PDHonline Course G150A (2 PDH)

Why Standards Matter

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WHY STANDARDS MATTER

Lesson 6 – Course Wrap-Up

Frequently Asked Questions and Answers

Q: What is a standard?

A: A standard is a formal document that defines the characteristics of a product, process or service, such as dimensions, safety aspects, and performance requirements. Standards are found everywhere in our daily lives, in manufacturing, construction, quality performance of goods, environmental protection, health, and safety. For example, there are standards that describe the characteristics of the nuts and bolts used to hold together the chair you are sitting on.

Q: What do you mean by "voluntary" standards?

A: Using the word "voluntary" to describe standards means that adherence to a standard is not mandatory. No one is forced to manufacture goods or provide services and procedures as described in a standard. However, it is "good business" to be involved in the voluntary process of standardization.

Q: Who enforces standards?

A: No one enforces voluntary standards. The development, application, and use of U.S. national voluntary consensus standards are just that - voluntary. This means compliance and conformity are also voluntary. ANSI accredits standard developing organizations, and approves standards according to its procedures for due process, openness, and consensus. Standards can be located through ANSI, but ANSI does not enforce adherence to voluntary standards, nor does any other U.S. national organization. ANSI promotes the use of standards and encourages participation in the development of standards. Do not confuse a standard with a specification in the form of a government regulation or law. Laws are mandatory and require a law enforcement system. Standards are not mandatory and are not enforced. The exception to this is when a standard is adopted or incorporated into a law, thereby becoming mandatory.

Q: Does the government regulate standards development in the U.S.?

A: No. The U.S. national standards system is private-public partnership led by the private sector. In other parts of the world, standards systems are typically government-run.

Q: What's the difference, if any, between a standard and a technical regulation?

A: The primary difference between a standard and a technical regulation is that a standard is voluntary in development and in use, and a technical regulation is mandatory, dictated in law, and required by the government. A specification contained in a standard can become part of a technical regulation or law, but on its own, adherence to a national standard is voluntary.

Q: What role do government agencies have in standards development?

A: The U.S. government has many agencies that develop voluntary standards, and these government agencies follow the same guidelines as any other standard developing organization (SDO) for ANSI accreditation and approval of standards. The Department of Agriculture and the Federal Communications Commission are examples of government agencies that participate in the development of voluntary standards.

Q: How do government agencies use standards? What do you mean by "adopting standards into regulations?"

A: Governments worldwide are recognizing the importance of standards and their application by using the voluntary standardization system as an alternative to writing government-unique standards into their regulatory requirements. In the U.S., responsibility for setting product and process standards rests almost exclusively with the private sector. U.S. government agencies rely heavily on voluntary standards that they often incorporate into regulations and procurement requirements.

Q: How can I find out whether standards already exist—or are currently being developed—in my area of interest?

A: A good place to start your search for a standard is the [ANSI Standards Mall](#), formerly the National Standards Systems Network (NSSN) which lists over 300,000 standards. This search engine allows you to find national and international standards that already exist, and standards that are currently being developed, and it directs you to where the standard can be purchased.

Q: How much do standards cost? Are they free? (If not, why not?)

A: There are standards that have free distribution and those that have to be purchased. The standard developing organization (SDO) determines the price of a standard, which may range from a few dollars to several hundred dollars. With today's electronic dissemination capabilities, the distribution cost of standards has been reduced. There are still costs that must be considered when determining the price of a standard. For instance, the information contained in a standard is the intellectual property of the organization that developed the

standard. When others want to use this property, they are expected to pay a fair value for it. If incorporating the content of a standard is necessary in the development of a product or service, obtaining this intellectual property should be seen as no different from obtaining any other component or product. Standards are sold to support the SDO's ability to provide an infrastructure to develop standards. By and large, SDOs are non-profits and are recouping their costs of the product or service.

Q: How can I obtain copies of the standards I need? Can I make copies for everyone in my organization?

A: One way standards can be obtained is by purchasing them from the ANSI's online Standards Mall. Standards are copyrighted documents and therefore cannot be reproduced without the official written consent from the copyright holder of that standard.

Q: How are standards accepted internationally?

A: There is no simple answer to this question. There are multiple approaches to the definition, development, adoption, and acceptance of international standards. One approach is through active participation in the international standards development process of the International Organization for Standardization (ISO) or the International Electrotechnical Commission (IEC).

