American Petroleum Institute (API)

API Standards – For Industry, By Industry
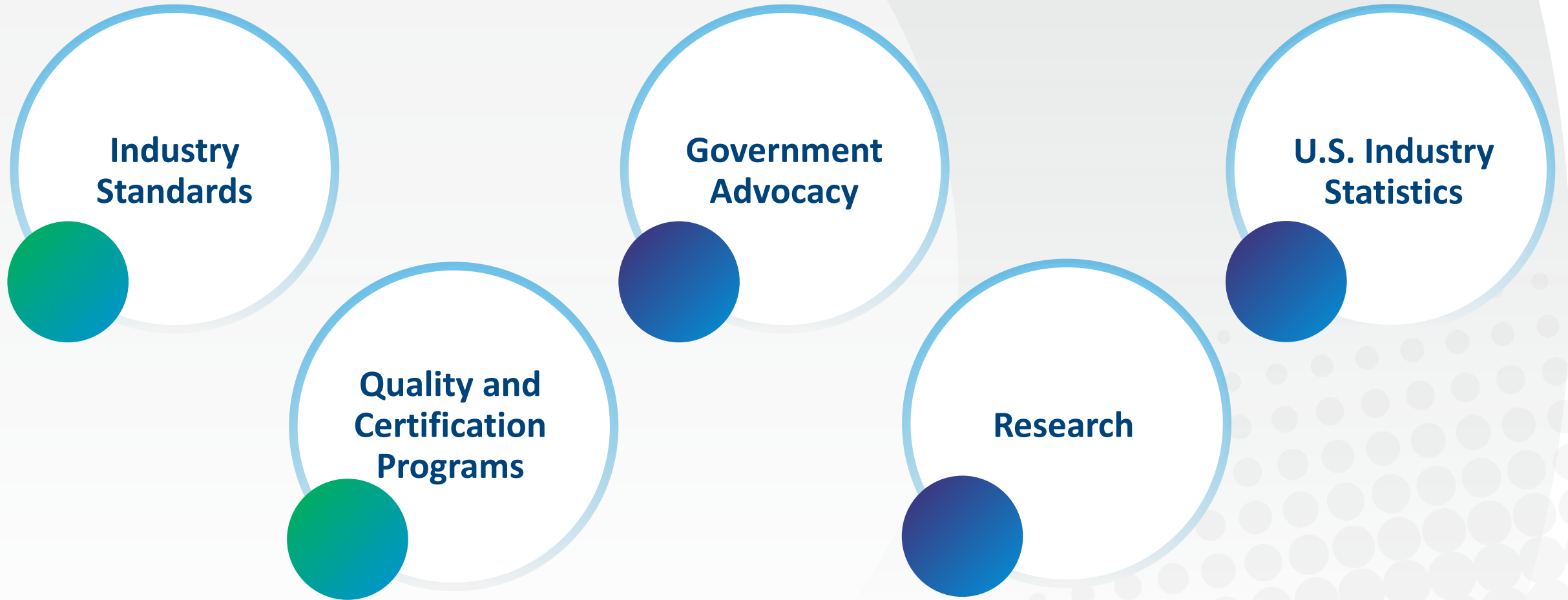
Roland Goodman
Senior Manager, Upstream Standards

API Functions

Industry Standards

Quality and Certification Programs

Government Advocacy

Research

U.S. Industry Statistics

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API Global Industry Services

Serving the Oil & Gas Industry Globally

- 110+ Employees
- 145 Auditors
- 200 Training Programs
- 8 Statistical Products
- 800+ Publications
- 200+ Events

- 56,000 Personnel Certifications in 128 Countries
- 5,000 Company Certifications in 80+ Countries
- 50,000+ Licensed Products

Offices in Washington D.C., Houston, Beijing, Dubai, Rio de Janeiro

Mission: Provide world-class services that enable the oil & natural gas industry to operate efficiently, safely, reliably, profitably and sustainably and enhance API's advocacy potency

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API Standards

Setting standards since 1924 to promote safety, environmental protection, and sustainability through proven engineering practices

Accredited

by the American National Standards Institute (ANSI)

800+ Standards

Published and updated

Covering all industry segments

Upstream (Exploration & Production)

Downstream (Refining and Marketing)

Midstream (Pipeline, Rail, & Truck transportation and Petroleum Measurement)

Low Carbon Activities (CCS, Hydrogen, Offshore Wind, Geothermal).

