



2018-2019 APPA Standards & Codes Annual Report



A Progress Report on Facilities Standards & Codes Development for Educational Facilities & Infrastructure



APPA Standards and Codes Council (ASSC)

Annual Report

April 2018 – March 2019

Members of the ASSC

Brooks Baker III, chair, University of Alabama – Birmingham (retired)

David Handwork, Arkansas State University

Clint Lord, Arizona State University

Dana Petersen, University of New Hampshire (retired)

Alan Sactor, University of Maryland – College Park

Ted Weidner, Purdue University

Kris Zimmerman, University of Houston – Downtown

Billie Zidek, APPA Staff Liaison

During the past year the council accomplished the following:

- Created thought provoking articles through the Code Talker section of the APPA Facilities Manager magazine.
- Provided timely information to the APPA membership through its ASSC Updates on changes to NFPA and ICC standards and codes.
- Surveyed the APPA membership to determine what codes and standards are most important to our facilities.
- Surveyed APPA membership and produced a report that was sent to the NFPA Research Foundation to assist in making changes in NFPA 70 tables for branch loads.
 - APPA was represented at the NFPA 70 WG meetings in San Diego, CA last fall to begin discussing the branch loads for today's facilities.
 - As a result of our participation APPA was selected to participate on a panel that selected a vendor to conduct interviews to produce a report that will be presented to the NFPA 70 Work Group as testimony to why the tables need to be changed. Louis Galante, Iowa State University was the primary representative for APPA on the panel. Billie Zidek served as alternate.
- Conducted monthly webinars of interest to our members (see statistics later in this report).
- Provided comments on the ICC Group A codes.

Work Groups under the auspices of the ASCC are:

ASHRAE Work Group
NFPA Work Group
I Codes Work Group
Informatics Work Group
ISO TC 267 Work Group
TCO Work Group
Terms and Definitions Work Group

To follow is a brief description of what each of the work groups have been working on.

ASHRAE Work Group

David Handwork, chair, Arkansas State University

The work group continues to monitor the following standards:

62.1	Ventilation for Acceptable Indoor Air Quality
90.1	Energy Standard for Buildings Except Low-Rise Residential Buildings
100	Energy Efficiency in Existing Buildings
188	Legionellosis: Risk Management for Building Water Systems
189.1	Standard for the Design of High-Performance Green Buildings
202	Commissioning Process for Buildings and Systems

NFPA Work Group

Clint Lord, co-chair, Arizona State University

Kris Zimmerman, co-chair, University of Houston – Downtown

The work group continues to review changes to the NFPA standards identified by the response to the Standards & Codes survey conducted in the fourth quarter of 2017. The codes currently being monitored are:

- 1 Fire Code
- 3 Recommended Practice for Commissioning of Fire Protection and Life Safety Systems
- 13 Standard for the Installation of Sprinkler Systems
- 25 Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems
- 70 National Electric Code
- 72 National Fire Alarm and Signaling Code
- 80 Standard for Fire Doors and Other Opening Protectives
- 101 Life Safety Code
- 3000 Standard for Preparedness and Response to Active Shooter and/or Hostile Events
- 90A Standard for the Installation of Air-Conditioning and Ventilating Systems

When changes are announced the NFPA work group provides the APPA membership with the change via the ASCC Update notices. We have currently sent 12 updates to the membership since starting these in August of 2018.

I Codes Work Group

Dana Petersen, chair, University of New Hampshire (retired)

With the help and guidance of Bill Koffel, Koffel Associates, the Work Group, comprising facilities representatives from nine universities, two community colleges, one public school district, and two business partners, reviewed and debated 63 different change proposals. In the end, the group recommended that APPA members support 37 of the proposed changes and oppose 24, and took a neutral “no-comment” position on the remaining 2. These positions were taken to the Committee Action Hearings in Columbus, Ohio. One proposal that was amended (F263, making owners responsible to institute and enforce a fire safety plan for areas under construction) was opposed, and while the amendment made noncompliance fines to owners optional and not mandatory, this did not overcome the many other objections the Work Group and the Council had to this proposal.

