THE CRUCIAL ROLE OF STANDARDS AND CODES
They may not be sexy, but standards and codes keep pools and spas safe. Understanding them keeps your business safe as well

By the PHTA Recreational Water Quality Committee, in collaboration with the PHTA Technical Committee

LAWS, CODES AND standards play an essential role in maintaining safe bathing environments by addressing residential and public design and construction; maintenance and operation requirements; and best practices. Therefore, it is important to understand the difference between federal, state and local laws and codes, model codes and industry consensus standards.

Consensus standards are used in most industries, including pools, spas, hot tubs, interactive water play features and other aquatic venues. They are developed by writing committees comprised of subject matter experts and reviewed through a recognized consensus process, such as the process established by the American National Standards Institute (ANSI). They serve as voluntary guidelines but can become mandatory if adopted as law, as are many ANSI/PHTA/ICC standards.

State and local codes are a form of regulation and are mandatory where adopted. Some states will adopt model codes, standards or other provisions for voluntary use, and allow local jurisdictions the ability to make them mandatory.

Many states have adopted building codes for residential pools, ranging from individual codes addressing barrier and suction entrapment provisions to a full-scale set of regulations addressing all aspects of design and construction. In the public sector, 47 states have statewide regulations addressing public pools, spas and hot tubs, with three states deferring to localities to consider. Numerous counties and municipalities have developed their own codes for the construction and/or for operation and maintenance of public pools, in addition to statewide requirements. These codes are written by government agencies (typically building and/or health departments), following applicable state administrative procedural requirements such as allowing for public comments. Many of the PHTA standards are referenced in these various codes.

Model codes, such as the International Swimming Pool and Spa Code (ISPSC), are similar to standards in that they only become mandatory once adopted in a given jurisdiction.

1 ANSI/PHTA/ICC standards adopted by jurisdictions will still be listed as ANSI/APSP/ICC standards – when a new edition is published and then adopted by a jurisdiction, the PHTA name will be reflected.
There are nuances in each of these documents and their hierarchy. Generally, laws and codes establish what is to be regulated. Standards establish accepted best practices and may supplement or explain means of complying with laws and codes.

**FEDERAL LAWS AND REGULATIONS**

Laws adopted by Congress and U.S. agencies take precedence over any conflicting state or local requirements. Examples include the Virginia Graeme Baker Pool and Spa Safety Act (VGBA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Americans with Disabilities Act (ADA), as well as regulations or rulemaking issued by the applicable Federal agencies, such as the U.S. Consumer Product Safety Commission (CPSC), Environmental Protection Agency (EPA), Department of Energy (DOE) and Department of Justice (DOJ). In some cases, Federal laws or rules preempt all state or local regulation as in the case of FIFRA. In other cases, local jurisdictions can require more but not less regulation, such as the Virginia Graeme Baker Pool & Spa Safety Act (VGBA).

**STATE LAWS AND CODES**

*(agency rules or local ordinance)*

A code is a form of regulation at the state or local level, via agency rulemaking or local ordinance processes. It defines what must be done and how it is to be accomplished. State agencies are empowered or directed by state law to develop codes or delegate the task to local authorities. Codes typically require inspections to ensure compliance. Codes can also include references to specific standards, or parts thereof, thereby making those standards part of the code and legally enforceable.

Codes addressing pools, spas and hot tubs are developed and revised at the state or local level, under the applicable state procedures, with opportunity for public comment and hearings. PHTA monitors these processes and will often propose changes or provide alerts when code development occurs. These provisions are mandatory in most cases and enforced by the Departments of Buildings and/or Health.

**MODEL CODES**

A model code is a type of code specifically created for establishing or updating state and local codes. Model codes are designed to be easily adopted either as written or with state or local modifications. Model codes only become legally enforceable after they are formally adopted by a state or locality.

The International Code Council (ICC) develops model codes for use throughout the world, including the International Residential Code, the International Building Code and numerous specialty codes, such as the International Energy & Conservation Code and the ISPSC. The first edition of the ISPSC was published in 2012 (2015, 2018 and 2021 editions now also exist). The ICC uses a Government Consensus process, allowing for proposals from the general public, which are...
considered by a standing committee and by the general membership to ensure due process. In addition, there is an appeals process. The ISPSC is largely derived from or cites the various ANSI/PHTA/ICC Standards.

