

PDHonline Course G154 (4 PDH)

The U. S. Standards Development System and Process: The American Way

Instructor: Pamela Suett, B.S.

2012

PDH Online | PDH Center

5272 Meadow Estates Drive Fairfax, VA 22030-6658 Phone & Fax: 703-988-0088 www.PDHonline.org www.PDHcenter.com

An Approved Continuing Education Provider

Glossary

Accreditation

Assessment and approval of the process by which standards bodies develop standards, and by which conformity assessment bodies certify products, services, and systems in accordance with recognized accreditation standards. When used in relation to testing facilities, accreditation refers to the process of evaluating testing facilities for competence to perform specific tests using standards test methods.

American National Standards (ANS)

ANSI facilitates the development of American National Standards (ANS) by accrediting the procedures of standards developers. This accreditation signifies that the procedures used by the standards developer in connection with American National Standards meet ANSI's essential requirements for openness, balance, consensus and due process. ANSI approves a standard only when it has been shown that the standard submitted by an ANSI-accredited standard developer meets these requirements.

Antitrust

Opposing or intended to restrain trusts, monopolies, or other large combinations of business and capital, with a view to maintaining and promoting competition.

ANSI-accredited standards developers

An organization that has fulfilled ANSI accreditation requirements for standards development.

Balance

Participants from diverse interest categories (stakeholders) are sought to participate in the standard development process (e.g., committee) with the objective of achieving balance in the process.

Certification

A scheme, structure or process that ensures that the origin, material, quality, mode of manufacture, accuracy, or other characteristics of a product or service has met certain agreed upon-criteria developed for that product, service or profession.

Code

Laws or regulations that specify minimum standards to protect public safety and health such as codes for construction of buildings. Voluntary standards are incorporated into building codes.

Code of Good Practice

Acceptable procedures and behavior delineated in a written document.

Codify

To arrange and condense laws, rules, etc. into a systematic collection as a code.

Conformity assessment

A process whereby a product, procedure, service or system is evaluated or measured against a standard. Activities associated with conformity assessment include testing, certification, accreditation, and quality assurance system registration.

Consensus

General agreement that involves seeking and taking into account the view of all parties concerned, and to reconciling any conflicting arguments. Consensus does not imply unanimity.

Consortia

An open and informal group of independent organizations joined by common interests.

Copyright

The exclusive right, granted by law to make copies, license, and otherwise exploit a published work.

Executive Standards Council (ExSC)

The ANSI ExSC is responsible for the approval of accreditation and reaccreditation of standards developers and ANSI-accredited U.S. Technical Advisory Groups (TAGs) to ISO. It has oversight responsibilities for the audit program and is the appeals body for procedural and accreditation issues.

De facto standard

Standards that have come into use by general acceptance, custom or convention but have no formal recognition.

Design standard

Standards that specify the design or technical characteristics of a product in terms of how it is to be constructed, assembled or manufactured.

Due process

Any organization, company, government agency, or individual with a direct and material interest has a right to participate by expressing a position and its basis, having that position considered, and appealing if adversely affected.

Guidance documents

A document that describes a particular procedure or process but that does not include any requirements.

Harmonized standards

Equivalent standards on the same subject approved by different standardization bodies, which allow for establishment of interchangeability of products, processes and services,

and for mutual understanding of test results or information provided according to these standards.

ISO

The purpose of International Organization for Standardization (founded in 1947) is to facilitate the internationalization and unification of standards and related activities over almost the **entire range of technology** (except that covered by IEC).

ISO 9000

The ISO 9000 family of standards represents an international consensus on good management practices with the aim of ensuring that the organization can time and time again deliver the product or services that meet the client's quality requirements developed by an ISO Technical Committee. These good practices have been distilled into a set of standardized requirements for a quality management system, regardless of what an organization does, its size, or whether it's in the private, or public sector.

ISO 14000

The ISO 14000 series of standards provide guidance on several aspects of environmental management, including environmental auditing, performance evaluation, and life cycle assessment. The series addresses the needs of organizations worldwide by providing a common framework for managing environmental issues. Developed by an ISO Technical Committee that has as its scope of work "standardization in the field of environmental management tools and systems," ISO 14000 is a series of international, voluntary environmental management standards, guides and technical reports.

IEC

The purpose of the International Electrotechnical Commission (founded in 1906) is to promote international cooperation in standardization in the fields of **electricity**, **electronics and related technologies**.

Intellectual Property

Property that results from original creative thought such as patents, copyright materials, and trademarks.

International standard

A standard adopted or developed for global use.

Interoperability

Ability of a system or a product to work with other systems or products without special effort on the part of the customer. Interoperability is made possible by the implementation of standards.

