When President George W. Bush signed the Virginia Graeme Baker Act into law in 2007, the pool and spa industry gave itself a well-deserved pat on the back for its part in helping craft the bill. No longer would commercial pools and spas pose the suction-entrapment hazard that injured or killed a small-but-preventable number of people every year, including the namesake granddaughter of former Secretary of State James Baker, who drowned after becoming trapped on a hot tub drain in 2002.

But while the law altered the way commercial pools were plumbed and made them safer, it contained no mandatory provisions for backyard pools. That has never sat well with Carvin DiGiovanni, vice president, technical and standards, for APSP.

“There are only 300,000 commercial pools out there that VGB applies to. But you’ve got many more swimmers and bathers in backyards. The number is anywhere from 14 million to 18 million residential pools and spas,” he says. “What’s being done to protect them?”

DiGiovanni has a ready answer to his rhetorical question: the International Swimming Pool & Spa Code.

The ISPSC, jointly developed by APSP and the International Code Council, establishes minimum regulations using time-tested methods embedded in APSP/ANSI standards, along with provisions of several international ICC codes, including the Residential Code, the Building Code, the Plumbing Code and the Mechanical Code. The code is voluntary, but when adopted by a city, county or state it has the force of law.

“The pool code book is about 80 pages, and 95 percent of the language comes directly from all 13 sections of our APSP/ANSI standards,” DiGiovanni says. “The only standard we added to the code book in its entirety is the APSP/ANSI-7, which contains the design and construction criteria to address suction-entrapment avoidance. That’s why we’re very confident that it’s going to be a tremendous resource for any jurisdiction that adopts it. They’re going to be on par or better than what VGB does for commercial pools.”

Steve Barnes, director of science and compliance for AquaStar Products in Ventura, Calif., is another safety advocate and backer of the ISPSC. He points out that...
the code book goes well beyond addressing safety, and says it has the potential to transform the industry by standardizing pool and spa construction practices and raising the level of professionalism across the country.

“This code is probably one of the most important documents ever to come out for the industry,” he says. “It contains everything a pool contractor needs, and we are really dependent as an industry and as a society on pool contractors who are in these backyards where the federal government can’t reach.

“Obviously safety is most important, but it also addresses making the pools operate efficiently, and if we can make pools more efficient and effective we can only grow the industry.”

ADOPTION EFFORTS

DiGiovanni wants to get the code adopted nationwide, but since the federal government’s reach doesn’t extend to people’s backyards, they are focusing effort on the statehouses.

So far, only Virginia has adopted the code on a statewide level, while the District of Columbia made it a voluntary standard. Additionally, Georgia and South Carolina now recognize ISPSC as an alternative to their existing codes.

DiGiovanni and others at the APSP and ICC are confident that once the periodic cycles for adopting new codes roll around (like the Plumbing Code, the Building Code and the Residential Code), those states and others will choose to adopt the new pool and spa code.

“There’s a code cycle about every three years, and states will only really be interested in this when their cycles come up,” he explains. “The ones that are due this year, they will be taking a look at it and we will get in there and remind them that we’ve got this pool and spa code, and it would be a good idea to sweep it in along with the other ICC codes. We’ve done all the homework for them.”

Virginia was a relatively easy sale, because the state had no existing code language governing pools and spas.

Jason Vaughan, president of National Pools of Roanoke and a third-generation builder there, is enthusiastic about the standard’s recent adoption into statewide code. It hasn’t meant a lot of changes to the way he does things, though.

“I’ve used the APSP standards for years as my company “code” for all my installations, even though they weren’t necessarily required code from an inspection standpoint,” he says. “Now that the ANSI/APSP standards are in the ISPSC and mandatory, it will create a level playing field.”

Previously, Vaughan says, that field has tilted in favor of contractors willing to cut corners in order to underbid him and others who build according to APSP/ANSI standards.

“Obviously safety is most important, but it also addresses making the pools operate efficiently, and if we can make pools more efficient and effective we can only grow the industry.”
Field Checklist for Identifying Suction Entrapment Hazards

Start Here
Must End on FINISH

What is the Maximum System gpm of the single-pump system? [☐] gpm
See Instructions on reverse page

Are there multiple outlets? [☐] NO
See Instructions on reverse page

Are all outlet covers in accordance with ANSI/APSP-16? [☐] YES

WARNING! Suction Entrapment Hazard Non-compliant Outlet(s)

ACTION REQUIRED

This system requires ANSI/APSP-16-compliant suction outlet fittings. Unblockable outlets may be certified by a Registered Design Professional (RDP) or honored as having covers/grates, sumps, and fastening systems in accordance with ANSI/APSP-16.

