



# Involving Consumers in Standardization

Jim McCabe Senior Director, Consumer Relations and IDSP

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#### The U.S. Standardization Model A Unique Approach Among Many in the World

- resembles the nation's governmental (federal) structure
- resembles the nation's economic structure
  > sector-based and driven by market needs
- relies strongly on diversity and decentralization



# Most standards are developed and used on a <u>voluntary</u> basis

- Most standards are developed by technical committees formed within the private sector
- Government and industry representatives participate as "equal partners" in many of these technical committees
- Costs are borne by the participants



#### **Voluntary vs. Mandatory**

#### "Voluntary Standards" become mandatory only when:

- > They are incorporated into contracts; or
- They are referenced or adopted by government agencies as part of a regulation to protect public health, safety, and the environment.
- "Voluntary" and "Mandatory" are terms of Conformity Assessment (i.e. the mechanism chosen to ensure compliance to a particular standard)



### Structure of the U.S. Standardization System

#### ANSI – Coordinator of the Private Sector

- > Private sector, non-profit, membership organization
- Supported by sale of publications, membership fees, funded programs and periodic government grants

#### Standards Developing Organizations (SDOs)

- > Private trade and professional organizations, often non-profit
- Some, but not all, accredited by ANSI
- NIST (National Institute of Standards & Technology US Department of Commerce)
  - Coordinates the standards activities of Federal government agencies
  - Sets Legal Metrology Standards; Accredits Laboratories



### **American National Standards Institute (ANSI)**

The ANSI Federation represents more than **125,000 companies and organizations** and **3.5 million professionals** worldwide.

Members of the ANSI Federation include . . .

- Academia
- Individuals
- Government
- Manufacturing
- Trade Associations

- Professional Societies
- Service Organizations
- Standards Developers
- Consumer and Labor Interests
- and many more

A Private- and Public-Sector Partnership Since 1918

#### ANSI is not a government agency or a standards developer.



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#### **ANSI's Roles and Responsibilities**

- Accreditation Services. ANSI Accredits:
  - > U.S. Standards Developing Organizations (SDOs) and Technical Advisory Groups (TAGs) to ISO
  - Product and Personnel Certification Bodies
  - Management Systems Registrars
  - Inspection Bodies and Laboratories
  - Greenhouse gas validation/verification bodies
  - Certificate Programs
- Approves American National Standards (ANSs)
- Ensures integrity of the U.S. voluntary consensus standards system
- Protects the public's participation in standardization activities
- Offers a <u>neutral</u> policy forum
- Provides access to international and regional standards bodies
- Serves as a central resource for information and education on standards, conformity assessment and related activities



# **ANSI's Role in the ANS Process**



- ANSI serves as a facilitator, providing an infrastructure and process by which proposed American National Standards (ANS) may be vetted
  - > ANSI is an *accreditor* of standards developers
  - Standards developers choose to be accredited (and audited) by ANSI
  - > ANSI-Accredited Standards Developers choose which standards are submitted for consideration for approval as an ANS
- ANSI's role is to safeguard the integrity of this system, which by design, is based on a private-public partnership that is driven by the needs of the range of markets in this country and by the public interest

