



American Water Works
Association



AWWA Standards for Water Treatment Products, Distribution System Components, and Utility Management

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*Workshop on Water and Sanitation Systems in India:
Leveraging Standards for Infrastructure Improvement
June 26-27, 2018*



Agenda

1. Introduction to American Water Works Association
2. Water and wastewater products, services, and processes covered by AWWA standards
3. AWWA Utility Management Standards
4. Understanding AWWA Standards
5. AWWA standards – What they are and how the U.S. water industry uses them
6. Core principles of AWWA standards development
7. How AWWA standards are initiated, developed, and approved

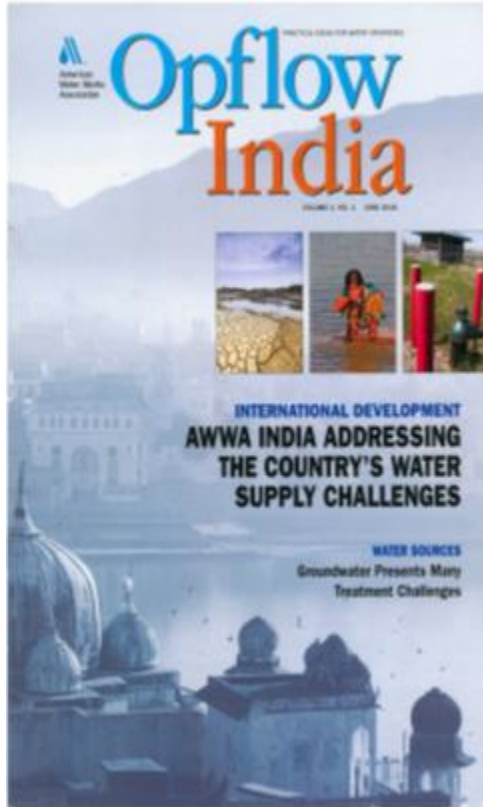




American Water Works Association

- ◆ Nonprofit scientific and educational association dedicated to managing and treating water
- ◆ Founded in 1881
- ◆ 50,000+ members, including > 4,000 utilities
- ◆ 180 existing standards;
30+ standards in development
- ◆ Dedicated to the World's Most Important Resource



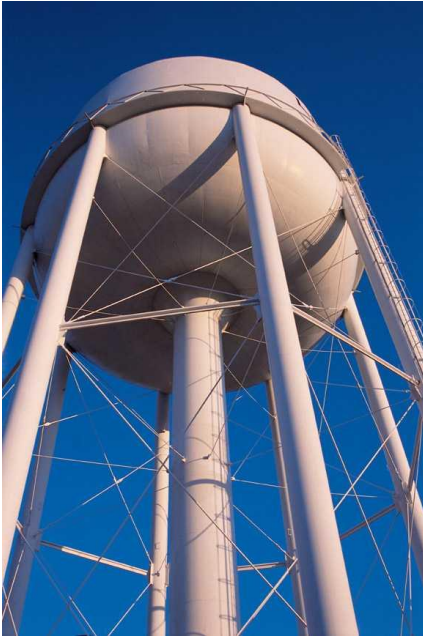


**AWWA-India Office
Mumbai, India**

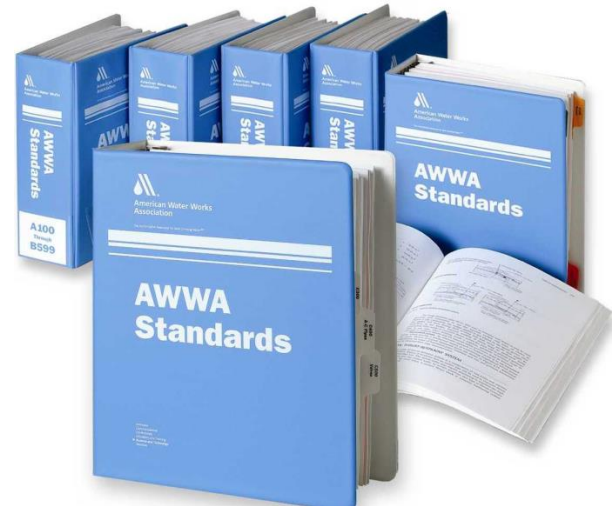


- **AWWA-India Staff & Strategic Board**
- **Membership of > 250 and growing**
- **Conducted trainings sessions in Mumbai, New Delhi, & Hyderabad**
- **Planning second annual conference (AICE '18) for November 16-17, 2018 in Hyderabad**

Categories of AWWA Standards



- Water treatment products
- Water distribution system products
- Water wells
- Services
- Utility management