API Standards in Regulations

650 U.S. Federal References
By U.S. federal government organizations: US Coast Guard, US EPA, FTC, BSEE, OSHA, and PHMSA

3,800+ references in US State regulations
State regulatory agencies across all 50 states

1,100+ International regulatory references in 31 markets
In Brazil (50+), Guyana, India, Indonesia, Australia, Japan, and more.

API Standards Development

Committees comprise of 10,000+ volunteers (over 2,100 international), and API standards development and ballot commenting is open to all materially affected stakeholders, including international experts.

Transparent, impartial, and consensus-based process that is driven by research, data, and science-based decisions.

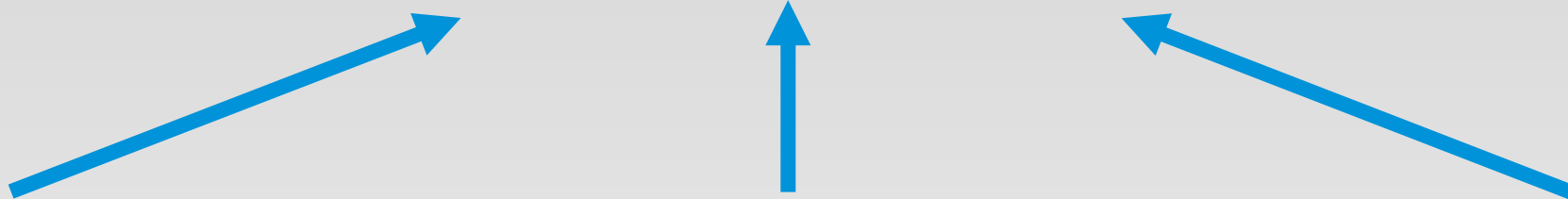Standards incorporate proven engineering practices and are updated periodically.

API collaborates internationally to avoid duplication and enhance international participation through the Global Standards Strategy.

<u>s</u>tandard
Umbrella Term Used for API Consensus-based Documents

<u>Standard</u> (Std)
Combination of Specs and RPs

<u>Recommended Practice</u> (RP)
Best practices for processes and operations

<u>Specification</u> (Spec)
Performance and manufacturing requirements for equipment and materials

✓ Each <u>s</u>tandard type can contain mandatory or nonmandatory provisions

✓ Bulletins and Technical Reports convey technical information but are not formal standards since they are not required to go through the consensus voting process

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API Standards Development Process

Consensus-Based Process

API Standards Committees lead the development of API standards through API's ANSI-approved voluntary consensus standards development process that meets the criteria of due process, openness, transparency, and balance.

New Standards Request

- Committees identify the needs for a new standards—or revisions—and coordinate with other SDOs as needed.

Committee Development

- Committees launch task groups to write the content of the standard.
- Task groups maintain the standard and write new standards and revisions.

Ballot

- Ballots are open for comment to all materially-affected stakeholders.
- Subcommittee members vote on the document.
- Must reach consensus (2/3 approve vote with majority participation).

Comment Resolution

- Task Group review and resolve each comment submitted to a ballot during comment resolution meetings.
- Comments are accepted, accepted with modifications, or rejected with reason.

Publishing

- Document is reviewed by API editors and published.
- Standards are maintained through a 5-year cycle.

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API Consensus

Consensus is established when **substantial agreement** has been reached by directly and materially affected interests.