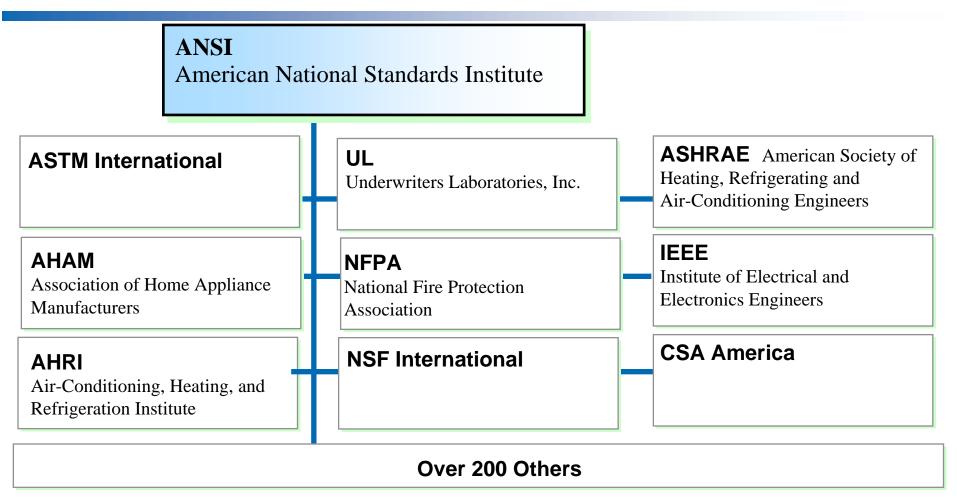


### ANSI's Role in the ANS Process (continued)

- ANSI's role in the standards development process is a procedural, not technical one
- ANSI does not determine whether a proposed project merits vetting
  - once announced, a proposed project will succeed or not, based on participation by materially affected interests – either via voting membership on a consensus body or by the submission of public comments
- Approval of a standard as an ANS indicates procedural compliance, based on evidence provided by the Accredited Standards Developer (ASD)



#### **ANSI Accredited Standards Developers**





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#### **The Role of Government Agencies**

- In the U.S., **no** single government agency has control over standards
- Each government agency determines which standards meet its needs
- An agency is responsible for determining whether a private sector standard already exists that is appropriate for its needs
  - > If so, the agency will use the private sector standard
  - If not, the agency is expected to work with the private sector to develop the needed standards, and will reference them in its regulations (in accordance with the National Technology Transfer and Advancement Act - NTTAA)
  - Agencies creating their own standards must report to Congress on an annual basis the justifications for doing so



# Case Study - U.S. Consumer Product Safety Commission (CPSC)

- Federal government agency charged with regulating most consumer products
- In most cases, CPSC relies on industry use of voluntary standards rather than issuing mandatory standards, provided:
  - the voluntary standard would eliminate or adequately reduce the risk of injury; and
  - > it is likely that there will be substantial compliance with the voluntary standard
- CPSC may develop standards if it finds an unreasonable risk of injury associated with a consumer product
- May ban a product if there is no feasible consumer product safety standard
- May pursue recalls for products that present a substantial product hazard
- Provides technical support to the development of voluntary safety standards



### ANSI International Interaction (Standardization)

- ANSI serves as the official U.S. member and sets policy for U.S. participation in the
  - International Organization for Standardization (ISO)
  - International Electrotechnical Commission (IEC) via the U.S. National Committee of IEC
- IEC.
- U.S. technical positions for ISO and IEC activities are developed by Technical Advisory Groups (U.S. TAGs) ("mirror committees")
  - Allows all affected parties (including U.S. government) to participate in standardization activities



