What is an American National Standard (ANS) anyway?
And how can I participate in the ANS development process?

Anne Caldas - Senior Director, Procedures & Standards Administration
A review of the basics

- What is a standard?
- A bit about the U.S. Standards System
- What is ANSI? For more: www.ansi.org/WhatIsANSI?
- Why do standards matter and who creates them?
- What are American National Standards (ANS)?
  - What requirements apply to the ANS consensus process?
  - Who develops ANS?
  - How can you participate in the development of ANS?
- Where to learn more/training: www.standardslearn.org
- Standards Boost Business: over 30 partners working together on this campaign. SBB concepts are woven throughout this webinar www.standardsboostbusiness.org
So let’s get started with some context relevant to today’s focus...
What is a standard? A VCS? An ANS?

- **Standard**: a document that tells you how to do or say or make or test or organize or design something

  - **Voluntary Consensus Standard (VCS)**: a private sector standard developed in a specifically defined open and fair environment with general agreement by stakeholders (OMB A-119, NTTAA) see [https://www.nist.gov/standardsgov/what-we-do/federal-policy-standards/key-federal-directives](https://www.nist.gov/standardsgov/what-we-do/federal-policy-standards/key-federal-directives)

  - **American National Standard (ANS)**: a VCS developed in accordance with the “ANSI Essential Requirements: Due process requirements for American National Standards” and subject to ANSI’s unique: 1) accreditation of consensus procedures; 2) neutral oversight; 3) approval process; 4) appeals process; and 5) procedural audit.

  * Simplified definition
Definition of VCS from OMB Circular A-119

What Are Voluntary, Consensus Standards?

- “Voluntary consensus standard” is a type of standard developed or adopted by voluntary consensus standards bodies, through the use of a voluntary consensus standards development process as described in Section 2e. These bodies often have intellectual property rights (IPR) policies that include provisions requiring that owners of relevant patented technology incorporated into a standard make that intellectual property available to implementers of the standard on non-discriminatory and royalty-free or reasonable royalty terms (and to bind subsequent owners of standards essential patents to the same terms). In order to qualify as a “voluntary consensus standard” for the purposes of this Circular, a standard that includes patented technology needs to be governed by such policies, which should be easily accessible, set out clear rules governing the disclosure and licensing of the relevant intellectual property, and take into account the interests of all stakeholders, including the IPR holders and those seeking to implement the standard.
Definition of VCS Body
OMB Circular A-119

e. “Voluntary consensus standards body” is a type of association, organization, or technical society that plans, develops, establishes, or coordinates voluntary consensus standards using a voluntary consensus standards development process that includes the following attributes or elements:

(i) Openness: The procedures or processes used are open to interested parties. Such parties are provided meaningful opportunities to participate in standards development on a non-discriminatory basis. The procedures or processes for participating in standards development and for developing the standard are transparent.

(ii) Balance: The standards development process should be balanced. Specifically, there should be meaningful involvement from a broad range of parties, with no single interest dominating the decision-making.

(iii) Due process: Due process shall include documented and publically available policies and procedures, adequate notice of meetings and standards development, sufficient time to review drafts and prepare views and objections, access to views and objections of other participants, and a fair and impartial process for resolving conflicting views.

(iv) Appeals process: An appeals process shall be available for the impartial handling of procedural appeals.

(v) Consensus: Consensus is defined as general agreement, but not necessarily unanimity. During the development of consensus, comments and objections are considered using fair, impartial, open, and transparent processes.
Let’s briefly review some background about standards development...
U.S. approach to standards development is different from that of many other countries

Many other economies
*Top Down*
Standards bodies drive standardization activities

Approach in the United States
*Bottom Up*
Standards users drive standardization activities
Let’s look at some key actors in standards development in the U.S.

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<th>ANSI Standards Developers*</th>
<th>Companies Stakeholders</th>
<th>Consumers ...</th>
<th>Government ...</th>
<th>NIST</th>
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<td>Coordinates U.S. system and policy development</td>
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ANSI Guidance - ANS and Participation
Let’s take a minute now to review ANSI’s roles...

