

Code Advocacy for the Educational Facilities Profession



by Thomas W. Jaeger, P.E.

In this article, we are using the term “code” to mean those codes and standards used to regulate buildings at higher educational institutions and the systems installed in these buildings. Likewise, we are using the term “advocacy” to mean influencing the requirements contained in the referenced codes and standards and to influence the building regulator process.

Although advocacy and lobbying are different, generally a good code advocacy program includes lobbying. What do we mean by this? Code Advocacy is an organized effort to influence the outcomes by gaining access and voice in the decision making of relevant codes and standards development organi-

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zations whose codes and standards are used to regulate your industry. Lobbying is the process of trying to influence the legislation that adopts the codes and standards on which your industry has had influence in the outcome of what requirements are contained in those codes and standards.

Code Advocacy is common in most industry associations whose members own, build, occupy, and maintain buildings. Some of the more active associations with strong code advocacy programs include the Hotel and Motel Association, the American Hospital Association, the American Health Care Association, the Home Builders Association, and the Building Owners and Managers Association (BOMA), just to name a few. The code advocacy programs of these associations have resulted in the savings of billions of dollars to their members. Just as important, their code advocacy efforts have resulted in allowing their members to build and operate their buildings in a manner advantageous to the members.

The majority of codes and standards are occupancy oriented, meaning that the requirements and standards are based on the occupancy classification of the building. Most associations generally represent a single occupancy, such as the previously mentioned associations, which individually represent residential, healthcare, or business occupancies.

Code advocacy for the higher education industry will be different. In U.S. Codes and Standards, there is no such thing

as a higher education occupancy. Higher educational facilities comprise several different occupancies to include residential occupancies (dormitories, single family homes, Greek houses, etc.); office buildings (classroom buildings, administrative buildings, etc.); assembly occupancies (libraries, arenas, performing arts centers, cafeterias, gymnasiums, etc.); healthcare occupancies (clinics, hospitals, etc.); industrial buildings (laboratory buildings, etc.), and, of course, historical buildings. We will come back to this later as to why it is important to understand that higher educational facilities are actually composed of multiple occupancies.

Who develops the codes and standards used to regulate higher educational facilities and which of these codes and standards have the greatest impact on the cost and operation of your facilities? The answer is that there are hundreds of codes and standards used to regulate your facilities and dozens of organizations that develop these documents. What most of the organizations that develop these documents have in common is that they are nonprofit public entities. It might come as a surprise to many of you that the vast majority of the codes and standards—certainly the major ones—are developed in the private sector and adopted through a legislative process by government agencies. This is also true for those codes and standards used by the insurance industry, which also sets requirements for your facilities. Having 35 years experience in code advocacy, I can assure you that you do not want the government to develop these codes and standards. What is best for your industry is to partner with the private sector to develop the codes and standards.

Codes and standards are developed by technical committees of volunteers who are experts in the scope of each of these documents. This is called the consensus process. In the consensus process, the technical committees are made up of representatives who are impacted by the requirements contained in the documents or who enforce the requirements contained in the documents. This latter group is referred to as “Authorities Having Jurisdiction” or AHJs.

The consensus process requires that the technical committees be “balanced” and that the codes and standards organizations have a process that allows for meaningful public review and input. Balanced means that no individual group or committee can have membership in excess of one-third of the committee membership. This is to ensure that no sector of those impacted by the codes or standards or who regulate the industry can dominate the technical committee.

Typically, those groups who are on the committees are **users**—those who pay for complying with the code or standard; **manufacturers**—those whose equipment systems/materials are regulated or required to be installed; **special experts**—those who design or consult in the design of buildings and systems; **enforcers**—those who regulate the use of the codes and standards; **insurance representatives** and **research/testing representatives**—usually these are the

entities that test and/or list or approve the equipment or systems.

Higher educational facility representatives would generally be classified as users. Users historically are those who are most affected by the codes and standards, yet often are the group that is least involved in the codes and standards development process. I suspect many of the user groups who don't have a strong or active code advocacy program, such as the higher educational industry, do not have a program because they don't feel they can effect a positive outcome by participating. That could not be further from the truth. Those affected industries that have an active and sustained code advocacy program have each saved billions of dollars for their industry.

Industry groups who proactively and positively participate in the codes and standards development process can very much influence the process and outcome of what requirements are contained in the codes and standards. User groups collectively can be a powerful force within the process. Others who participate in the process, including the enforcing authorities, recognize that the users have to pay for the requirements in the codes and standards as the building owner. More importantly, others who participate in the process recognize that users best understand how their buildings should function and operate. Usually, if user groups are knowledgeable and reasonable, they can actually prevail in the process.

