The RECIRCULATOR

DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
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Certified Pool/Spa Operator® (CPO®) Courses – January - June 2010

Sponsor	Dates	Location	Contact	Address	Telephone
Iowa Parks & Recreation Association	January 13-14 February 10-11 March 10-11 March 31-April 1 April 14-15 May 12-13 June 9-10	Cedar Falls Sioux City Ames Iowa City Clear Lake Cedar Rapids Fort Dodge	Cathy Shutts	1534 Penrose St Grinnell, IA 50112 E-mail: cshutts@pcpartner.net	(641)236-3917 Fax: (641)236-6779
SLC Pool Consultants	February 23-24 March 9-10 March 23-24 April 6-7 April 27-28 June 22-23	Des Moines Quad Cities 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	February 2-3 February 23-24 March 16-17 March 30-31 May 19-20	Owatonna, MN Spencer Cedar Falls Story City Altoona	John Szymanski	65910-267th Street Alden MN 56009-4211	(800)253-7235 Fax: (507)863-2367
ACCO Unlimited Corporation	None Scheduled		Jessica Pollard	5300 NW 55th Ave Johnston IA 50131 E-mail: jpollard@accounlimited.com	(515)278-0487 Fax: (515)278-2183

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.

Spa Fittings for VGB Compliance

As noted in the previous edition, spa fittings installed before the advent of VGB were a problem. A large number of Hayward and HydroAir fittings (generally similar in appearance to the picture in the next column) that complied with the previous version of the ASME standard were used in prefabricated and constructed spas. CPSC determined that these fittings needed to be replaced for compliance with VGB.

Neither Hayward or HydroAir's parent company elected to develop, test or market a replacement fitting for the existing parts. Parts for new construction have been available for some time, but replacement parts for previously installed fittings were not available.

The full fitting consists of the cover (similar to above) that is connected by screws to a separate plastic fitting

body. The body is glued or screwed to a pipe that extends through the wall of the spa or to mating fitting on the other side of the fiberglass spa wall. Views of the full fittings can be found at http://www.aquastarpoolproducts.com/docs/specsheets/4HPxxx.pdf and http://www.waterwayplastics.com/pdfs/807-0077.0709_reduced.pdf.

If the fitting is screwed into the wall, the replacement is straightforward if you can get the fitting out without damaging the threads. If the fitting is glued, the only reasonable way to update it is to remove the cover from the fitting body and install a new cover. Otherwise the existing fitting would need to be abandoned and a new hole drilled through the spa wall with a new VGB-compliant fitting (assuming you can get to the outside wall of the spa with room enough to install new pipe).

In the last month, new fittings from Aquastar (http://www.aquastarpoolproducts.com) and Waterway Plastics (http://www.waterwayplastics.com) have become available. The Aquastar fittings, 4HPxxx and 6HPAxxx, are shown on the respective data sheets on the company Web site to replace HydroAir parts. The Waterway threaded product, 640-803vX, is being looked at to replace some installed parts. All of these appear to have reasonable flow ratings for the application.

If you have a spa that is still not VGB-compliant, you should contact your pool service company to determine if one of these fittings would work for you. We know that the statewide service companies and at least some local companies are aware of the parts availability. We have also provided information to the inspection agencies.

Local inspection agency contacts are listed on our Web site at http://www.idph.state.ia.us/eh/swimming_pools.asp.

Questions should be directed to Michael Magnant at the IDPH, (515)281-8722, mmagnant@idph.state.ia.us.

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) or by calling (866)242-4111. The rules are still on our Web site at the link above.

World Aquatic Health™ Conference

The 6th World Aquatic Health Conference™ (WAHC) sponsored by the National Swimming Pool Foundation (NSPF) was held in Atlanta at the end of October. It brings together public health professionals, designers, contractors, facility operators, service providers, safety organizations, and academics for one and a half days of presentations and interaction.