- **ANSI** coordinates standards, conformity assessment, and related activities in the United States of America.
  - Founded in 1918, ANSI is a private, not-for-profit organization (501(c)3)
  - ANSI is not a government agency, standards developer or certifier

- **ANSI’s mission** is to enhance the global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and ensuring their integrity.
ANSI represents the U.S. globally
- ISO, IEC, Regional (next slide)

Accredits standards developers and conformity assessment bodies
- Ensures the integrity of related systems

Approves Voluntary Consensus Standards (VCS) as ANSI (more on this soon)

Offers neutral forum to address issues of national importance

Coordinates partnerships between U.S. public and private sectors
- In support of standards-based solutions
- U.S. national body member to the ISO (International Organization for Standardization [www.iso.ch](http://www.iso.ch))
- U.S. national body member to the IEC (International Electrotechnical Commission [www.iec.ch](http://www.iec.ch)) via the U.S. National Committee
- A U.S. member of IAF and ILAC (International Conformity Assessment)
- Member of regional forums in the Pacific Rim and the Americas
- Liaison with groups in Europe, Africa and the Middle East
- Bilateral agreements with other national standards and conformity assessment bodies
As the bridge between public-sector policies and private-sector solutions, ANSI has a vital role to play in strengthening U.S. competitiveness and quality of life.

Let’s look at some examples...
Now let’s narrow our focus to ANSI’s role as an Accreditor and what this means in the standards world...
ANSI as an “Accreditor”

- ANSI accredits standards developers and through ANAB, conformity assessment bodies - certifiers of products, people and systems
  - ANSI is not a standards developer or certifier
- To clarify, in a nutshell, “Conformity Assessment” relates to:
  - An activity concerned with determining directly or indirectly that relevant requirements (including specified standards) are fulfilled (see ISO/IEC 17000:2004)
  - For example, a label on a product might make a statement of conformance with a standard: x satisfies the requirements of standard: ANSI/ABC 1-2013 How to build a widget
ANSI as an “Accreditor” of standards developers

- Accreditation by ANSI as a standards developer is a pre-condition for submitting a standard for approval as an ANS

- ANSI accreditation as a standards developer is based on a defined process that is overseen by neutral standards experts who are ANSI Members

- Open Process: Application, public review & comment, approval of compliant consensus procedures, appeal, reaccreditation when procedures are revised, annual compliance certification, audit of ANS
Accreditation as a Standards Developer: for American National Standards (ANS)

At ANSI:

- Accreditation as a standards developer relates to the procedures used in relation to American National Standards (ANS) only.
- Accreditation means that a standards developer’s procedures with respect to ANS meet the due process based criteria established in the “ANSI Essential Requirements”.
- Once accredited, a standards developer uses those procedures to develop evidence of consensus with respect to the content of a proposed ANS.
Let’s remind ourselves why all standards are important...
Why are standards important?

- Standards facilitate trade, commerce, and innovation
- Standards help to advance scientific discovery and keep people safe by minimizing injuries and protecting key environmental resources
- Standards reduce costs in the public and private sectors
- Standards support interoperability in all areas of life
- Standards make everyday life and the economy work, for example:
  - Product standards: banking cards, washing machines
  - Safety standards: lifejackets, eyewear, boiler pressure vessel code, national electrical code
  - Performance standards: food and toy safety
  - Prescriptive & performance standards (some can be both): indoor air quality
  - Management systems standards: quality, environmental & energy management
  - Personnel standards: food handlers, crane operators, welders
  - Built environment standards: plumbing and building codes
  - ICT standards: underpin almost everything
Who creates standards?