The other important ingredient is that whoever participates in the process must do so on a regular and long-term basis. You cannot expect to have an effective code advocacy program on a one-issue basis or with only a short time period of participation. Those user groups who have the most impact are those who have participated in the process for decades. (See the sidebar by Douglas Erickson on a brief description of the American Hospital Association's Code Advocacy Program.)

I have personally been involved in code advocacy for the American Health Care Association (AHCA), the national trade association for nursing homes. Just one example of AHCA's successful code advocacy program was when Federal Medicare & Medicaid Regulations in 1990 proposed adoption of a new edition of the NFPA (National Fire Protection Association) Life Safety Code that would be applied retroactively to every existing nursing home in the United States. In the proposed rule, the government estimated that the cost impact on the nursing home industry would be less than \$100 million. A study by the industry identified 13 requirements in the Life Safety Code for existing buildings that, if applied, would cost \$970 million, significantly more than the government's cost estimate. The proposed rule never went to a final rule.

In the meantime, AHCA, through its Code Advocacy Program, had these 13 requirements in the Life Safety Code for existing nursing homes changed without reducing the level of safety. The Federal Government again came out with a pro-

posed rule, which adopted the newer and changed the 2000 Edition of the Life Safety Code. The cost impact of the 2000 Edition on existing nursing homes was \$48 million, representing a savings of \$922 million from this one code advocacy effort.

The ASHE Experience

By Douglas Erickson, FASHE. The American Society for Healthcare Engineering (ASHE) of the American Hospital Association (AHA) has had a 30-year history of active advocacy on codes and standards. Within this 30 years it is estimated that there has been \$62 billion in direct capital cost savings for compliance with a number of standards and regulation-making bodies. ASHE's advocacy is not simply about saving money at the cost of safety. It is about intelligent interpretation of existing codes to ensure the most cost efficient means and methods to meet the letter and intent of the codes allowing for cost effective management of our environments. Besides just existing codes, advocacy extends to analyzing and influencing code revisions before they are adopted as new codes. ASHE members and staff serve on numerous national committees to provide expert advice on proposed code revisions and proposed new codes that impact healthcare facilities on a daily basis. This ongoing representation is critical to advocate that codes are based on scientific principles, empirical data rather than anecdotal stories, and special interest groups' competitive advantages that add little or no safety value. Through this process, obsolete standards have been repealed and performance-based standards (based on actual safety outcomes, not prescriptive language) have been adopted.

The most impressive advocacy effort was with the Department of Justice and the Americans with Disabilities Act Accessibility Board. ASHE/AHA was an active participant in the ANSI A117.1 standards development process; when proposed language was released from the disabled constituency groups, we were able to work side-by-side with these advocacy organizations and the experts on the standards committees to compromise on the number of patient rooms, treatment spaces, and parking spaces needing to be converted for persons with disabilities. We also had great cooperation in writing language to keep standard design practices for medical care facilities for fire warning and safety systems so that we did not jeopardize the quality of care by installing extremely loud horns in critical patient care areas or strobe lights in all occupied spaces. It is estimated that the cooperative work performed saved healthcare organizations over \$40 billion and made our buildings safer for use as medical care facilities by the staff and patients.

As previously stated, there is no such thing as a higher educational occupancy. That doesn't mean that proposals aimed specifically at higher educational buildings are not submitted. The two examples below are proposals currently in the National Fire Protection Association's system as proposals to change the requirements in the next edition of the Uniform Fire Code (NFPA 1) and the Life Safety Code (NFPA 101). Both these proposed changes are specifically aimed at higher educational residential buildings.

NFPA 101—Life Safety Code

Recommendation: Add a new 29.3.5.1 to read:

29.3.5.1 All existing dormitories shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 29.3.5.1.

NFPA 1— Uniform Fire Code

Recommendation: Add new text as follows:

20.8.2.6 Permitted and Prohibited Activities

20.8.2.6.1 Portable cooking equipment, candles, incense, and similar open flames or heat producing items shall not be permitted in student housing or student housing guest rooms or guest suites.

