

# Leveraging ASHRAE Standards for Facilities Operational Success

By David Handwork

Codes, standards, laws, and regulations largely dictate the planning, design, construction, and operations of the campus built environment. APPA has for many years recognized the significance of standards and codes, and the importance of providing a facilities management voice at the tables of standards development organizations (SDOs) such as the International Code Council (ICC), the National Fire Prevention Association (NFPA), and the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE). Having a voice of influence and input regarding SDO activities is a key mission for the APPA Standards and Codes Council (ASCC). Typically, the council's activities include responding to addenda and actions that could negatively impact facilities operations, or providing support or input into positive initiatives and enhancements.

In previous articles for “Code Talkers,” this author has often focused too much on the challenges that codes can present. It may be fair to state that most facilities managers view codes in a less than positive light—that is unfortunate. Therefore, it is appropriate to pose the question: How can facilities managers leverage standards and codes to enhance the safety, security, resiliency, and environmental sustainability necessary for operational success? Addressing this question for the entirety of standards and codes is too expansive for a single article, and my expertise is limited to ASHRAE-produced standards. To refocus the question: How can APPA members and facilities managers successfully leverage ASHRAE standards? Two basic principles address this question:

**1. Being cognizant of the positive intent of ASHRAE standards, then applying them as best practices in campus operations.** For example, Standard 62.1 (building ventilation) provides healthier indoor environments for building occupants. Healthy learning spaces ensure that students, faculty, and staff are



productive in teaching and learning experiences. Data from numerous research projects supports the improved occupant productivity outcomes and satisfaction resulting from properly ventilated spaces. Standard 90.1 (energy performance) provides a minimum standard for energy conservation, while comparatively, Standard 189.1 provides optimized energy performance. Depending upon utility rates, both standards can be justified by their attractive return on investment, ultimately reducing operating costs. Other standards focus on human safety as an operations responsibility, such as Standard 188, “Legionellosis: Risk Management for Building Water Systems.” This standard provides field-validated best practices for minimizing an organization’s risk of legionella occurrences in new construction and older buildings. Facilities managers who commit to applying these and other standards’ positive intent will position an excellent built environment for students, visitors, faculty, and staff.

**2. Leveraging APPA’s relationship with ASHRAE to engage ASHRAE activities through APPA membership.** In 2016, APPA’s and ASHRAE’s Board of Directors affirmed and signed a Memorandum

of Understanding that opened up organizational collaboration. To date, both organizations have engaged on topics including Total Cost of Ownership (TCO), ASHRAE's Living Labs initiative on university and college campuses, ASHRAE education programs at APPA U, ASHRAE's Building Energy Quotient (bEQ) initiative, which couples academic programs with facilities operations for building audits and labeling, and an APPA representative seat on the ASHRAE President-Elect Advisory Committee. This emerging relationship offers membership from across APPA and ASHRAE access to important programs and initiatives. For example, the APPA Standards and Codes Council organized an ASHRAE Work Group for engaging standards development and actions. The Work Group is fairly new, but adds the maturity and active contribution of APPA members, representing the perspective of facilities managers on code development and maintenance. This cooperation will further enhance organizational outcomes for both APPA and ASHRAE, and will subsequently provide additional owner-centric technical training to APPA

members that is not currently or readily available. As this collaboration grows and strengthens, both memberships will reap the benefits of educational programs, networking, research, professional development, and improved built environments.

Embracing these two principles does not negate interaction and engagement when any standard or code creates moderate or unreasonable challenges for facilities managers. Acquiring a healthy, positive view of the constructive aspects of codes will help managers maintain a balance with an equally healthy discernment of challenging codes and standards issues. ASSC invites all interested members to participate in the ASHRAE Work Group or other work groups that match member interest and expertise. §

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