

# The RECIRCULATOR

DEPARTMENT OF PUBLIC HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH  
VOL. 66, NO. 1 – MARCH 2010

## Certified Pool/Spa Operator® (CPO®) Courses – March - August 2010

Sponsor	Dates	Location	Contact	Address	Telephone
Iowa Parks & Recreation Association	March 31-April 1 April 14-15 May 12-13 June 9-10 August 11-12	Iowa City Clear Lake Cedar Rapids Fort Dodge Des Moines	Cathy Shutts	1534 Penrose St Grinnell, IA 50112 E-mail: cshutts@pcpartner.net	(641)236-3917 Fax: (641)236-6779
SLC Pool Consultants	March 23-24 April 6-7 April 27-28 June 22-23	Okoboji Council Bluffs Des Moines Des Moines	Steve Craig	Swimming Pool Supply 5292 NW 111th Drive Grimes, IA 50111 E-mail: steve@spspools-spas.com	(515)986-3931
Certified Pool Trainers of Iowa & Minnesota	March 30-31 May 19-20	Story City Altoona	John Szymanski	65910-267 <sup>th</sup> Street Alden MN 56009-4211	(800)253-7235 Fax: (507)863-2367
ACCO Unlimited Corporation	May 18-19	Clive	Jessica Pollard	5300 NW 55 <sup>th</sup> Ave Johnston IA 50131 E-mail: jpollard@accounlimited.com	(515)278-0487 Fax: (515)278-2183
Aqua Palace	April 14 (Fusion-requires online completion of some course work)	Council Bluffs	Jennifer Rolenc	810 Woodbury Ave Council Bluffs IA 51503 E-mail: aquapalace@aol.com	(712)329-4180

Check with the individual training organizations, your inspection agency, or the Iowa Department of Public Health at (515)281-8722 for courses that may be scheduled later.

### **Pool and Spa Chemistry**

Recent research has shown that the chemistry of pool and spa water is complex, primarily because people chemistry is complex. Regulators, including the IDPH, have set limits for some parameters based on maintaining disinfection and water clarity. Industry organizations, such as the Association of Pool and Spa Professionals (APSP) and the National Swimming Pool Foundation (NSPF), publish guidelines for swimming pool parameters based on experience and the consensus of regulators and service persons.

The following table includes the Iowa regulatory limits where applicable and recommended levels of other

common operating parameters. The table published by APSP gives minimum, “ideal” and maximum values for most of the parameters. In our view, the “ideal” values given are misleading for some parameters. Individual pool experience should be considered.

The “recommended” disinfection values in the table below are generally higher than APSP “ideal” concentrations. Pool operators must evaluate their own facilities to determine the parameter levels that work best. Bather load relative to water volume is probably the most significant variable, but location, pool equipment and controls, and facility mechanical and HVAC equipment for indoor pools affect operations.

Parameter	Pool Type	Minimum	Recommended	Maximum
ORP (mv) IDPH rule	All	700, closure required if below 650	720-800	880, closure required if exceed
Free Chlorine (ppm or mg/L) IDPH rule	Swimming, wading, spray pad, etc.	1.0, closure if measured less than 0.6	2 to 5	8.0, closure required if exceed
	Spa	2.0, closure if measured less than 1.0	3 to 6	8.0, closure required if exceed
Total Bromine (ppm or mg/L) IDPH rule	Swimming, wading, spray pad, etc.	2.0, closure if measured less than 1.0	4 to 8	18, closure required if exceed
	Spa	4.0, closure if measured less than 2.0	5 to 10	18, closure required if exceed
Combined chlorine (ppm or mg/L)	All	0	0	No more than 0.2 to 0.5, based on pool experience
pH IDPH rule	All	7.2, closure possible if less than 6.8	7.4-7.6 Some industry sources recommend lower operating pH	7.8, closure possible if greater than 8.2
Total Alkalinity (ppm or mg/L as CaCO <sub>3</sub> )	All	60, too low alkalinity can lead to pH variability and corrosion	80-120	200, too much alkalinity can make pH adjustment more difficult
Calcium Hardness (ppm or mg/L as CaCO <sub>3</sub> )	All	The generally recommended minimum is 200, but some industry sources prefer at least 400. APSP recommends a maximum of 1,000, but pools have operated successfully with hardness well above that.		
Cyanuric Acid (ppm or mg/L) IDPH rule	All	0 for indoor pools and spas. A low level is usually recommended for outdoor pools.	APSP recommends 30-50. Most sources now consider 10-30 appropriate for outdoor pools with ORP controllers.	80, closure required and reduction to 40 before opening if exceed