### **ANSI Regional Interaction** (Standardization)

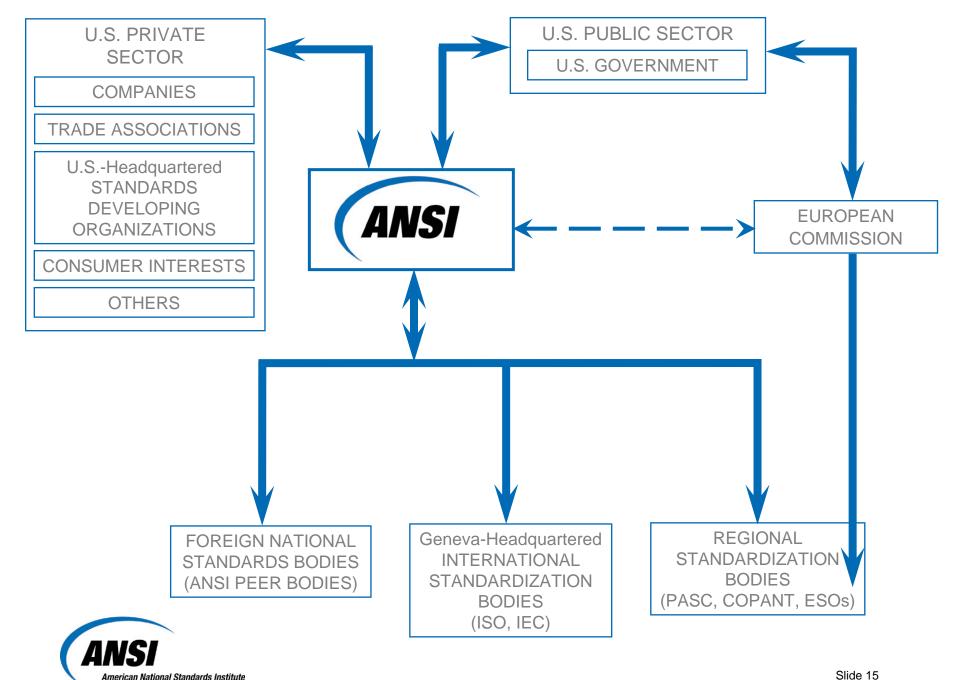
- ANSI serves as the official U.S. member of regional bodies
  - Pacific Area Standards Congress (PASC)
  - Pan American Standards Commission (COPANT)
- The Institute holds an annual dialogue with representatives of the European Standards Organizations (CEN, CENELEC and ETSI) and the European Commission











American National Standards Institute

### **Key Characteristics of U.S. CA System**

- Conformity Assessment (CA) system, like Standards system, evolved in decentralized manner
- Activities are a mix of government (regulations) and private sector (market activities)
- Approaches vary among sectors from Self Declaration of Conformity (SDoC) to 3<sup>rd</sup>-party review (accreditation)
- Is generally effective, open, and transparent
- Designed to provide more confidence in the quality of the product, service, or system by consumers, the public, and employers



### **ANSI By-Laws in Relation to Consumers**

Purposes of the Institute include . . .

- To further voluntary standards and certification activities as a means of . . . benefiting the public health, safety, welfare and environment
- To assure that the interests of the public have appropriate protection, participation and representation in standardization, certification and related activities

(excerpt from ANSI By-laws)



### American National Standards (ANS) For the Home Environment (Examples)

- Safety of Appliances
  - electric coffee makers (UL 1082)
  - household trash compactors (UL 1086)
- Performance of appliances
  - > household refrigerators and freezers (ANSI/AHAM HRF-1)
  - portable air cleaners (ANSI/AHAM AC-1)
- Energy-efficient design (ANSI/ASHRAE 90.2)
- Safe electrical installation (NFPA 70)
- Accessible and usable buildings and facilities (ICC/ANSI A117.1)
- Toy safety (ANSI/ASTM F963)



And many others . . .

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### **Consumer Involvement Helps Standardization**

- Promotes safer, healthier, more environmentally-friendly products
- Raises awareness of consumers with special needs
- Introduces new subjects for standardization and conformity assessment
- Facilitates the flow of goods and services into the marketplace
- Fosters government reliance on voluntary standards and conformity assessment programs
- Enhances the credibility of the system



### Challenges Associated with Consumer Involvement in Standardization

- Lack of awareness of standards
- Lack of understanding of value of participation
- Lack of technical expertise / procedural knowledge to participate
- Perception that process is dominated by industry
- Lack of resources (personnel, funding, technical support) to participate



# **Opportunities for U.S. Based Consumers to Participate**

#### **Policy Level**

- ANSI Board of Directors and Institute Policy Committees
- ANSI Consumer Interest Forum
  - ISO COPOLCO
- Standards Panels