AWWA Standards Topics by Category

Water Treatment Products

- Filtration materials and systems
- Softening agents
- Disinfection chemicals
- Coagulation
- Scale and corrosion control
- Taste and odor control
- Prophylaxis
- Treatment plant equipment



AWWA Standards Topics by Category

Water Distribution System Products

- Pipe and accessories, including ductile iron pipe, steel pipe, concrete pressure pipe, plastic pipe (polyethylene pipe and polyvinyl chloride pipe), and asbestos-cement pressure pipe
- Valves
- Fire hydrants
- Meters
- Service lines
- Storage facilities, including steel tanks, concrete tanks, composite elevated tanks, and fiberglass-reinforced plastic tanks
- Pumps



AWWA Standards Topics by Category

Water Wells

- Water Wells

Services

- Pipe installation
- Disinfection of facilities— treatment plants, water mains, wells, storage tanks



AWWA Standards Topics by Category

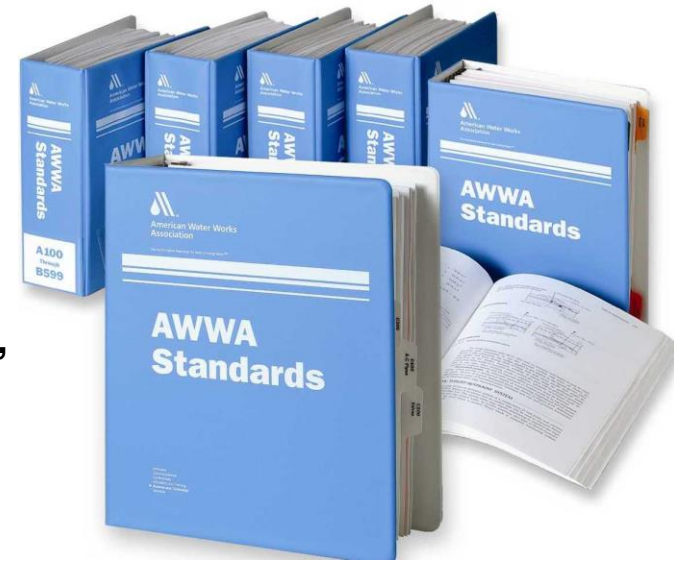
Utility Management

- Water Treatment Plant Operation & Management
- Distribution Systems Operation & Management
- Source Water Protection
- Business Practices for Operation & Management
- Communications and Customer Relations
- Security Practices for Operation & Management
- Emergency Preparedness Practices
- Water Conservation Program Operation & Management
- Reclaimed Water Program Operation & Management
- Wastewater Treatment Plant Operation & Management
- Collection System Operations
- Risk Management of Water and Wastewater Systems
- Direct Potable Reuse
- Indirect Potable Reuse (in development)
- Wastewater Biosolids Handling and Management (in development)
- Wastewater Pretreatment Programs Management (in development)
- Sustainable Water Environment Operation & Management (in development)



Understanding and Using AWWA Standards

- **MINIMUM** requirements for design, installation, performance, and manufacture
- **NOT** specifications
 - Standards can be the basis for a specification, but site specific criteria must be added and the purchaser options selected to complete a specification
- **Standards serve as an aid to, not a substitute for, engineering expertise and judgment**
- **AWWA standards are not endorsements of any product, service, or company**
- **AWWA does not test, certify, or approve any product.**
- **Voluntarily used (not legal regulations)**
- **Water Industry Consensus (North America)**
- **AWWA Standards provide for validation criteria in the form of an “Affidavit of Compliance”.**
- **Designing a system using AWWA standards leads to simplified designs and construction, and cost efficiency**





- **AWWA Standards Program is accredited by the American National Standards Institute (ANSI)**
- **ANSI audit of AWWA process every 5 years**
- **Each AWWA standard is approved as an ANSI/AWWA Standard**



Core Principles of Standards Development



- Representation by a balance of stakeholders – Users (typically the water utility), Producers, and General Interest members. Producer representation cannot exceed one-third of the total voting membership.
- Due process principles of Openness, Lack of dominance, Balance of interests, Coordination and harmonization, Notification of standards development, Consideration of views and objections, Consensus vote, Appeals, and Written procedures.



Standards Development Process

1. Request for standard by any interested party
2. Standards Council authorizes development & assigns the standard to a committee.
3. Committee develops and approves a draft of the Standard
4. Standards Council approves the draft Standard.
5. Standard is announced for public review & comment
6. All comments are addressed & final document approved
7. Standard approved by Board of Directors
8. Standard reviewed and approved by ANSI



Get involved!

- **Volunteer for a standards committee**
- **Participate through the public comment process**



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