- Companies, government, consortia and other standards developers, like trade associations, create standards (domestic and international):
  - some are for limited or internal use, e.g., in a company or within a government agency
  - some are produced for broader use
  - some are created as voluntary consensus standards (VCS)
    - an American National Standard (ANS) is a voluntary consensus standard
      - Unless mandated by law, compliance is voluntary

- In the US, the standards process is market driven, sector based, industry led, and government supported
  - All materially affected and interested stakeholders, including consumers and the general public, have a voice in the ANS process
Let’s focus on:
American National Standards (ANS)

- 240 ANSI-accredited standards developers (ASD) [www.ansi.org/asd](http://www.ansi.org/asd)
  - *ANSI Essential Requirements: due process requirements for American National Standards* ([www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements))
    - “ANSI Essential Requirements” governs ANS process
  - Only ASDs may submit standards for approval as ANS
    - Accreditation by ANSI is a pre-condition for submitting a standard for approval as an ANS
    - All ANS are maintained on a regular cycle to ensure currency
  - Approximately 11,500 American National Standards
  - All ASDs are subject to ANSI’s neutral third-party oversight including a regular procedural audit
    - Not all standards developed by these organizations are approved as ANS

- Learn more: [www.ansi.org/ansvalue](http://www.ansi.org/ansvalue)
Where can I find ANS information?

www.ansi.org/asd

- List of ANSI-Accredited Standards Developers (ASD) with a scope and contact

- List of proposed ANS
  - See ANSI Standards Action for open public comment opportunities (www.ansi.org/StandardsAction)

- List of approved ANS
Who makes decisions about ANS actions?

3 main committees populated by ANSI members:

- ANSI Executive Standards Council (ExSC)
- ANSI Board of Standards Review (BSR)
- ANSI Appeals Board
  - All serve as neutral, knowledgeable professionals
    - Oversight role is subject to conflict of interest procedures
What is ANSI’s role in the ANS process?
ANSI Members/Program Oversight Committees

- Oversee the integrity of the ANS consensus process by assessing evidence of procedural compliance with ANSI’s *Essential Requirements*
- Accredit (and reaccredit) standards developers (procedures)
- Approve individual standards as American National Standards (ANS)
- Audit ANS for procedural compliance
- Hear procedural appeals related to ANS
  - Were procedures followed?
  - Was a comment afforded due process?
  - Is a developer in compliance with ANSI’s requirements?
- Consider whether an ANS designation should be withdrawn for cause (at any time)
- Maintain and revise the procedures that govern the ANS process
Let’s take a quick look at the “ANSI Essential Requirements: Due process requirements for American National Standards”
All ASDs are bound by the ANSI Essential Requirements and their ANSI-Accredited Procedures.

Broad flexibility in consensus process models used by ASDs, some variables:

- Layers of review and approval
- Numerical requirements
- Votes at meetings or via ballot
- In-person meetings, webinars, teleconference, mail/hard copy
- Concurrent or sequential steps
- Use of electronic systems to support the consensus process
- Starting with a draft or from scratch
  - Any document that is not yet an “ANS” is “draft” or “proposed”
Overarching Consideration of ANS

Process: Due Process

- Due process means that any person (organization, company, government agency, individual, etc.) with a direct and material interest has a right to participate by:
  - expressing a position and its basis
  - having that position considered
  - appealing if adversely affected

- Due process allows for equity and fair play
  - Fairness and consistency are safeguards
ANSI Essential Requirements - Criteria for ANS consensus

- ANSI’s *Essential Requirements* (see clauses 1.0 & 2.0)
  - Openness
  - Lack of dominance
  - Balance
  - Coordination and harmonization
  - Notification of standards development
  - Consideration of views and objections
  - Consensus vote
  - Procedural appeals
  - Written procedures
All ASDs and accredited procedures must comply with ANSI’s requirements related to:

- ANSI Patent Policy (3.1)
- Commercial terms & conditions (3.2)
- Antitrust policy (3.3)
- ANS record retention/evidence of compliance (3.4)
- Metric policy (3.5)
- Interpretations policy (3.6)
- Publication (4.4) & maintenance requirements (4.7)
What rules apply to the ANS process?