GLOSSARY OF TERMS

American National Standard (ANS) -- A document that has achieved consensus in accordance with the *ANSI Procedures for the Development and Coordination of American National Standards* and the procedures of an ANSI-Accredited Standards Developer (ASD), and that has been approved by the ANSI Board of Standards Review or by an ANSI Audited Designator.

American National Standards Institute (ANSI) -- A private, non-profit organization that coordinates the U.S. voluntary standardization and conformity assessment system. Its mission is to enhance U.S. global competitiveness and the American quality of life by promoting, facilitating, and safeguarding the integrity of the voluntary standardization system. The Institute represents the interests of its company, organizational, government, institutional and international members. ANSI accredits national standards developing organizations and approves American National Standards. It represents U.S. interests in international standards development activities.

ANSI Members -- The ANSI federation has 1,000 U.S. companies, professional societies and trade associations, standards developers, government agencies, institutes and consumer and labor interests as members, all working together to develop voluntary national consensus standards.

Accreditation -- Assessment and approval of the procedures 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.

Accredited Standards Developer -- An entity whose procedures satisfy the requirements set forth in the *ANSI Procedures for the Development and Coordination of American National Standards*, and that has been approved as such by the ANSI Executive Standards Council (ExSC) for the development of American National Standards.

Building Codes -- Laws or regulations that specify minimum standards of construction for buildings to protect public safety and health.

Company Standards -- Internal documents prepared by a company for its own use that define such activities as production processes, material characteristics, and purchasing requirements.

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 reconcile any conflicting arguments. Consensus is more than a simple majority, but does not imply unanimity.

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

Industry Standard -- A voluntary, industry-developed document that establishes requirements for products, practices, or operations.

International Standard -- A standard adopted or developed for global use.

International Trade -- Measures the difference between imports and exports of both tangible goods and services. The level of the international trade balance, as well as changes in exports and imports, indicate trends in foreign trade.

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.

Mandatory Government Standard -- A standard set by government that prescribes safety, health, or environmental requirements.

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.

Model Building Codes -- Building codes that establish minimum acceptable requirements for commercial and residential construction to preserve the public health, safety and welfare. Model building codes are developed nationally then adopted by state and local authorities.

National Institute of Standards and Technology (NIST) -- A government agency that develops technologies, measurement methods and standards that help U.S. companies compete in the global marketplace. NIST's major programs include NIST Laboratories which provide measurements and standards for U.S. industry, Manufacturing Extension Partnership which provides technical and business assistance to smaller manufacturers, and the Advanced Technology Program which partners with the private sector to develop broadly beneficial technologies.

National Standard -- A standard developed primarily for domestic use. U.S. national standards may be adopted as international standards and international standards adopted for use in the U.S.

National Standard Development -- The process by which U.S. standards are developed.

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.

Standard -- A standard is a document that defines the characteristics of a product, process or service, such as dimensions, safety aspects, and performance requirements.

Standards Body -- An organization that is involved in regulating, developing and promoting standards and/or coordinating the standards development process. Standard bodies can be government-based, private-sector-based or a combination. ANSI is a private-sector standards body.

Standard Developer or Standard Developing Organization (SDO) -- An organization, committee, company, governmental agency or group that develops standards.

Standard Development Process -- A step-by-step formalized committee process for developing voluntary consensus standards. For example, the national process includes beginning with a draft of the proposed standard through the various steps to application to ANSI for approval of the standard. ANSI does not approve the technical content of the standard. It approves the process by which the standard was developed. Not all national standards developed are submitted to ANSI for approval.

Standardization -- The use of common products, processes, procedures, and policies to facilitate attainment of business objectives.

Technical Barriers to Trade -- Differences in product requirements and approval schemes, occurring in laws, regulations and standards, or conformity assessment practices, which restrict trade between countries.

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

Voluntary Government Standard -- A standard written by a government department or agency that prescribes requirements for a product or service, such as food grade standards developed to facilitate the marketing process. Use of the standard is voluntary.

Voluntary Standard -- The term "voluntary" distinguishes the standards development process from governmental or regulatory processes. Voluntary standards are also made mandatory at times by being incorporated into law by governmental bodies.

Voluntary Standards System -- A system used to develop voluntary standards wherein participation in the system itself is voluntary. All interested stakeholders participate, including producers, users, consumers, and representatives of government and academia.