#### **Technical Level**

- Committees of ANSI accredited standards developers
- U.S. Technical Advisory Groups (TAGs) to ISO / IEC
  - > Appointed expert to ISO / IEC working groups
  - Delegations to ISO / IEC technical committees

#### **Public Review and Comment**





# **ANSI's Consumer Interest Forum (CIF)**

#### **Objectives**

- Ensure that consumer concerns and needs are identified and addressed in national and international standardization
- Increase consumer participation in the development of standards for consumer products and services
- Recommend and support standardization initiatives that protect the health and safety of consumers, are environmentally sound, and improve the quality of life
- Influence standardization and conformity assessment policies and procedures
- Promote greater awareness among consumers on the role and value of standards in everyday life
- Serve as a forum in which to dialogue and exchange information on key consumer interest issues
- Provide strong U.S. leadership in the International Organization for Standardization's Consumer Policy Committee (ISO COPOLCO)



# **ANSI CIF Membership**

Includes Academics, Consumer Organizations, Testing Organizations, NGOs, Government Agencies, Standards Developing Organizations, and others

- Assn. of Home Equipment Educators
- Consumers Union
- Direct Selling Education Foundation
- Intertek Testing Services
- National Assn. of Consumer Agency Administrators
- National Consumers League
- Pacific Institute

- Social Accountability International
- U.S. Consumer Product Safety Commission
- U.S. Dept. of Commerce— International Trade Administration
- Underwriters Laboratories, Inc.
- Toy Industry Association
- Consumer Advocates / Consultants

CIF Chair serves on Executive Committee of ANSI Board of Directors

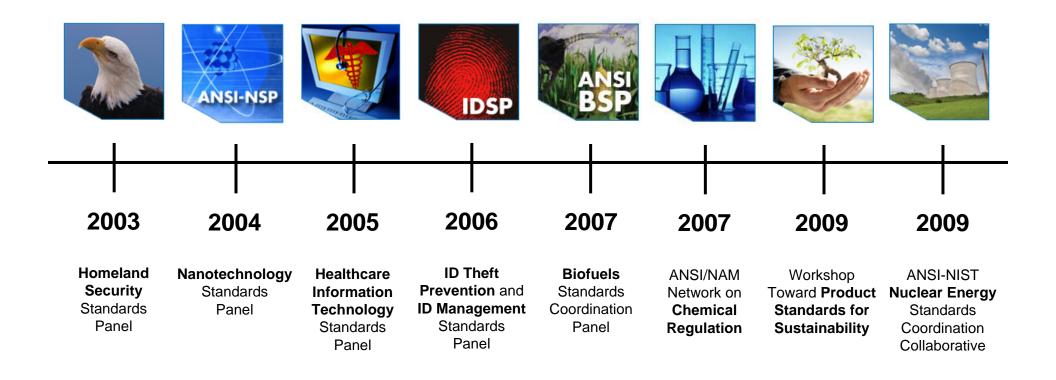


#### **Standards Panels**

- ANSI Standards Panels are cross-sector coordinating bodies established to promote the development and compatibility of voluntary consensus standards and conformity assessment programs necessary to support national and global priorities
  - Coordinate the efforts of the private and public sectors
  - Identify existing standards and compliance programs
  - Define where gaps exist
  - Recommend where additional work is needed
  - Identify organizations that can perform the needed work



#### **ANSI Panels, Forums, and Workshops**





#### **Public Review and Comment**

- Standards Action, a weekly publication, is ANSI's primary mechanism for inviting public review of and comment on proposed standards and procedural changes
- ANSI's procedures require that prompt consideration be given to the written views and objections of all participants, including those responding to public comment listings in *Standards Action*

www.ansi.org/publicreview | www.ansi.org/standardsaction



### What's Included in Standards Action?

#### **Domestic Process**

- Notices of proposals for new American National Standards
- Proposals to revise, reaffirm or withdraw existing American National Standards
- Final actions on the approval of American National Standards
- Notices announcing the application for accreditation or reaccreditation of a standards developer