In addition to the *ANSI Essential Requirements*:

- The Standards Developer’s ANSI-accredited procedures
  - Often available from ASD’s website (*must be available*)
  - Provide the details of processes related to public notice, voting, comment consideration, appeals, etc.
  - ANS consensus body participation requirements
- Standards Developer’s electronic tools: requiring use of online systems or specific forms/formats is acceptable
- Membership application, code of conduct, etc.
- Typical default when procedures are silent: *Roberts Rules of Order*
What does the ANSI development process entail?

2 summary views follow
ANS Development Cycle - Routine

1. Project Initiation Notification (PINS) & Stakeholder Deliberation if Claim of Conflict or Duplication
2. Development of a Draft American National Standard
   - Public Review Period (30 or 45 or 60 day Announcement in Standard Action)
   - Consensus Ballot (Formal Ballot of Consensus Body)
3. Vote, Comment Resolution and Written Response (Recirculation and Second Announcement, if necessary)
4. Conclusion of Appeals, Consensus Reached & Submittal to the ANSI Board of Standards Review
5. Approved (or not) by the ANSI Board of Standards Review (or ANSI ExSC for Audited Designators)
6. Right to Appeal ANSI BSR or ANSI ExSC, then to ANSI Appeals Board

IDEAS

COMMENTS

VOTE

ANSI Guidance - ANS and Participation
Slide 33
ANS Key Steps

www.ansi.org/anskeysteps
ANSI recognizes “multiple paths” to standards development

- Not every standard needs to be an ANS, but this presentation highlights the basis for the credibility, integrity and confidence an ANS designation reflects
Approval as an American National Standards (ANS)

- Approval as an American National Standard (ANS)
  - Means the sponsoring standards developer VOLUNTARILY subjects a standard to ANSI’s
    - Neutral oversight and approval process
    - Public notice and comment requirements
    - Document maintenance requirements - documents are current, regular review required
    - Appeals process: time-tested, credible and fair procedural review
    - Procedural audit process, which addresses the integrity and the “plumbing” of the consensus process
  - Short-hand for compliance with OMB A-119 and the NTTAA
Standards that hold the ANS status are used globally too

- When they meet an international marketplace need
- Because the procedures used to develop ANS meet globally accepted criteria
  - ANS designation indicates compliance with WTO criteria for openness, transparency, impartiality and consensus, relevance and effectiveness
  - ANS serve as the basis for many ISO, IEC or other international standards
  - Many ISO, IEC and ISO/IEC JTC 1 standards are adopted as ANS
Recap...and then, how to participate...
US Standards System Model: Strength through Diversity

- “Standards are the building blocks for innovation and competitiveness”
- No matter the challenge, solutions cannot be developed in a vacuum
- The robust U.S. standards and conformance systems are a powerful example of how a consensus-based public-private partnership can work to develop concrete solutions to real-world problems
  - For Consumers
  - For Companies
  - For Organizations
  - For Government
American National Standards - Hallmarks of the ANS process matter

- Integrity and inclusiveness of the ANS process result in high quality standards that help to protect the public interest and foster commerce

- ANS designation indicates market and stakeholder recognition and acceptance: “quality”

- ANS designation = open, credible and fair process with respect to an individual standard

- ANS process provides potential legal safeguards: avoid antitrust and tort liability issues (see www.standardslearn.org for “Legal issues in standards setting”)
American National Standards -
Why they matter...

- Standards address important topics; users and the public should have confidence that they are based on a consensus of views arrived at through a fair and open process.
- Consistent with our democratic principles, i.e., everyone who chooses to participate can have a voice.
- Consensus and comment consideration in a due process based (fair) environment lead to standards that will be better accepted and more widely used.
- ANSI’s oversight is unique: ASDs - who voluntarily participate - are subject to regular review and procedural audit by ANSI.
- ANS = short-hand that the consensus process satisfies the Federal Government’s definition of voluntary consensus standard (VCS).
So how can I participate?