Other model codes include the Model Aquatic Health Code (MAHC), which is developed and updated by the Centers for Disease Control and Prevention (CDC) based on formal recommendations from the Council for the Model Aquatic Health Code (CMAHC).

The first edition of the MAHC was published in 2014. Recommended updates to the MAHC are initiated every three years by the CMAHC. Proposed changes and improvements to the MAHC are solicited from CMAHC membership, the public and through CMAHC ad-hoc committees. A technical review committee provides initial feedback on all code requests (CRs). At a triennial conference, CMAHC members hear presentations, review and discuss some of the CRs; approximately three weeks later all final edited CRs are posted for CMAHC members to vote, and voting lasts a month. The CMAHC board of directors then reviews the voting results and delivers recommended MAHC changes and rationale to the CDC for further review and approval before inclusion in the MAHC.

The CDC’s decisions are final and there is no appeals process. This is permitted because the MAHC is a model code only and not a regulation. For this reason, it is not subject to the Administrative Procedure Act (APA) that requires federal government agencies producing regulations to utilize existing codes and standards when available.

Federal agency staff are authorized and encouraged to participate, vote and even chair external codes and standards development committees. For example, the CPSC actively engages in the ANSI/APSP/ICC-16 revision process and participates in the development of other ANSI/PHTA/ICC standards. CPSC regulatory activity, including the adoption of ANSI/APSP/ICC-16, is governed by the APA.

In developing and updating their mandatory codes, jurisdictions often look to model codes, such as the ISPSC, which has been adopted by 14 states and nearly 400 local governments to date.

**STANDARDS**

Standards are consensus guidelines which specify minimum requirements for manufacturers, installers, service professionals and users. According to the National Institute of Standards and Technology (NIST), a standard is:

The definition of terms; classification of components; delineation of procedures; specification of dimensions, materials, performance, designs or operations; measurement of quality and quantity in describing materials, processes, products, systems approvals, services or practices; test methods and sampling procedures; or descriptions of fit and measurements of size or strength.

Most standards affecting the pool industry are developed by PHTA, using
the ANSI consensus process. Other component specific standards are published by ASTM International, NSF International and UL, among others. ANSI/PHTA/ICC standards are “voluntary consensus standards” specifying the minimum guidelines industry experts consider necessary and appropriate. The Office of Management and Budget (OMB) Circular A-119 and the National Technology Transfer and Advancement Act establish and clarify U.S. policy to increase Federal reliance on voluntary consensus standards. According to NIST, these standards are developed in a manner that is “open and has balance of interest, due process and an appeals process.” These standards rely on consensus, which NIST defines as “general agreement but not necessarily unanimity.”

Since 1983, PHTA has been the ANSI-accredited standards development organization for the swimming pool and hot tub industry. PHTA’s standards development is a multi-step process based on established science and technology, is open to the public and is audited by ANSI every five years. The resulting standards are consensus documents which undergo a rigorous technical review and provide participants the right to file a procedural appeal.

Draft standards are created and modified by the respective PHTA Standard Writing Committees (SWCs). SWC membership is open and consists of industry experts, the general public and other interested parties. When completed and approved by vote of the SWC, the draft standard is submitted for review by PHTA’s Technical Committee (TC) for accuracy and consistency. The TC consists of the chairs of the SWCs and additional subject matter experts. The TC can either vote to approve the draft or send it back for revision and resubmission.

Once approved by the TC, the draft standard enters the consensus process. It is submitted to PHTA’s Standards Consensus Committee (SCC) and is also published for public comment through a formal ANSI public review. All comments are considered by the SWC and the SCC. Responses to the comments are prepared by the SWC Chair and are reviewed by the SCC Chair and Vice Chair. A final consensus vote of the SCC is required to approve the standard. The standard is published after SCC ballot and Public Review documentation is submitted to ANSI for review.

**YOUR RESPONSIBILITY**

Industry members are required to comply with the applicable laws and codes in the jurisdictions in which they operate or in which their products are intended to be used. They should also be familiar with the ISPSC and the applicable ANSI/PHTA/ICC Standards, even where they have not yet been adopted. These documents represent the best practices and knowledge of the industry experts and will often be used in the event of a dispute or lawsuit — even in places where they have not been adopted.