Interchangeability

Ability of a system or product to be compatible with or to be used in place of other systems or products without special effort by the user.

Management System Registration

Filing of management systems registrations with a recognized registration authority.

Management system standard

Standards that specify process requirements that can be applied to any organization, regardless of the product it makes or the service it performs.

Mandatory standards

Standards incorporated into laws or technical regulations for the protection of public health, safety, and the environment; or when incorporated into contractual agreements, between buyers and sellers.

NIST - National Institute of Standards and Technology

A government agency that develops technologies, measurement methods and standards, that help U.S. companies compete in the global marketplace, and that coordinates U.S. federal government use of voluntary standards.

NTTAA

The National Technology Transfer and Advancement Act of 1995 is legislation that requires government agencies to use voluntary standards from the private sector where feasible.

National standard

A standard developed primarily for domestic use. U.S. national standards may be adopted as international standards and international standards may be adopted as U.S. national standards.

Openness

Participation in the standard development process shall be open to all persons who are directly and materially affected by the activity in question, and the committee's activities are publicly available.

Patent

The exclusive right granted by the government to an inventor (individual, company or organization) to manufacture, use or sell an invention for a certain number of years.

Performance Standards

Performance standards specify the level of expected performance for a product, not how it should be designed, and may include test methods that simulate performance under actual conditions.

Personnel certification

Personnel certification verifies that individuals in various professions have the necessary knowledge, skills and abilities to perform their work. The purpose of certification of personnel is to provide improvement in professional competence, a more highly skilled

workforce, particularly within industries that have an impact on public safety and protection.

Process standard

Process standards relate a series of actions or operations used in making a product and provide the methodology to perform these processes in a consistent and reproducible way.

Procurement

To obtain or purchase technical, administrative or domestic goods and services through a systematic method.

Product standard

Product standards can either define how the product should perform or how it should be designed.

Professional association or society

Professional societies are generally membership organizations that represent the individual professionals in a specific profession from diverse industries, and have activities and programs that support the profession.

Regional standard

A standard developed by a specific region of the world, such as Latin America, that may be adopted as an international standard.

Regulation

A rule adopted by a federal or state regulatory agency to implement, interpret, or make specific the law enforced or administered by it, or to govern its procedure.

Simple majority

More than half of the total votes cast in support of a particular position.

Specification

A set of conditions and requirements of precise and limited application that provide a detailed description of a procedure, process, material, product, or service for use primarily in procurement and manufacturing. Standards may be referenced or included in specifications.

Standards Bodies

National, regional and international standards bodies that develop standards and/or that coordinate the standards activities of a specific country, region or the world. Standards bodies may be supported by the private sector, the government, or some combination thereof. Some standard bodies facilitate the development of standards through support of technical committee activities, and some may be directly involved in standards development.

Strategic standardization

Strategic standardization is a management discipline that investigates all aspects of standardization across a business or industry, then defines, recommends, and implements appropriate strategies and policies that can give a company a competitive advantage, or avoid a competitive disadvantage.

Technical Regulation

A mandatory government requirement that defines the characteristics and/or the performance requirements of a product, service or process (see also Regulation).

Technical barriers to trade

Differences in product requirements and approval schemes, occurring in laws, regulations and standards, which restrict trade between countries.

Technical Barriers to Trade Agreement (WTO)

Technical regulations and industrial standards are important, but they vary from country to country. Having too many different standards makes life difficult for producers and exporters. If the standards are set arbitrarily, they could be used as an excuse for protectionism. Standards can become obstacles to trade. The Agreement on Technical Barriers to Trade tries to ensure that regulations, standards, testing and certification procedures do not create unnecessary obstacles.

Technical committee

Technical committees are, generally, groups of technical subject matter experts who volunteer their time to draft and write the content of a standard in periodic standards development sessions.

Trade association

Trade associations, whose members include companies in the same business serving a specific industry, have activities and programs that support the industry.

U.S. national body

ANSI is the U.S. member body to ISO and the IEC, via the U.S. National Committee to IEC, representing United States interests in international standards development. National standards bodies in other countries are the member bodies to ISO and IEC for their countries.

Voluntary Consensus Standard

The term "voluntary" distinguishes the standards development process from governmental or regulatory processes. All interested stakeholders participate, including producers, users, consumers, and representatives of government and academia. Voluntary standards are also made mandatory at times by being incorporated into law by governmental bodies.

World Trade Organization

The WTO, located in Switzerland, is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified by their governments. It provides a forum for trade negotiations, handling trade disputes, and monitoring trade policies. The goal is to help producers of goods and services, exporters and importers to conduct their business.