The tracks this year were Health Benefits (exercise), Drowning Prevention & Risk Reduction, Profitable Facility, Industrial New Technology, Green Technology, and Recreational Water Illness (RWI) Prevention. The specific presentation titles and abstracts are at www.nspf.org under the "World Aquatic Health™ Conference" tab. NSPF offers video of the presentations for a fee. Below are a few highlights from some of the sessions I attended.

Patron Showers

Having patrons shower before entering the pool area has been a recommendation from public health agencies for many years, but we haven't had any specific information about the benefits. A couple of talks in the RWI Prevention track referenced a Dutch study on showering. A summary from the abstract is below.

The study group defined three types of "bathing load" for an individual swimmer:

- Initial bathing load-the stuff that washes off the swimmer when he/she first goes into the water.
- Continual bathing load-primarily sweat caused by the activity level of the swimmer in the water.
- Accidental bathing load-urine, blood, vomit, feces.

The study focused on "initial bathing load." The researchers developed a method to measure the initial bathing load (the abstract does not give details). They surveyed swimmers at a facility to determine their "personal hygienic state," then had some shower once, some twice, and others shower and wear a bathing cap. The results showed that even a brief shower reduced the initial bathing load by 35-60%; using a bathing cap brought the reduction over 75%.

This should encourage facilities to make a stronger effort to have patrons shower. Designs for future facilities may require patrons to go through the showers to get to the pool.

Filtration

The group at the University of North Carolina-Charlotte led by James Amburgey, Ph.D., has been

studying pool filtration for the past few years (Dr. Amburgey reported in a side study last year that swim diapers do not contain crypto size particles significantly). In the work reported at the conference, Dr. Amburgey found that sand filters (seen in the majority of Iowa pools) remove an average of 25% of crypto size particles in a single pass, but pre-coat filters (diatomaceous earth (DE) type using DE or alternate media) will take out over 99% one time through. His group is continuing work on potential chemicals or treatments to make sand filters more efficient.

Pool Chemistry

A group at Purdue University led by Ernest Blatchley III, Ph.D. is studying the chlorine-nitrogen chemistry of indoor swimming pool water. In laboratory experiments, they have found that urea and other relatively complex chemicals shed by swimmers combine with chlorine to form compounds that are very resistant to superchlorination. Urea, for example, is added to pool water in urine and sweat and, according to Dr. Blatchley, is a significant source of trichloramine (NCl_3), the primary cause of "chlorine" odors and irritation in pool environments. In Dr. Blatchley's experiments, it takes 12 hours for half the urea to react with the chlorine and over 5 days for the combined chlorine to drop to less than 0.1 ppm (measured with DPD) at a chlorine dose over 22 times the nitrogen concentration. Dr. Blatchley also indicated, based on the analytical techniques his group is using, that he believes the DPD test overstates the combined chlorine levels significantly in "normal" swimming pool water.

The group is also investigating the specific effects of UV radiation on swimming pool chemistry. Practical experience shows that UV helps with indoor air quality at aquatic facilities, but Dr. Blatchley is trying to determine the chemistry involved and the types and doses of UV radiation that are most effective.

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 this 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) 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 12th Street
Des Moines IA 50319-0075

Send E-mail comments to 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 – October-November 2009

Sponsor	Dates	Location	Contact	Address and Telephone	Credit
Iowa Parks & Recreation Association	January 12 February 9 March 9 March 30 April 7 April 13 May 11 June 8	Cedar Falls Sioux City Ames Iowa City Coralville Clear Lake Cedar Rapids Fort Dodge	Cathy Shutts	1534 Penrose St Grinnell, IA 50112 (641)236-3917 E-mail: cshutts@pcpartner.net	2.5 hours
SLC Pool Consultants	March 9 March 15 March 23 April 6 April 12 May 3	Quad Cities Des Moines 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	February 25 March 18 April 1 May 20	Spencer Cedar Falls Story City Altoona	John Szymanski	65910-267th Street Alden MN 56009-4211 (800)253-7235	4.0 hr
ACCO Unlimited Corporation	None scheduled		Jessica Pollard	5300 NW 55th Ave Johnston IA 50131 (515)278-0487 E-mail: jpollard@accounlimited.com	3 x 2.0 hours

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

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