Substantial agreement means more than a simple majority but **not necessarily unanimity.**

Consensus requires that **all views and objections must be considered**, and that a **reasonable effort be made toward their resolution**.

API's criteria for achieving consensus are defined as a **majority of those eligible to vote shall have voted** *and* **approval by at least two-thirds** of those voting, excluding abstentions.

Balanced Representation

- API seeks broad input to its standardization activities including the participation of all parties representing interest categories appropriate to the nature of the standard and allows for open attendance at standards meetings

- API strives for balanced representation from each interest category (for example, operator-user, manufacturer, service supplier, and general interest)

- Balance is a consideration for consensus voting groups only

API Standards Committee Structure

Committee
Oversees the work of subordinate committees to approve standards research and projects and coordinates cross-committee issues.

Subcommittee
Each committee has various subcommittee that focus on specific subject matter. Voting of standards is completed at the subcommittee level. Includes a Chair, Vice-Chair, Secretary.

Task Groups
Subcommittees have task groups dedicated to each standards. Task groups develop the material and resolve comments after ballot. Task group participation has the most impact on the material. They have a Chair and often a Vice Chair.

API Upstream Standards Program

Committee on Standardization of Oilfield Equipment and Materials (CSOEM)	✓ Supervises work of 15 subordinate committees ✓ Coordinates cross-committee issues ✓ Approves standards research
Drilling and Production Operations Subcommittee (DPOS)	✓ Responsible for 56 standards ✓ Each standard is maintained by individual task groups ✓ Coordinates with IADC and OOC when necessary

Offshore Structures (SC 2)

Tubular Goods (SC 5)

Valves and Wellhead Equipment (SC 6)

Drilling Structures and Equipment (SC 8)

Well Cements (SC 10)

Field Operating Equipment (SC 11)

Drilling, Completion, and Fracturing Fluids (SC 13)

Fiberglass and Plastic Tubulars (SC 15)

Drilling Well Control Systems (SC 16)

Subsea Production Equipment (SC 17)

Quality (SC 18)

Completion Equipment (SC 19)

Supply Chain Management (SC 20)

Materials (SC 21)

Offshore Cranes and Safe Lifting (SC 22)

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Midstream: Committee of Petroleum Measurement (COPM) & Committee on Pipeline Standards (COPS)

COPM

Responsible for the Manual of Petroleum Measurement Standards (MPMS)— the mostly widely cited standards by regulators addressing global custody transfer operations. Subcommittees include:

Measurement Education and Training	Evaporation Loss Estimation	Production Measurement Allocation
Measurement Accountability	Measurement Quality	Gas Fluid Measurement / Liquid Measurement

COPS

API's newest committee that oversees standards for key component of pipeline safety. It includes nine technical voting groups:

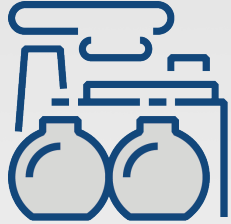|		
Gathering Lines	Underground Storage	Cybernetic Construction Operator Qualification
Integrity	Emergency Response	Public Awareness / Safety Management Systems

API Downstream Standards

API has approximately 250 downstream standards under the **Committee for Refining Equipment (CRE)**. The CRE oversees standards development for refining equipment and operations for petroleum, gas, and petrochemicals for the following subcommittees:

- ✓ Process Safety Group
- ✓ Safety and Fire Protection
- ✓ Instrument and Control Systems
- ✓ Electrical Equipment

- ✓ Heat Transfer Equipment
- ✓ Piping and Valves
- ✓ Mechanical Equipment
- ✓ Pressure-relieving Systems

- ✓ Aboveground Storage Tanks
- ✓ Corrosion and Materials
- ✓ Inspection
- ✓ Marketing

Std 650, Welded Storage Tanks

RP 754, Process Safety Indicators

RP 755, Fatigue Risk Management

RP 2001, Fire Protection in Refineries

Balloting

- Balloting is conducted using API's electronic balloting system, EBallot https://ballots-prod.api.org/Login

- Ballots are generally set for six weeks and notifications are sent out to those on the roster.