- On almost any given day, a standards group or technical committee (consensus body) is meeting and making decisions that could affect the bottom line of our national economy, safety, innovation - and your organization.

Shouldn’t you be involved?
Let’s review some tools and data that will help you decide where you need to be represented...
How to ID the sponsor of the ANS?

- Identify the standard(s) via the unique alpha-numeric designation, e.g., ANSI/ABC 123-2013
  - Not all ANS include “ANSI” in the designation
  - All ANS are labeled on the cover or front matter
    - “an American National Standard” or use the ANS logo

- Designations frequently include the acronym of the ASD: e.g., ASHRAE, ASME, AWWA, NFPA, UL, IAPMO, INCITS, ASTM, NSF, NEMA, IEEE, ASIS, IESNA, CSA, ATIS, ISEA, API, SCTE, Acoustical Society of America (ASC S1, S12, etc.)...

  [www.ansi.org/asd](http://www.ansi.org/asd)

- Visit [www.ansi.org/asd](http://www.ansi.org/asd) to identify standards that are or are intended to become ANS
  - “BSR” in the designation of a standard on ANSI’s website, indicates that the standard is proposed as an ANS, but not yet approved as such
ANSI-Accredited Standards Developers

- List of ANSI-Accredited Standards Developers with a scope and contact for each:

  www.ansi.org/asd
How to search for ANS?

- [www.ansi.org/asd](http://www.ansi.org/asd)
  - Contact an ASD directly, identify an ANS or proposed ANS

- [www.ansi.org/StandardsAction](http://www.ansi.org/StandardsAction)
  - Published every Friday & it’s free
  - Open public comment opportunities, recently approved ANS

- [http://ibr.ansi.org/](http://ibr.ansi.org/)
  - ANSI IBR Portal
  - Posting of some standards referenced in regulations or urls to link to developer sites

- [http://webstore.ansi.org](http://webstore.ansi.org)
  - ANSI Webstore
  - many ANS available for sale

- ANS questions, E-mail: psa@ansi.org
How to participate?

- Apply for membership on the ANS consensus body (voting group): apply to the ASD directly
  - Some ASDs also offer participation on a sub-group
  - Reasonable fees for participation may apply (fees vary)
- Submit public review comments **during an open ANSI public review period** ([www.ansi.org/standardsaction](http://www.ansi.org/standardsaction)):
  - submit comments to the ASD directly and copy psa@ansi.org
  - many ASDs charge a fee to obtain a copy of a draft to defray development and production costs
  - electronic submittal of public comments may be required in a specific format or via an online system
  - comment deadline dates apply and are enforced
How to participate?

- Submit proposal to develop an ANS or revise an existing ANS
  - Submit to the ASD in accordance with its procedures
- Research other options that may be available through the ASD including:
  - Informational member
  - Liaison, Affiliate, etc.
  - Working group or task group or drafting group participation, etc. (contributor, but non-voting option)
ANS Participation tips...

- Review and familiarize yourself with the *ANSI Essential Requirements* ([www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements))

- Obtain a copy of the ANSI-Accredited Standards Developer’s (ASD) accredited procedures
  - Check online or contact the ASD staff

- Review the sponsoring ASD’s website ([websites are included at www.ansi.org/asd](http://www.ansi.org/asd))

- Identify a staff person/E-mail at the developer who is able to serve as a resource, e.g., “committee secretary”
ANS Participation tips...

- Review ANSI Standards Action (www.ansi.org/standardsaction) each Friday to see what standards are open for review

- Understand which portions of a standard are under review (not always the entire document)

- Adhere to **deadlines** and **formatting requirements** to ensure that your comments are properly received and considered
  - *When a public comment/public review period is announced, deadlines for commenting are specified and enforced!*
ANS Participation tips...