The changes to the IFC suggested in proposals F263 and F264 could cause additional costs. If the IFC is not an enforced code in your area, these changes will not affect you. However, if it is, you can expect a substantial increase in your construction costs, and most likely a need for larger schools and districts to create an entirely new, staffed department for round-the-clock fire inspectors and plan writers when the IFC’s 2018 edition is adopted in your jurisdiction. The Council drafted and approved a public comment in an attempt to lessen the impact of these changes by requiring the fire-safety plans only on projects of Type III or Type V construction, and not requiring a fire watch so long as an active alarm system is in operation.

A survey was sent to the APPA members and it was determined that the work group should continue to fight this change when the Group A codes come up for review in a few years.

The ASCC will send an Action Alert and Call to Action to all APPA members who attend the upcoming ICC meetings in New Mexico and Nevada of the concerns found during the review of the Group B codes.

Informatics Work Group

Marcus Hogue, co-chair, University of Texas – Austin

Erik Backus, co-chair, Clarkson University

After a brief hiatus to work on the revision of APPA’s Facilities Performance Indicator (FPI) project and the total cost of ownership standards, the group is reconvening to begin work on a data dictionary. The group will be presenting this project at the upcoming APPA Annual Conference in Denver, CO.

ISO TC 267 Work Group

Casey Martin, ANSI US/TAG to ISO/TC 267 chair, Jacobs Engineering Group

Ted Weidner, ANSI US/TAG to ISO/TC 267 vice chair ISO TC 267 Work Group 3 chair Purdue University

TC 267 is working on two new standards, WG4 – Development of Facility Management Strategy, and WG5 – Influencing behaviors for improved facility outcomes and user experience. Ted is leading WG5 and they anticipate having a draft standard available this year for comments. While the group would like the draft standard to be available after the June meeting (in Dublin, IR) it may not be until after the November meeting (in St. Petersburg, RU). Other APPA members involved in WG5 are: Casey Martin and Jim Whittaker.

TCO Work Group

Deke Smith, co-chair, DKS Consulting, LLC

Ana Thiemer, co-chair, University of Texas at Austin

APPA 1000™ Total Cost of Ownership for Facilities Asset Management (TCO)

APPA published Part 1 – Key Principles of the ANSI recognized standard in late 2017. The work group was then restructured adding a few new members replacing those unable to continue. The new work group began work on Part 2 – Implementation. While Part 1 laid out the overarching relationships and basics of the principles for TCO, which included developing a framework for structuring costs, Part 2 is building upon the original work and is laying out the steps and key elements needed for successful implementation. Work has progressed well, and a draft document is now in its final rounds of comment and editing prior to expected approval by the work group for distribution for public comment which is expected within the next couple of months. The work group is confident that we will be receiving ANSI recognition for the work and publishing Part 2 long before the end of 2019. The work group members have been presenting generic aspects of the work at several APPA and broader industry events. The initial training efforts will begin in June 2019. Software vendors will also be briefed on the standard shortly so that they can begin the software development process to better support the standard once both parts have been published.

Terms and Definitions Work Group

Glenn Smith, chair, Bryn Mawr College (retired)

This work group was established to create a database of nationally recognized terms and definitions used by facilities, building or supporting infrastructures to be housed on the APPA International website. Areas of application for this standard include project delivery (planning, design, construction and commissioning), maintenance and operations, energy, utilities, environmental stewardship, planning, design, and construction. To date the database contains more than 1400 words and definitions. The sortable database will replace the current APPA Glossary and be live on the new APPA website under the Library section. The work group continues to meet monthly and adds 50-100 words to the database.

The database is sortable by the four core areas identified by APPA. It also contains a link to reference articles on the subject in our Library Archives.

