API Standards Overview

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API Mission

To influence public policy in support of a strong and viable U.S. oil and natural gas industry essential to meet the energy needs of consumers in an efficient and environmentally responsible manner.
API History

- 1919: API founded in New York City as a non-profit national trade association
- 1969: API relocates to Washington, DC
- 1995: Closed Dallas E&P office and consolidated certification and standards-related activities in Washington, DC
- 2007: Opened first international office in Beijing, China; evaluating other locations in the Middle East and India
API Roles

- Engage in legislative and regulatory advocacy
- Influence public policy
- Provide a forum to develop consensus industry positions on various issues
- Standards development
- Oversee certification programs
- Conduct research
- Gather statistics
- Work collaboratively with other associations
- Publish technical industry information
API Structure

- Over 400 member companies involved in all aspects of the oil and natural gas industry

- Over 700 committees and task forces covering various advocacy and technical issues

- Staff of 280 led by board of directors made up of member company CEO’s
API Standards Program

• The API Standardization Department was formed in 1923, and the first API standard was published in 1924 on drill pipe threads

• Over 6000 active volunteers representing over 50 countries

• All industry segments now active in standardization
  – Exploration and production
  – Refining
  – Marketing
  – Pipeline transportation
API Standards Program

- API publishes ~500 technical standards covering all aspects of the oil and natural gas industry
- Foundation for API self-supporting programs
- Basis for company operations worldwide
- Core of institute’s technical authority
- One-third of all API standards are referenced in the U.S. Code of Federal Regulations
API is accredited by the American National Standards Institute (ANSI)

- Openness, balance, consensus, due process
- Regular program audits (conducted by ANSI)

Transparent process

- Anyone from any country can comment on any document
- All comments must be considered and documented
API Standards Development Process

- Developed by consensus (does not mean unanimity)
- Committee balance between users, manufacturers, contractors, and consultants
- Standards developed using ANSI-approved standards development procedures
- API corporate membership is not a requirement for participation on API standardization committees
API Standards Committees typically meet twice a year

- Subgroups (task forces, resource groups) meet as needed to progress work, often via conference calls or web meetings
- Oversight committees (ECS, COPM, CRE) meet to monitor work program
- All standards balloting is done via the web
API Standards Committee Structure

- Committee on Standardization of Oilfield Equipment & Materials (ECS)
- Committee on Petroleum Measurement (COPM)
- Committee on Refinery Equipment (CRE)

- Marketing/Aвиation
- Pipeline Transportation
- Safety & Fire Protection
- Petroleum Industry Data Exchange

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Executive Committee on Standardization of Oilfield Equipment and Materials (ECS)

- Provides leadership in the development and maintenance of standards that promote broad availability of safe, interchangeable oilfield equipment and materials, and, promotes broad availability of proven engineering and operating practices

- Supervises work of twelve subcommittees

- Approximately 200 standards
Petroleum Measurement Committee on Petroleum Measurement (COPM)

- Provides leadership in developing and maintaining hydrocarbon measurement standards based on sound technical principles consistent with current technology, recognized business accounting, and engineering practices
- Supervises work of seven subcommittees
- Approximately 150 Standards
Committee on Refinery Equipment (CRE)

- Promotes safe and proven practices in the design, fabrication, installation, inspection, and use of materials and equipment in refineries and petrochemical processing facilities.
- Supervises work of nine subcommittees
- Approximately 100 standards
Other Areas of API Standardization

The remaining API standards cover

- Marketing/Aviation
- Pipeline Transportation
- Safety and Fire Protection
- Petroleum E-commerce
Use of API Standards

• Written for flexibility as performance-based documents

• Increased adoption by U.S. federal agencies
  – API does not promote adoption; member companies prefer voluntary use

• Widely used in industry operations internationally
API Support of International Standards

• API is the secretariat for TC 67/SC 4 as well as other industry-related ISO subcommittees

• API is active in standardization activities with other international organizations
  – Energy Institute for measurement and aviation fuel standards
  – International Lubricant Standardization Approval Committee for engine oil standards
  – International Petroleum Industry Environmental Conservation Association for environmental issues

• API seeks additional international relationships
API Gas-Lift Standards

• **Spec 11V1** – Specification for Gas-lift Equipment (reaffirmed 2008)

• **RP11V2** – Gas-lift Valve Performance Testing (reaffirmed 2008)

• **RP 11V5** – Operations, Maintenance, and Trouble-Shooting of Gas-lift Installations (revised 2008)

API Gas-Lift Standards

- **RP 11V7** – Repair, Testing, and Setting Gas Lift Valves (reaffirmed 2008)
- **RP 11V8** – Gas Lift System Design and Performance Prediction (reaffirmed 2008)
- **RP 11V9** – Operation, Maintenance, Troubleshooting and Design/Re-Design of Dual Gas-Lift Systems (work underway)
- **RP 11V10** – Design of Intermittent and Chamber Gas-Lift Wells and Systems (new 2008)
- **RP 11V11** – Application of Dynamic Simulation Techniques for Designing and/or Optimizing Gas Lift Wells and Systems (work underway)
API Gas-Lift Standards

Future Challenges

• U.S. national adoption of ISO standards will necessitate evaluation and probable withdrawal of some of API gas-lift standards

• Impact of ISO national adoptions and withdrawal of API 11V1 on suppliers who have gone to the effort and expense to obtain an API Monogram license
Add value to the oil and gas industry through

• Improved safety and reliability
• Reduced regulatory compliance costs
• Reduced procurement costs
Thank you!

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