

## Ask the Expert

Alvaro G. Mendoza, Commercial Energy Specialists, Inc.



Welcome to our “Ask the Expert” feature, designed to assist you with any and all issues related to swimming pool water, mechanical equipment and space conditioning, and code compliance. Ask a question, and we will answer to the best of our ability.

We are proud to be a part of the USSSA organization, and you must be proud of the tremendous job you are doing, as an industry, to instruct American youth how to swim. To do our part, we will pledge to share the knowledge gained over our 30+ years of experience with many thousands of the industries’ premier pools.

Suitable topics for discussion, as related to our expertise, are mostly in the fields of circulation, filtration, chemistry control, chemical treatment, heating, filtration, UV, Ozone, saline chlorination, green technologies, dehumidification, ADA compliance, and Department of Health code and safety issues. Having said that, no topic is off the radar. If we don’t know the answer, we will research the topic with suitable experts and report back to the group.

While we have only been a part of the USSSA group for a short time, we have worked for some of your key members for over 25 years. We completely understand the swimming pool challenges that swim school operators are facing, and are poised to assist. But to succeed we both have to be at the top of our games. Why?

Operating an indoor Swim School pool is often like a perfect storm of what can and will go wrong. On par with our municipal and water park customers, a swim school pool is among the toughest

bodies of water to operate successfully. How so? Let’s see; we have a small volume of water that is heated to a high temperature. This increases the bacteriological activity, and with it the difficulty of maintaining the water quality. Then add 1,000 to 1,500 young bodies a week, and this provides an exponential problem. Factor in that it is totally unacceptable (as well as very unprofitable) to ever cancel a lesson for any reason. It is also unacceptable to have a pool temperature under 86°F, or to have any other mechanical issue that would cause cloudy, unattractive, or irritating pool water. In most cases, you need to please both your customer AND their parents.

We also need to factor in that indoor pools are many times more difficult to operate than outdoor pools, as they prevent the escape of noxious gases that are the byproduct of chlorination. All you need to do is to Google respiratory ailments or indoor pools to verify industry-wide issues with respiratory irritation, asthma, etc. Then we need to consider that some of the instructors are in the water all day long, almost every day, so if the water is not perfect then someone on your payroll is going to suffer. The humidity of the room must be maintained for bather comfort, and to prevent damage to your facility.

The water quality portion of the operation is important as well. You need to turn the water over many times quicker than a standard pool to keep up with the loading, so your piping and circulation system must be up to the task. You also need to lose enough water to avoid issues with irritation and corrosion, but not too much water to dilute all your

chemicals. You not only need to take tight control of Chlorine and pH, but also must balance your water to avoid irritation and equipment degradation. Finally you must deal with environmental issues such as metals and phosphates interferences brought in, courtesy of your municipal fill water.

As we mentioned during a “Building Bulletproof Swim School Pools” presentation in the Orlando 2011 USSSA conference, some of the toughest challenges you face occur during construction and/or renovation of your swim school pools. The types of pool builders and general contractors that are most attracted to building smaller pools may not be aware of the extreme challenges mentioned above, or may not have the technology nor experience to deal with them. Something as simple as the size of the underground pipes can hamper the success of a swim school operation quickly and permanently. Oh yes, all the above must be completed within an economy-challenged budget, and with consideration to conserving natural resources.

Sounds complicated? It really isn’t, if you have a proper roadmap. As busy as you are as swim coaches and entrepreneurs, the roadmap to support your swim school water quality should be well marked and simple to follow.

As an outsider it is quite impressive to see how your organization bands together to train its members in all aspects of the swim school business, and how the members go out of their way to educate each other to encourage success. We are very happy to be a part of this process, and vow to assist in a direct, factual, and non-commercial manner.

Please feel free to forward your questions and comments through the USSSA office, or directly to me via email at [amendoza@ceswaterquality.com](mailto:amendoza@ceswaterquality.com).

We look forward to working with you.

Best Regards,  
Alvaro G. Mendoza