ASCC Webinars

Hurricane Harvey - Catastrophic Climate Preparation and Recovery - What University of Houston - Downtown Experienced

Thursday, March 7, 2019

Presenter:

Kris Zimmerman, O&M Director, Mechanical, Electrical, Plumbing Facilities Management
University of Houston Downtown

High-Performance Standing Seam Metal Roofing System (AIA accredited)

Thursday, February 14, 2019

Presenter:

Phil Chmielecki, National Sales Manager, Merchant & Evans, Inc.

Variations in State Code Updates Reveal Neglect of Electrical Safety

Thursday, January 10, 2019

Presenters:

Meghan Housewright, NFPA Fire & Life Safety Policy Institute Director
Jeff Sargent, NFPA National Electrical Code Specialist

NFPA 3000 - Active Shooter/Hostile Event Response Program (ASHER)

Thursday, October 11, 2018

Presenter:

John Montes, Emergency Services Specialist, National Fire Protection Association (NFPA)

Resources to Support Our Changing World

Tuesday, June 19, 2018

Presenter:

Michelle Ellington, CFTA President

The Environmental Management Guide for Educational Facilities

Thursday, June 14, 2018

Presenters:

John DeLaHunt, MAB, ARM, University of Texas, San Antonio
Scott Thomaston, MS, MPH, Emory University

An Introduction to Mass Notification and Emergency Communication Systems

Thursday, April 12, 2018

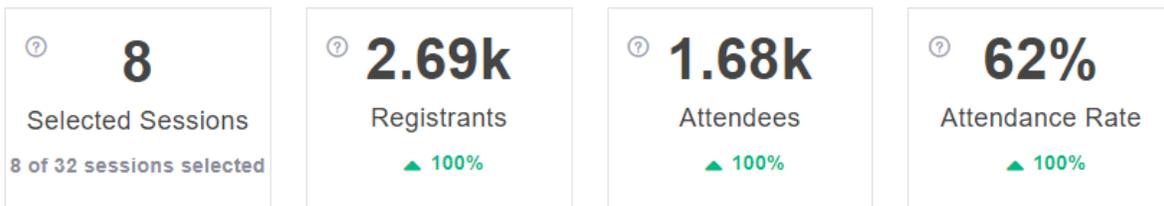
Presenter:

Richard Roberts, Industry Affairs Manager, Honeywell Security and Fire

Overall Webinar Statistics

Since beginning the webinar series we have registered over 11,000 people and given out over 2,000 CEU certificates.

Date	Title
04/12/2018	An Introduction to Mass Notification and Emergency Communication Systems
06/14/2018	Management Guide
06/19/2018	Resources to Support Our Changing World
10/11/2018	NFPA 3000
11/08/2018	AHU Refurbishment for Compliance with NFPA and ASHRAE
01/10/2019	Falling Behind on Electrical Safety
02/14/2019	High Performance Standing Seam Metal Roofs (AIA accredited)
03/07/2019	Hurricane Harvey – Catastrophic Climate Preparation and Recovery - What UHD Experienced



2018 Conference Sessions

APPA's Total Cost of Ownership Update: Putting TCO to Work on Your Campus

NFPA 3000: Standard for Active Shooter Response

Ensuring You Are Ahead of The Curve – CFATS Compliant

Proposed 2019 Conference Sessions

OSHA Top 10 Violations

In September 2018, OSHA released its latest "Top 10" list of most frequently cited workplace violation. While most of the list remains unchanged, personal protective equipment violations (1926.102) were added to the list this year. Triumvirate's experts will analyze the most common OSHA violations, as they relate to Colleges and Universities, and the overall state of EHS regulatory compliance in 2018.

