1 API citation of a total of 4 citations
- Norway Petroleum Safety Authority, (PSA) – 36 API citations
- U.K. Health and Safety Executive (HSE) – 33 API Citations
- U.S. Bureau of Safety and Environmental Enforcement (BSEE) – 88 API citations
Global Standards Strategy

- API is currently reviewing its processes and procedures to enhance participation by global experts in its standardization activities.

- Building on API’s existing international offices in China, Singapore, Brazil, UAE, and Europe (2016).

- Expect approval of the global strategy from API’s Executive Committee in November 2015.
Links to More Information

- API Procedures for Standards Development

- API Format and Style Manual

- Annual API Standards Plan

- Meetings & Training
  [http://www.api.org/meetings](http://www.api.org/meetings)

- Catalog of Publications
  [http://www.api.org/publications](http://www.api.org/publications)
Summary

- API standards represents industry’s collective wisdom on proven industry practices developed and refined over 90 years
- API standards and programs are a key part of industry operations
- API standards are the most widely cited standards by international regulators
- API is updating its standards program and strategy to increase global participation
Questions??