### ***Pool & Spa Rule Books***

Printed rule books are now available. You can get a copy at <http://www.drugfreeinfo.org/state/cart.php> (the link is also on the IDPH swimming pool page, [http://www.idph.state.ia.us/eh/swimming\\_pools.asp](http://www.idph.state.ia.us/eh/swimming_pools.asp)) or by calling (866)242-4111. The rules are still on our Web site at the link above.

### ***Pool and Spa Rules Review***

The last substantial revision of the rules became effective in May 2005. A small administrative amendment was made in 2008 and last year we added VGB provisions. It's time to go over the whole set of rules and see where they can be improved, clarified, and made more effective.

As part of the process, we expect to look at fees, lifeguard and other safety professional training, operator training, testing requirements and standards, and equipment standards. There is a national effort (Model Aquatic Health Code, [http://www.cdc.gov/healthyswimming/MAHC/model\\_code.htm](http://www.cdc.gov/healthyswimming/MAHC/model_code.htm)) based at the Centers for Disease Control and aided by the NSPF that we will be watching closely for potential guidance.

**IDPH needs your help in trying to improve the rules.** Please take the time to comment on rules that you consider unclear, onerous, or inappropriate. If you are aware of newer technology that should be addressed, please send us information or references. If

you think another state has done it better, send us the text or a Web address. Written comments can be sent to:

Michael Magnant  
Iowa Department of Public Health  
321 E 12<sup>th</sup> Street  
Des Moines IA 50319-0075

Send E-mail comments to [mmagnant@idph.state.ia.us](mailto:mmagnant@idph.state.ia.us).

We plan to give considerable time for consideration and suggestions, but we hope to complete the revision before the end of 2010. We look forward to hearing from you.

## Continuing Education Courses – March – August 2010

Sponsor	Dates	Location	Contact	Address and Telephone	Credit
Iowa Parks & Recreation Association	March 30 April 7 April 13 May 11 June 8 August 10	Iowa City Coralville Clear Lake Cedar Rapids Fort Dodge Des Moines	Cathy Shutts	1534 Penrose St Grinnell, IA 50112 (641)236-3917 E-mail: cshutts@pcpartner.net	2.5 hours
SLC Pool Consultants	March 23 April 6 April 12 May 3	Okoboji Council Bluffs Des Moines Des Moines	Steve Craig	Swimming Pool Supply 5292 NW 111th Drive Grimes, IA 50111 (515)986-3931 E-mail: steve@spspools-spas.com	2.0 hours
Certified Pool Trainers of Iowa & Minnesota	April 1 May 20	Story City Altoona	John Szymanski	65910-267 <sup>th</sup> Street Alden MN 56009-4211 (800)253-7235	4.0 hr
ACCO Unlimited Corporation	May 13	Clive	Jessica Pollard	5300 NW 55 <sup>th</sup> Ave Johnston IA 50131 (515)278-0487 E-mail: jpollard@accounlimited.com	3 x 2.0 hours

Remember that Certified Pool Operators<sup>®</sup> in Iowa must obtain 10 hours of continuing education in the five years between renewals of the CPO<sup>®</sup> certificate. The individual CPO<sup>®</sup> must maintain a record of the continuing education. The record must be available to the inspection agency at each facility for which the CPO<sup>®</sup> is responsible.

Check with the sponsoring organization for the subject matter at these courses and for courses scheduled later.