

Water balance is a balancing act

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In a perfect world, according to the text books, achieving proper water balance and saturation index are easy scientific parameters that are readily achieved by adding exact amounts of the chemicals needed to achieve the proper balance. According to the NSPF, water chemistry guidelines are as follows:

Free Chlorine Min. 1.0 Max 5.0 Ideal 2.0-4.0 ppm

PH Min. 7.2 Max. 7.8 Ideal 7.4-7.6

Total Alkalinity Min. 60 Max. 180 Ideal 80-120 ppm

Total Dissolved Solids Max 1500 ppm over start-up (Subtract salt content from TDS reading if salt pool)

Calcium Hardness Min. 150 Max 1000 Ideal 200-400-ppm

Cyanuric acid ideal 30-50 ppm

However, there are many factors affecting the way we treat our pools in the real world of field pool maintenance. We often have to make judgment calls based on the factors we expect to experience for the next seven days for that body of water.

As we progress through our swim season here in Florida we continue to be aggressive with the testing and balancing of our customers' pools. Our judgment calls consist of many factors including, how much rainfall we anticipate for the week (always have a five-day outlook on your area's weather), swim load (get to know and communicate with your customers so you know what their swim load may be for that week - having a child's pool party, infant swim lessons, etc.), high water temperatures (the water temperatures in our area have a 35 degree swing), proper circulation (always clean the filter weekly or bi-weekly at a minimum to allow for proper flow so that feeders, generators and other components may function properly), chlorine generation (is the output set correctly, are the cell volts and amps within acceptable parameters and is the cell clean or scaled up?), and lastly chemical interaction (as chlorine generators increase output due to higher water temperatures and swim loads, the ph of the water increases as well). Treating for that higher ph can drive the alkalinity down which then needs to be adjusted as well. If liquid chlorine is used it has a high ph (sodium hypochlorite has a ph of 13) and tends to drive the water in that direction whereas if trichlor tabs are used it has a very low ph (ph of 2.8-3.5) and tends to hold the ph of the water down.

So in effect, it is a balancing act to balance your customer's pool water based on existing conditions for the week. So keep an eye out on the weather and a test kit handy to provide the best swim season you can for your customers!