#### Standards Action (continued)

#### **International Process**

- Draft International Standards
- Proposed new fields of ISO technical activity
- Notices of the acceptance, transfer or relinquishment of international secretariats
- Notices of the formation and termination of U.S. Technical Advisory Groups (TAGs a/k/a mirror committees), and assignment of the U.S. TAG Administrator

#### Proposed ANSI procedural changes



### **ANSI Essential Requirements - Outreach**

- Outreach to achieve a balance of interests on an ANS consensus body is required
  - Documentation of outreach efforts is required
  - If outreach does not result in a perfectly balanced consensus body, the project may still go forward
- Examples of outreach (targeted to a particular interest category or general participation):
  - Web postings
  - > Standards Action
  - > Notice/articles in appropriate media
  - > Announcements at meetings
  - > E-mail solicitations
- Some developers undertake special consumer outreach and/or have programs that support consumer participation
  - Special programs are not required by the ANSI Essential Requirements: Due process requirements for American National Standards ("ANSI Essential Requirements") www.ansi.org/essentialrequirements



# ANSI's Consumer Outreach Program – Speaking Engagements

#### Goal / Strategy

 Promote importance of standards and consumer participation in standards by speaking at annual conferences of leading consumer organizations and academic associations

**Topics** 

- Safer homes through consumer involvement in standardization
- Incorporating standards into university curricula
- Ways that consumers can become involved in standards policy activities
- COPOLCO product safety initiatives

**Formats** 

- Presentation / panel / roundtable discussion / exhibit booth with literature
- Interactive exercise on how to evaluate injury data and devise a safety standard for a consumer product
- Virtual workshops (teleconference with web presentation)
- Sometimes partner with ANSI CIF members and COPOLCO colleagues



### ANSI's Consumer Outreach Program – Other Actions

- Have authored articles for ANSI Online and print publications: ANSI Reporter; ISO Bulletin; Journal of Family and Consumer Sciences (peer-reviewed) and NACAA News
- Periodic email alerts to consumer contacts on significant developments
- Direct outreach to engage specific consumer organizations or consumer representatives in particular activities
- Periodic surveys of standards developers and U.S. TAGs on the extent to which they involve consumers in their standards activities



### **U.S. National Committee of IEC Initiative**

- Consumer seat added to USNC Council (Jan 2006)
- USNC Council adopted a strategic objective to build strong consumer involvement and active participation at the management and technical levels of IEC and USNC (Jan 2006)
- USNC President addressed ANSI CIF (Oct 2006)
- CIF Chair addressed USNC Council (Jan 2007)
- USNC Council approved fee waiver provision for consumers to participate on US TAGs (Jan 2007)
- Consumer rep. identified to fill seat on USNC Council (Jan 2008)
- USNC Council consumer seat made a full voting seat (Jan 2009)
- Two consumer reps. identified for U.S. TAGs to IEC/TCs 59 and 61 on safety and performance of household domestic appliances (Mar 2009)



STANDARDS are our business



### **Financial Incentives for Consumers**

- ANSI provides financial support to facilitate the participation of consumer representatives in standardization
- Includes reimbursement of travel expenses incurred in connection with attending ANSI governance meetings or when attending meetings as an authorized ANSI delegate
- Program has enabled consumer representatives employed by or affiliated with prominent consumer organizations to participate on the ANSI Board and in the Institute's governance activities, and in the policy related activities of ISO COPOLCO
- ANSI has a deeply discounted full organizational membership fee for consumer organizations
- Some ANSI accredited standards developing organizations also provide financial and logistical support as well as training and educational <u>materials to facilitate consumer involvement</u>