Manufactured product required to be listed and tested per ANSI/APSP-16 requirements. Each replacement cover must have a flow rating equal to or greater than the Maximum System GPM (See Section 4) or the Maximum System GPM may be permanently reduced below the cover flow rating by replacing pump or permanently restricting the pump discharge flow, provided the maximum turnover time is not exceeded.

WARNING! Suction Entrapment Hazard

Is the center-to-center distance between the outlet(s) at least 36 inches, or are the outlets on separate planes?

Go to VACUUM FITTING

Is there a dedicated vacuum cleaner fitting? [☐] NO

Install or replace with fitting lid tested to V4MD-SPS-4.

Is there a dedicated vacuum cleaner fitting? [☐] YES

WARNING! Suction Entrapment Hazard

Choose at Least One Option

What is the Maximum Combined gpm of the multi-pump system?

Does each dual outlet system have a cover with a flow rating equal to, or greater than, the System GPM? [☐] YES

Go to VACUUM FITTING

Is there a dedicated vacuum cleaner fitting? [☐] NO

Convert single suction outlet to return inlet by changing the piping, provided that the system piping and performance are capable of handling the full system flow.

WARNING! Suction Entrapment Hazard

Choose at Least One Option

The Association of Pool & Spa Professionals®

October, 2013

Complete [☐] NO

ACTION REQUIRED

This field checklist provides information and a systematic process that will help identify and eliminate suction entrapment hazards in swimming pools, wading pools, spas, hot tubs and catch basins. It's appropriate for use by service companies, builders, installers, facility owners/operators, home inspection specialists, parks and recreation personnel, and others who are responsible for pool and spa safety.

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Provide feedback on these codes.

The hope is that states with mature pool markets like Florida, California, Texas and Arizona will fall into line one by one, dominio style, joining rural states and the 52 adopting municipalities until the code reaches full saturation in the United States. Code cycles will always provide an opportunity for backers to push for ISPSC adoption, but nobody is saying it will be easy, or that it will happen quickly. For the sake of making residential pools and spas VCB compliant now, DiGiovanni is pushing for sooner rather than later — knowing safety advocates would agree.

What about the Builders?

DiGiovanni admits that before he can sell the idea of regulation to a wide swath of code officials, he must win over pool and spa professionals and get them to follow the rules voluntarily. Convincing them to build to the code without being forced to hinges on selling the idea that doing so will be beneficial to their company on many fronts. “The endgame is improved safety and better products in people’s backyards,” he says.

A close reading, however, reveals the code does not excessively burden builders; the code was carefully crafted with the interests of homeowners and pool professionals in mind.

“The nice thing about this code is there’s not a lot of extra stuff in there that will aggravate people,” Barnes says. “It focuses on minimum quality and all of that but basically says, ‘Don’t do these things that are a waste of energy and are unsafe,’ and leaves the rest up to the builder.”

This approach stands in stark contrast to the way code reads in Florida, according to Barnes.

“In Florida,” he explains, “building code is very prescriptive: ‘You must have a 12-inch gutter, you can’t have any benches.’ So you look at the resorts there and you have the most boring pools in the world. The other end of the extreme is Las Vegas. They are equally safe, but built with a different philosophy. The health department just wants the pools to work. ‘OK, you want to put a stripper pole in the middle of the pool? We’ll make it work.’”

“The ISPSC is more like the latter. It tells builders what they need to avoid, but then turns them loose. It gives them a checklist for piping, pump sizing, energy efficiency — they know if they follow the code, they’ll pass inspection. They don’t even need to understand it. Then they can go about picking tile and decking and all that good stuff that makes people want to invest in a backyard pool.”

In the end, all agree, a uniformly regulated residential pool and spa industry will raise the tide and lift all boats. Those that aren’t seaworthy won’t survive.

“The ISPSC is sorely needed throughout the country,” Johnson says. "And as someone who has been involved in building and in standards, it is an extremely well-written code. It embraces the requirements in APSP-5, APSP-7 and the APSP-16 energy standard. If we could get it adopted into all the states or municipalities, the quality of the products we produce and the level of customer satisfaction would skyrocket. And so would safety."