20.8.2.6.2 Permanent installation of cooking equipment approved by the AHJ shall be permitted.

20.8.6.3 Smoking shall be prohibited within student housing.

The NFPA Life Safety Code is the most widely used code in the United States for regulating existing buildings. Even when the Life Safety Code is not "legally" adopted in a given geographic area, it is used as the "standard of care" for existing buildings. The identified recommendation, if adopted, would require that all existing dormitories, not just high-rise dormitories, be required to be protected by automatic sprinklers. Please note that there is not even a "phase-in period," e.g. eight years to comply. Each of you can estimate the cost impact to your institution.

The second recommendation is to change the requirements in the Uniform Fire Code (NFPA 1). NFPA's Fire Code is the most widely adopted fire code in the United States, and the scope of the code is equally applied to both new and existing buildings. This is the code that fire officials apply to your

community. Although this is not the forum to go into details about the recommendation, I want to point out a few items. First of all, there is no definition in the Fire Code for "Student Housing," so your local fire official will decide what is to be considered as student housing. This could include both on- and off-campus housing, developer owned housing, Greek housing, campus owned single-family homes, etc. There is no exception in the recommendation, so you would not be permitted microfridges, microwave ovens, or toasters, even in apartments and single-family housing. You would require specific permission of the fire official to have stoves, ovens, etc. in kitchens of apartments and single-family housing. Smoking would be prohibited in "all areas" of student housing and you would be required to regulate the prohibition on smoking. The question you need to ask is, Who will represent higher educational facilities at the technical committee meetings and at the membership meetings when these two proposed recommendations are debated and voted upon?

Every code advocacy program must have two essential elements. The first element is a core of dedicated and knowledgeable member volunteers who will represent APPA on the technical committees and at the membership meetings of the codes and standards development organizations. The volunteers must represent APPA and not their individual institutions. By representing APPA, you would represent the industry and not your individual facility. Your membership would be classified as an "organizational" member representing many individual facilities allowing you a louder voice in the process than if you just represented one facility. The second element necessary in Code Advocacy as an organizational member is the organization, in this case APPA, would be required to have an internal mechanism to give direction to the volunteers who represent APPA. This internal mechanism would also be used to develop APPA positions on the various requirements contained in the codes and standards that impact your industry.

As previously stated, there are hundreds of codes and standards that affect your industry and dozens of organizations that develop these codes and standards. Compounding this is the fact that higher education campuses are comprised of buildings of multiple occupancies, with each occupancy having a different set of require-

ments. You would first need to decide which codes and standards have the greatest impact on your industry and devote your limited resources to those documents. It is most likely that "codes" have more impact on your facilities than "standards." Codes tell you "what" you have to do, and standards tell you "how" to do it. For example, a code would tell you the quality of indoor air you must maintain, while a standard would tell you how to design the systems so you can maintain your buildings to the quality set by the code. Another example would be that a code would tell one whether a building is required to have sprinklers, and a standard tells one how to install the sprinklers.

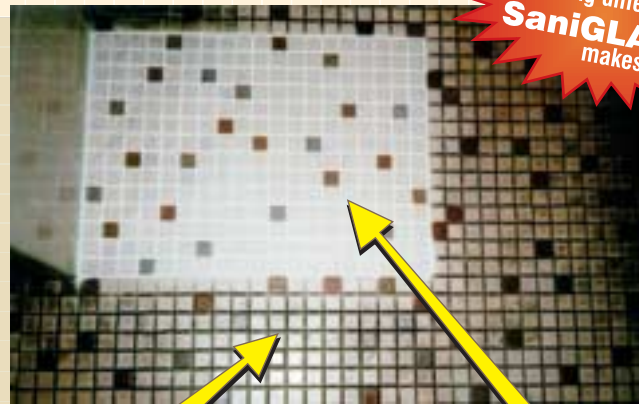
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Those who are not involved in code advocacy often have a misconception that the only purpose of code advocacy is to reduce the costs of construction and operation of buildings. This is not true. Code Advocacy is also working toward influencing the codes and standards to allow you to operate your buildings the way you, the owner, want to operate your buildings.

The codes that will most likely have the biggest impact on your campuses are building codes, fire codes, life safety codes, electrical codes, air quality codes, mechanical codes, elevator codes, accessibility standards, and energy codes. These are developed by such organizations as the International Code Council (ICC), the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), the American National Standards Institute (ANSI), the American Society of Mechanical Engineers (ASME), and similar organizations.

Although most government agencies use national consensus standards developed by the private sector, there are some government agencies, particularly federal agencies, that devel-

op their own standards and enforce them through regulations. For example, the American with Disabilities Act (ADA) is developed and enforced by the Department of Justice and uses standards developed by the Architectural Barriers Board. This would also be true for such federal agencies as the Environmental Protection Agency (EPA) and the Department of Energy (DOE). Code Advocacy Programs can have a positive impact even with federal agency regulations and standards. This is particularly true when several trade associations collectively address problems and issues with federal agencies.

