



PDHonline Course G150 (2 PDH)

Why Standards Matter

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WHY STANDARDS MATTER

Lesson 3 – Standards Are Important

Topic: Lesson Overview



In this lesson, you will learn about the importance of standards, and how standards relate to your industry, organization and your life:

- Replacing a light bulb is simple because bulbs and sockets are manufactured to standard sizes that provide for interchangeability and proper fit;
- Buying film to fit any camera is easy because of standards for film sizes that are used by both the camera and film manufacturers;
- Opening oven doors without burning our hands is assured because of standards that prevent door handles from becoming hot during normal oven use.

There are standards for almost everything we can think of, and new ones can be written if there is a need for them. This lesson will explain significance of standards before and after the World Trade Center disaster, how toy safety standards protect your children, and the role standards play in consumer protection. When you complete this section, you will be able to:

- Recognize the importance of standards in your life, company, society, or industry;
- Recognize how different organizations and industries are involved in standards development;
- Identify the different kinds of standards;

Key Terms and Acronyms for this Section – You can find a complete list of terms and Acronyms in the Glossary for this course, but here are ones you will need to know for this section.

- Voluntary standards
- Voluntary standards system
- Standards development process
- Standards Developing Organizations
- SDO
- Consumer Product Safety Commission
- Consortium

Topic: Missed Communication – September 11th & the World Trade Center



Communications standards are extremely important for national defense and in responding to emergencies and disasters. Mr. Allen W. Beckett, the Department of Defense's Principal Assistant Deputy Undersecretary of Defense for Logistics and Materiel Readiness, pointed out the value of standards in a recent talk. He noted that communication standards are extremely important in Afghanistan where Allied forces are able to communicate thanks to common standards. He went on to point out that on September 11th, many emergency response agencies were unable to communicate due to the use of different communications equipment and frequencies.

"Because of the unfortunate lessons learned at the Pentagon and the World Trade Center", Mr. Beckett said, "local, state and federal emergency agencies are all looking for universally accepted, interoperability standards and equipment [to enable] radio and telephone communication...between responding units."

See [Legislation Supports Wireless Interoperability Standards](#) for information on the latest legislation regarding integrated public safety communication systems that facilitate interoperability based on specific technical standards.

A number of federal agencies and standards developing organizations (SDOs) are involved in improving emergency communications, and they are coordinated through the Office of Homeland Security. The Federal Communications Commission (FCC) has established a Homeland Security Policy Council and has launched initiatives including promoting network reliability and interoperability and improving public safety by addressing spectrum issues such as redundancy.

For communications, interoperability can be defined as the condition achieved among communications-electronics systems or communications-electronics equipment when information or services can be exchanged directly and satisfactorily between them and/or their users. The Alliance for Telecommunications Industry Solutions (ATIS) has a more complete set of definitions on their [web site](#).

Visit the [FCC site](#) to see some of the damage to telecommunications facilities at the World Trade Center site.

Review the recommendations from the [Pentagon Study](#) to see how important standards are to ensuring reliable public safety communications systems.

Topic: Be Careful! – Child Safety Standards



Each year thousands of children are injured from seemingly harmless products. Do cribs, toys, highchairs, playpens, toy chests, strollers and playgrounds pose a danger? They can, according to the U.S. Consumer Product Safety Commission (CPSC). CPSC is an independent federal regulatory agency that works to save lives and keep families safe by reducing the risk of injuries and deaths associated with consumer products. They do this in a number of ways, such as developing voluntary standards with industry, issuing and enforcing mandatory standards, or banning consumer products if no feasible standard would adequately protect the public.

Industry standards have been developed by ASTM International for such products as toys, playground equipment, and tricycles.



For more information on child safety, go to the [U.S. Consumer Product Safety Commission](http://www.cpsc.gov) site or [the Underwriters Laboratories site](http://www.ul.com).

Topic: Don't Blow Up the Cook – New Gas Barbeques and Propane Tank Standards



DAILY Photo by Corey Wilson
Ace Hardware's John Buchanan
and a propane tank with the new valve

Did you know that as of April 1, 2002, all propane gas tanks sold to consumers for barbecue grills must have a new safety device? The over-fill prevention device will help to avoid propane leaks that can cause fires and explosions. The new standard is published by the NFPA.

Propane gas is highly flammable. Each year, about 600 fires and explosions occur with gas grills resulting in injuries to about 30 people. The new safety standard for propane gas tanks requires that an over-fill prevention device be installed in new gas tanks. The new safety device prevents propane tanks used on gas grills and campers from overfilling. People with older propane tanks will need to get the new, safer tanks when they go in for a refill. While some dealers are trading in old tanks at no cost, other may charge a fee.

The voluntary standards system has produced thousands of standards and many of them contribute to the safety, convenience and comfort of consumers. The standard development process gives interested citizen volunteers a voice on proposed standards to represent and protect consumers. For example, thanks to consumer recommendations, ladders are built with easy-to-follow warning labels and instructions on selection and use, and all clothing has simple and complete care labels.

Topic: Spinning the Web - Standards and the Internet



The fact that you are taking this online course means that you are connected to the Internet, so you are already familiar with this technology. Internet users increasingly count on "being connected" for a number of reasons. The importance of the computer and the Internet to all segments of society continues to grow at a rapid pace. We rely on the Internet at work and at home for a variety of applications such as email, purchasing, tracking shipments, access to a myriad of sources of information, and, in this case online education or e-learning.

How does it all work? How can your computer at home "talk" to a computer halfway around the world? The backbone of the Internet is based on an open-architecture network that relies on standards and specifications for the technical requirements. These requirements have changed over time and they continue to

change as technology evolves. The main organizations behind the development of Internet standards are the Internet Engineering Task Force (IETF) and the World Wide Web Consortium (W3C).

The Institute of Electrical and Electronics Engineers (IEEE) develops standards on a variety of subjects, including computer and software engineering for use in network applications worldwide.

For more information about Internet standards, read "[The Internet Standards Process](#)."

Go to [Media Tips and Case Studies](#) and read about consumer involvement in the development of standards for sunglasses at the American National Standards Institute (ANSI) website.

Go to the ASTM Handbook of Standardization and read the section on [Standards in the World Around You](#).