# **ANSI's Training and Education Portal**

#### www.StandardsLearn.org

- E-Learning (web-based, self-instruction)
  - > Four, free introductory courses on standardization
  - Short Course: Through History with Standards. A quick overview to demonstrate how standards have evolved over time
  - > Why Standards Matter. A general introduction to standards and conformity assessment activities
  - U.S. Standards System Today and Tomorrow. A spotlight on the U.S. national standards system
  - Short Course: Legal Issues in Standard-Setting. A Simple Review of Antitrust Laws and Patent Policies
- Acronym Directory
  - A database of acronyms commonly used in the standards and conformity assessment community



### Training and Education Portal (continued)

- Standards Education Database
  - Links to web-based education and distance learning resources related to standards and the organizations that develop them.
    - ASTM <u>www.astm.org/campus</u>
    - Underwriters Laboratories, Inc. <u>www.uluniversity.com</u>
    - IEEE <u>www.ieee.org/standardseducation</u>
- Standardization Case Studies
  - Links to case studies, crossing a variety of disciplines, where standardization - either the concept or actual practice - helped in the resolution of real-world problems
  - Examples include standards for clothes washers, drinking water quality management, and fire safety (cigarettes and arc-fault circuit interrupters)



### Training and Education Portal (continued)

- ANSI Education and Training Services
  - Instructor-led Courses
    - Classroom training on-site at ANSI or customized for use in particular organization
    - Topics include the American National Standards development process, effective participation, secretariat operations, etc.
  - Training Schedule
  - University Outreach Program
    - ANSI makes ISO and IEC standards available for use in classrooms
    - Survey of participating professors showed agreement that the program is very useful
    - Since its inception in 2004, eighty (80) faculty from seventy-two (72) schools have requested a total of five hundred twelve (512) standards to be made accessible to a total of two thousand three (2003) students.
  - Committee on Education
    - Promotes awareness of standards and conformity assessment at university level
- Standards in the Classroom
  - List of universities that offer courses dedicated to standards / standardization



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#### **Other ANSI Educational Resources**

- Consumer affairs overview and resources <u>www.ansi.org/consumer</u>
- Library of speeches and presentations, published articles <u>www.ansi.org/news</u>
- Media tips and case studies <u>www.ansi.org/mediatips</u>
  - For journalists, consumers and educators/students
  - > Uses non-technical language to illustrate standards in daily life
- USNC/IEC Training modules <u>www.ansi.org/usnc</u>
- National student design competition for sustainability <u>www.ansi.org/p3</u>
  - > ANSI's partnership with EPA
  - Provides grants to college student teams and faculty to research, develop, and design sustainable solutions to environmental challenges



#### **Discussion with Consumer Leaders**

- Ms. Linda Golodner, President Emeritus, National Consumers League (ANSI CIF Chair 2007-2008, 2001-2003)
- Mr. Donald L. Mays, Senior Director, Product Safety and Technical Policy, Consumers Union / Consumer Reports (ANSI CIF Vice Chair 2010)
- Dr. David Pittle, consumer representative (retired Senior Vice President for Technical Policy, Consumers Union, and former Commissioner, U.S. Consumer Product Safety Commission) (ANSI CIF Vice Chair 2007-2009)
- Ms. Kathleen Thuner, retired San Diego County Agricultural Commissioner/Sealer of Weights and Measures, representing the National Association of Consumer Agency Administrators (ANSI CIF Chair 2009-2010; ANSI CIF Vice Chair 2004-2006)



### Thank You / For more information



#### **American National Standards Institute**

#### **Jim McCabe**

Sr. Director, **Consumer Relations** and IDSP T: 1.212.642.8921 jmccabe@ansi.org

#### Headquarters

#### 1819 L Street, N Sixth Floor Washington, DC

T: 202.293.802

F: 202.293.928

#### **Operations**

W	25 West 43rd Street
	Fourth Floor
C 20036	New York, NY 10036
20	T: 212.642.4900
37	F: 212.398.0023

#### www.ansi.org | webstore.ansi.org | www.nssn.org



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