- Commenting on ballots is open to all materially-affected stakeholders. All comments are addressed during comment resolution meetings.

- Voters can vote affirmative, affirmative with comments, negative, or abstain. All negative votes are reviewed.

- For a ballot to pass, the majority of the members must vote and at least two-thirds of the votes must be affirmative.
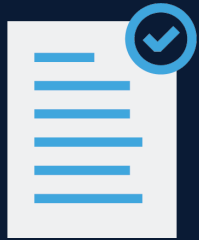

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Balloting System

Open Ballots

Copy | CSV | Print | Show 10 rows

Search:

BallotId	Ballot	Committees	StartDate	Close Date	Associate	Document
6442	6AV1_e4 Ballot draft Ballot	SC06/V06A: Wellhead & Christmas Tree Equipment	08-09-2024	09-20-2024	Jose Godoy	Open Document
6441	API MPMS Chapter 5.1 General Considerations for Measurement by Meters, Fifth Edition - WG COMMENT ONLY	COLM Ch. 5.1 General Consideration for Measurement by Meters; COLM Ch. 5 Metering WG;	08-09-2024	09-20-2024	Nicholas Monchak	Open Document
6440	API MPMS Chapter 12.2 Calculation of Petroleum Quantities Using Dynamic Measurement Methods and Correction Factors - Addition of mass conversions limited revision	COLM: Committee on Liquid Measurement	08-08-2024	09-20-2024	Nicholas Monchak	Open Document

Voting Rights

Voting/consensus groups are made up of a balanced group of voters according to interest category (operator-user, manufacturer, and general interest), and only one vote is permitted for each voting company.

Subcommittee chairs approve voter requests and consider the following when granting voting rights when there is an open position that fits the balance requirement needs:

- ✓ Technical Competence
- ✓ Regular attendance and robust participation

- ✓ Management Support
- ✓ Ongoing comment participation

All interested parties (voting and non-voting) can participate in the standards development process.

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Best Practices for Participation

Review the API's *Procedures for Standards Development* and related API training modules.

Participate in task groups meetings and attend API standards conferences. Most task group meetings are virtual, and conferences are held in-person twice a year for each industry segment.

Review ballots and submit comments and volunteer for tasks and management roles when available.

Don't be afraid to ask questions! API representatives and group leadership are supportive.

Procedures for Standards Development

AMERICAN PETROLEUM INSTITUTE
SEVENTH EDITION, APRIL 2022

ANSI APPROVED: APRIL 2022

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API Standards & Low Carbon

API is developing new guidance and updating existing standards to incorporate low carbon activities within 5 focus areas.

Carbon Capture & Storage

- Leveraging industry leadership, innovation, and experience in handling CO2.

Low-carbon Hydrogen

- Prioritizing low carbon intensity hydrogen by applying industry's robust experience with hydrogen production and handling.
- API is color-neutral and supports policies that meaningfully reduces emissions.

Renewables

- Transferring industry knowledge to renewable areas, such as offshore wind and geothermal.

NEV Fluids

- Expanding standards and programs to apply to fluids in new energy vehicles.

Refining Energy Efficiency

- Exploring areas and programs to support GHG management and the reduction of refinery emissions

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API Standards Information Links

- Committee SharePoint Sites – https://mycommittees.api.org/myc-standards-ecs

- API Open Ballots – https://ballots-prod.api.org/Home/OpenBallots

- Requests for Interpretations of Standards (RFI's) – https://www.api.org/products-and-services/standards/standards-inquiries

- Meeting Information – https://events.api.org/#upcoming-events

- API Webstore – https://www.api.org/products-and-services/standards/purchase

- Standards Plan – https://www.api.org/products-and-services/standards/standards-plan

- API Learning Management System – https://apilearning.org/#/public-dashboard

Thank you!

Roland Goodman
goodmanr@api.org

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