- Participate in good faith
- Submit public comments during open comment periods
- If you are a voting member, submit votes by established deadlines
  - Respond to ballots per ASD’s instructions
- If you have a concern, speak with ASD staff to understand your rights to informal dispute resolution options and appeals rights
  - all ASDs offer a procedural appeals option
  - to preserve your right to appeal to ANSI concerning a specific ANS, you must conclude the procedural appeals process at the ASD first
- For information about ANSI’s appeals options, go to www.ansi.org/ASD for guidance documents or psa@ansi.org
Interested in working together as part of a public-private partnership to develop standards based solutions to all kinds of challenges?
Consider joining ANSI...

- Support a strong U.S. public-private partnership
- Network with strategic thinkers
- Contribute to solutions for standardization and conformity assessment issues of national importance
- Learn more about standards and conformity assessment and how they influence trade and the public interest every day
- Gain exposure to standardization and conformity assessment issues that affect trade, business, consumer protection, the environment, and everyday life - domestic & international

- membership@ansi.org or www.ansi.org/membership
ANSI Engagement Vehicles

Accreditation
- Standards Developers
- U.S. Technical Advisory Groups to ISO
- Product Certification Bodies
- Personnel Certification Bodies
- Management Systems Registrars
- Inspection Bodies and Laboratories
- Greenhouse Gas Verification Bodies
- Certificate Programs

Coordination Activities
- Standardization Coordination / Collaboratives
- Member Forums / Issues-based Meetings
- Workshops and Networks

International Connectivity & Policy
- International Trade Policy
- Advocacy and Business Facilitation
- Secretariat and US/TAG Management
- ISO & IEC P Membership Support
- Regional and Bilateral Activities in Asia Pacific / Americas / Europe / Africa
- China Programs
- International Development Activities
- International Consumer Interest Activities

Legal Issues
- Intellectual Property Rights (IPR)
- Patents
- Copyrights
- Legal Issues Forum

Government Outreach and Relations
- Congressional Presentations
- Legislative Issues Monitoring
- ANSI Caucus Meetings
- Joint ICSP/GMF Meetings
- IBR Standards Portal

Sales, Marketing and Distribution
- Retail & Subscription Publications Sales
- Advertising, Marketing & Distribution
- Social Media & Networking Activities
- Digital Rights Management (DRM) Solutions
- Customized Partner Solutions

Editorial and Publishing Services

Education and Training
- Instructor Led on-site Training
- Online and Webinar Training

Registration Programs
Helpful Resources

- ANSI Essential Requirements: [www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)
- List of approved ANS and proposed ANS: [www.ansi.org/asd](http://www.ansi.org/asd)
- Summary of ANS process steps: [www.ansi.org/anskeysteps](http://www.ansi.org/anskeysteps)
- List of ANSI-Accredited Standards Developers: [www.ansi.org/asd](http://www.ansi.org/asd)
- ANS Value Brochure: [www.ansi.org/ansvalue](http://www.ansi.org/ansvalue)
- ANSI Standards Action (weekly information about proposed and approved ANS): [www.ansi.org/standardsaction](http://www.ansi.org/standardsaction)
- Standards Boost Business: [www.standardsboostbusiness.org](http://www.standardsboostbusiness.org)
- Online and in-person training options: [www.standardslearn.org](http://www.standardslearn.org)
- Staff are available via psa@ansi.org
Some closing thoughts...
ANSI and the US Standards System...

- A public-private partnership developing strategies and standards-based solutions for a strong nation and a safer, healthier world...
  - STRENGTH - openness, fairness and diversity make the US standards system strong
  - INNOVATION - standards spur and support innovation
  - ACTION - standards are responsive to human and market needs
  - GROWTH - standards facilitate economic growth and keep us competitive
  - PRODUCTIVITY - standards promote and support productivity
  - SOLUTIONS - standards-based solutions address issues of national, regional and international importance
  - PARTNERSHIP - everyone has a voice and all are welcome
  - COLLABORATION - stakeholders work together to develop solutions
We hope that you will decide to participate in standards development and be part of the solutions being developed every day...
Thanks so much for your interest...please keep my contact information if ANSI can help you or your organization...