Learning Objectives:

- 1) An overview of the current “Top 10” list
- 2) An analysis of regulatory compliance in 2018 for Colleges and Universities
- 3) Case studies of these violations on College and University campuses
- 4) Recommendations for avoiding OSHA citations and maintaining compliance

Presenter: Mark Liffers, Triumvirate Environmental

TCO Part 2 – Beyond the Principles

APPA has been developing a 2 part new ANSI recognized standard for Total Cost of Ownership that allows owners to better manage their asset portfolios by looking at the impact of decisions on the life of their asset. TCO allows owners to plan for upcoming costs so that better budgeting can be accomplished and cost spikes can be managed. Most facilities and infrastructure today are focused on initial or first cost, and a low initial cost can have significant negative long term cost implications. This session will allow attendees to better understand the benefits of long term costing strategies. The concepts presented are for both new and existing facilities and infrastructure.

Learning Objectives:

- 1) The benefits of Total Cost of Ownership
- 2) Strategies for implementing a TCO approach
- 3) The differences between first cost, Life Cycle Costing (LCC) and TCO.
- 4) Taking advantage of big data

Presenter: Ana Thiemer, co-chair TCO Work Group, University of Texas at Austin

Successfully Leveraging ASHRAE 90.1 Energy Standard for Your Campus Operations

Senior Facilities Officers, facilities energy management staff, and most general operations staff have some recognition of the ASHRAE 90.1 Energy Standard. However, most of facilities operations staff are not aware how to effectively leverage Standard 90.1 for design, construction, and operations of buildings optimizing energy conservation and Total Cost of Ownership. This presentation will highlight strategies for facilities managers to understand basic positive elements of 90.1 for new buildings, as well as applying operational concepts toward improving existing buildings. The presentation will also include “how to” guidance for engaging the 90.1 process for owner centric enhancement and addendum input.

Learning objectives:

- 1) The participant will understand the basic requirements of 90.1 Standard, and options for applying to new construction and renovations.
- 2) The participant will understand how to leverage 90.1 for improving energy efficiency on existing buildings.
- 3) The participant will understand the ASHRAE 90.1 continuous maintenance process.
- 4) The participant will understand how to participate in the 90.1 continuous maintenance process utilizing the APPA / ASHRAE relationship.

Presenter: David Handwork, ASHRAE Work Group Chair, Arkansas State University

Understanding NFPA 3000™ (PS) Standard for Active Shooter / Hostile Event Response Program Update

In response to the increasing number of mass casualty incidents in our world, the National Fire Protection Association (NFPA) released NFPA 3000™ (PS), Standard for an Active Shooter / Hostile Event Response (ASHER) Program to help communities with unified planning, response and recovery. Since its debut, schools and universities have taken a keen interest in learning more about creating a cohesive, well-defined ASHER strategy with local authorities. Developed by law enforcement, fire, EMS, facility security, hospitals, universities, private business, and federal agencies, NFPA 3000 provides guidance on the comprehensive plans, policies, and procedures that should be established before, during and after the unthinkable happens. NFPA Emergency Services Specialist John Montes, staff liaison to the technical committees for EMS, Fire Service Occupational Safety and Health, Hazardous Materials Response, and Cross Functional Emergency Preparedness and Response, explains why everyone has a role to play in keeping people and properties safer from harm.

Presenter: John Montes, Emergency Services Specialist, National Fire Protection Association (NFPA)

Facilities Informatics Revisited – Your Data Dictionary and More

Since its launch in 2014, the APPA Facilities Informatics Working Group has been looking at how best to make data come alive in facilities organizations. From helping to explain informatics maturity to helping to guide the next generation of the APPA FPI to demonstrating tools that can aid in data visualization, informatics is coming alive on many campuses across the membership. Now we have to get back to basics, developing an all-encompassing data dictionary for facilities organizations, across colleges, universities and beyond. This session will discuss how we intend to develop this tool and how you can be a part of the effort.

Learning Objectives:

- Informatics next steps
- How we plan to use Informatics to complete APPA FPI and implement TCO
- What is a data dictionary and why it is important
- Explaining why software systems have issues intergrading data sets from different vendors

Presenters:

Markus Hogue, co-chair, Informatics Work Group, The University of Texas at Austin

Erik C. Backus, co-chair, Informatics Work Group, Clarkson University