Those who are not involved in code advocacy often have a misconception that the only purpose of code advocacy is to reduce the costs of construction and operation of buildings. This is not true. Code Advocacy is also working toward influencing the codes and standards to allow you to operate your buildings the way you, the owner, want to operate your buildings. For example, many of you may want to operate your buildings at a higher level of security, but the fire codes prevent you from providing this higher level of security. Other industries have had the same problem, but through their Code Advocacy Programs they were able to negotiate code changes to allow them to operate their buildings in the manner that is best for their industry.

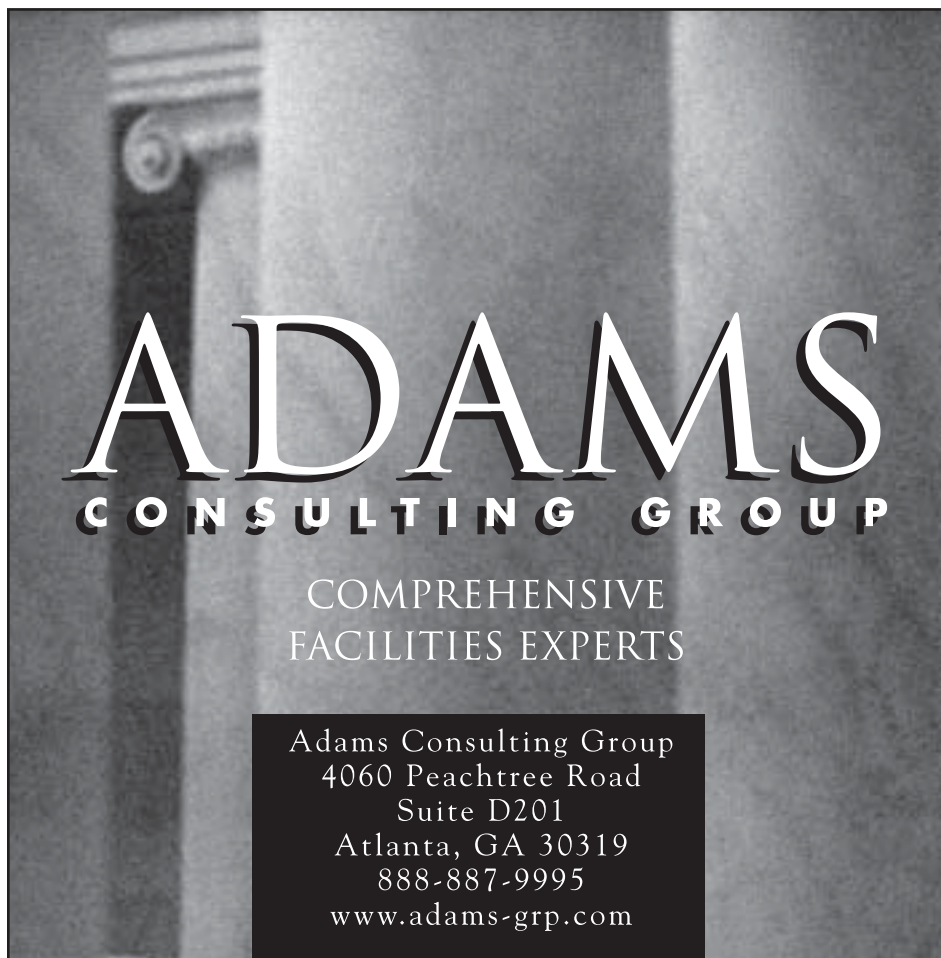
What are the major benefits of Code Advocacy?

- Reducing both construction and maintenance costs.
- Influencing the requirements in the

Codes and Standards.

- Increasing the industry's knowledge of the requirements of Codes and Standards.
- Fulfilling the mission of your association.
- Increasing knowledge to reduce liability.
- Eliminating unnecessary requirements.
- Making your job easier.
- Making sure your industry voice is heard.

Code advocacy need not be expensive. Many organizations, through educational programs, fully fund their Code Advocacy Program. Those members of your industry who are involved in the Code Advocacy Program become a cadre of knowledge members who can be used as instructors for income producing educational programs. For every dollar you invest in your code advocacy program, you will get back thousands of dollars in savings in the cost and operation of your buildings. It becomes a win/win arrangement for everyone. 🏢



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