

ASCE's Standards Development Program

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General Hierarchy of Documents

- Article - 1 person's opinion
- Journal article - reviewed by peers
- Manual/Report - committee opinion + oversight group
- Standard & Guideline- all of the above plus!

Definition: Standard

- A **standard** is a prescribed set of rules, conditions, or requirements for the purpose of institutionalizing practices and procedures. Only when developed in accordance with definitive rules of procedure and consensus does a standard obtain the necessary stature for regulatory use.

General Types of Standards

- Material properties
- Test methods
- Design methods
- Construction practices
- Management practices

ASCE's Standards Program

- Originated in the late 1800's
- Reaccredited by ANSI
- Over 40 Committees today
- About 5000 participants
- SEI, G-I, EWRI, CI, COPRI, AEI, T&DI and others (?) involved



Organizational Structure

- Codes and Standards Committee (CSC)
 - Oversees program
 - Verifies adherence to procedures
 - Maintains ANSI Accreditation
 - Comprised of representatives from each standards council of the Society

Starting a new Activity

- Proposal must include:
 - Rationale for standard
 - Potential members
 - Proposed scope/purpose
 - Potential chair
 - Affected parties/organizations

Get the Committee Organized

- Forming the Standards Committee
 - Applications received
 - Members and non-members of ASCE
 - First come - first serve
 - Minimum size: 12 people
 - Must be balanced and not dominated
 - Removal for cause or non-participation

Standards Committee

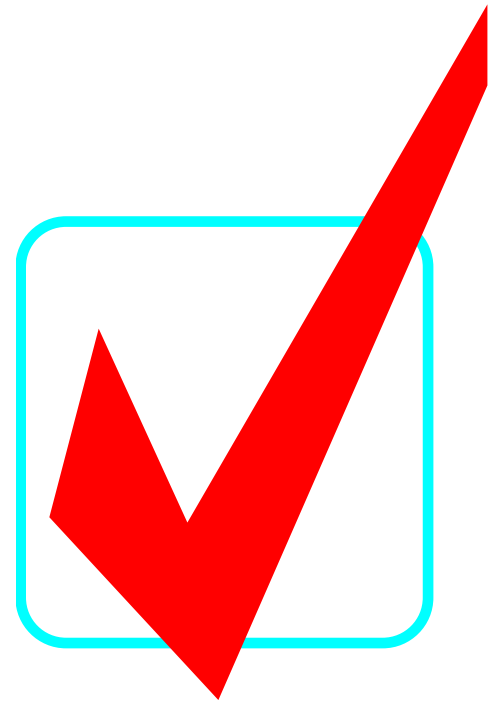
- Standards Committee is the “consensus body”
- Composition of committees
 - 20 to 40% Producers
 - 20 to 40% Consumers
 - 20 to 40% General Interest
 - 5 to 15% Regulatory
- No more than 2 people from any one company, organization, or representation

First steps

- Draft pre-standard developed
 - Volunteers
 - Grant
 - Contract
- Sources of information include:
 - Research papers
 - Guidance documents
 - Articles
 - Manuals of practice
 - Individual experience

ASCE's Process

- Committee votes to start balloting
- Letter ballot to all committee members
- 30 day minimum ballot period
- Votes counted and comments compiled



ASCE's Process

- Options: Affirm, Affirm w/ Comment, Negative, or Abstain
- Consensus on an item requires:
 - 2/3rd's of Committee must return ballot
 - 75% of votes must vote "affirm" or "affirm w/ comment"
 - Rule: minimum of 50% affirm

ASCE's Process

- Resolution of comments: **Affirm w/ C**
 - By definition the comments are editorial
 - Resolution at discretion of Chair
 - Accept - Editorial: Committee notified
 - Accept - Substantive: Letter ballot of Committee.

ASCE's Process

- Resolution of Comments: **Negative**
 - Persuasive - Editorial: Committee (Cte) notified
 - Persuasive - Substantive: Letter ballot of Cte.
 - Non-Persuasive - Editorial: Committee notified
 - Non-Persuasive - Substantive: Letter ballot of Cte.
 - Withdrawn by voter
 - Previously considered or Invalid

ASCE's Process

- Requirements of a Negative Comment
 - Comments submitted with negative votes must contain both an explanation for the negative vote and a revision to the standard which will resolve the negative vote.
 - Comments with negative votes failing to meet this requirement may be declared invalid.

ASCE's Process

- Letter ballots of the committee continue until all comments are resolved.
- It is the committee (consensus body) which finds comments not persuasive
- Consensus does not equal unanimity

Beyond the Committee!

- Report prepared to Executive Committee and CSC demonstrating Rules have been followed.
- Public Comment Period authorized - votes are not tabulated
- 45 day minimum comment period

Beyond the committee!

- Public comment period
 - Press Releases
 - Article in ASCE News (139,000 members)
 - Notification to ANSI
- Comments resolved same as committee comments
- If substantive change occurs... Another public comment period is held.

Final Steps!

- Public voters are notified on resolution of their comments and right to appeal procedure
- Oversight group reviews all procedures
- Publish the standard by ASCE and/or ANSI
- Move it to general practice typically through its adoption by model codes

START ALL OVER AGAIN!

- Rules require revision or reaffirmation every 5-10 years
- Bring lessons learned from events into the standards and then into practice
- Improve clarity of requirements

Atmospheric Water Management

Purpose: To develop standards for atmospheric water management in the areas of precipitation enhancement, fog dispersal, and hail suppression for adoption by states and provinces for regulatory purposes.

Current Projects: Published ASCE/EWRI 39-15 & ANSI/ASCE/ EWRI 44-13. Revising 42-04, co-editors are finalizing MOP #81.

Typically Meets with WMA groups: TBD

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Significant ASCE Standards

<u>PUBLICATION</u>	<u>CONTACT</u>	<u>SCHEDULED</u> <u>PUB DATE</u>	<u>INFORMATION</u>
Publication	Contact Name	MM/YY	Notes
EWRI/ASCE STANDARD 39-15 : STANDARD PRACTICE FOR THE DESIGN & OPERATION OF HAIL SUPPRESSION PROJECTS	Darin Laugerud (Ch & Corresponding Editor)	Publication being completed	Revised DOCUMENT - had third committee ballot & ASCE public comments approved in 2014. Published in 2015.
ASCE/EWRI STANDARD 42-04 : PRACTICE FOR THE DESIGN & OPERATION OF PRECIPITATION ENHANCEMENT PROJECTS .	Tom DeFelice (Ch)	Publication under review	Balloting started in 2014.
ANSI/ASCE/EWRI STANDARD 44-13 : STANDARD PRACTICE FOR THE DESIGN & OPERATION OF FOG DISPERSAL PROJECTS	Tom DeFelice (Ed) and Darin Laugerud (Ch)	Publication Completed in 2013	DOCUMENT published in late 2013.
ASCE/EWRI Manual 81 : Guidelines for Cloud Seeding to Augment Precipitation, 3rd Edition	Conrad Keyes, Jr. (Chief Editor)	Publication to ASCE Publisher	Semi-consensus pub process started in 2013 and to the final ASCE/EWRI Publisher in March 2015.

Update of Atmospheric Water Management Docs – 2017 (?)

- Is more Research Needed (HS, PE, or FD?)
- When is Standard Practice changed?
- Are there New Developments of Equipment?
- What about Evaluation of Projects?
- Proposed Upgrades from Anyone?
- Is there interest in a SP on Warm Fog Dispersal, Hygroscopic seeding?
- Is there interest in a SP to estimate wind speeds in tornadoes?