

bbwilbur@frontier.com

From: "Dahl, Tim (BC)" <TDahl@shorelinefire.com>
Date: Friday, February 08, 2013 1:50 PM
To: "Dahl, Tim (BC)" <TDahl@shorelinefire.com>; "Dan'l Jones" <dan_serv@hotmail.com>; "Cathie" <cathianne@aol.com>; <whshed@live.com>; <cedars@olypen.com>; <htrain4@gmail.com>; "Bob Wilbur" <bbwilbur@broadstripe.net>; "Maria Chamberlain" <hermitanamaria@gmail.com>; "Jean Salls" <jean_salls2000@yahoo.com>; "Gwyn Staton" <gwynstaton1@msn.com>; "Suzy Palmer" <suzypalmer1@me.com>
Subject: RE: American Red Cross Guideline

Clarification: As Dan'l stated most of the users are adults...what I meant to say was the "the major users are kids"... which I based on Dan'l's statement.

Thanks,

Tim

From: Dahl, Tim (BC)
Sent: Friday, February 08, 2013 1:45 PM
To: 'Dan'l Jones'; Cathie; whshed@live.com; cedars@olypen.com; htrain4@gmail.com; Bob Wilbur; Maria Chamberlain; Jean Salls; Gwyn Staton; Suzy Palmer
Subject: RE: American Red Cross Guideline

All,

I think it's important to make sure that we identify consensus where we can:

- Clearly, ANY decisions regarding any of the design elements will follow State law. This should not preclude consideration of additional information when considering decisions that are WITHIN the standard(s) established under RCW. (Discretionary)
- Also, construction requirements and practical considerations (including cost) will also dictate depth feasibility to some extent.
- If we are talking about wanting to ALLOW edge diving, then these issues might deserve consideration. A bridge only to be crossed based on the results of the above. The issue of allowing "edge diving" may be moot. I believe the concern expressed is that IF someone does break the rules and dives in, can we somewhat mitigate the likelihood of injury.
- I think it's safe to say that no one is talking about putting in a diving board, so let's not bog ourselves down with any discussion regarding diving from greater than 12" above water.
- The depth of the pool relative to the tidal level is a real issue that I believe everyone is aware of and should be discussed in the consultant's report. This may require a cost/benefit discussion being part of any final decision.
- Having said all that, given that a majority of the pool users are kids:
 - Absolute compliance with the rules is improbable at best, irrespective of how well our lifeguards enforce them.

- It is important to remember that a pool is a RECREATIONAL facility (read that “fun”). While legal compliance and safety are obvious priorities, let’s not miss opportunities to keep it fun – or even make it more fun. (And yes, functional for those who want to use it strictly for exercise.)
 - Many kids (and adults) like the added recreation of swimming in the deep end (ie: swimming to the bottom or diving for sunken objects.)
 - One issue that came up was the ability to rent out the use of the pool for SCUBA classes that has a depth requirement of (I think he said) 6’ – This may be a year round possibility for a small amount of income.
 - One issue that I’m not sure we have considered is the idea of a slide. I know that the Klahaya pool faced a similar issue on their project and installed a slide where the diving board had been. My limited research hasn’t found any requirements other than “manufacturer’s requirements”. But I believe in discussion with one of the players in that project that it was considerable less depth required (more research needed).
- It’s LIKELY that the deep end will be getting shallower. Time (study, feasibility, cost and reasoned discussion) will likely dictate how much shallower.

I look forward to receiving more information and our reasoned discussion to guide us towards the best result. Thanks to all for your passion and involvement.

Tim

From: Dan'l Jones [mailto:dan_serv@hotmail.com]

Sent: Friday, February 08, 2013 12:27 PM

To: Cathie; whshed@live.com; cedars@olympen.com; htrain4@gmail.com; Bob Wilbur; Maria Chamberlain; Jean Salls; Gwyn Staton; Dahl, Tim (BC); Suzy Palmer

Subject: RE: American Red Cross Guideline

I think it would be prudent to continue the "no diving rule" currently in effect at our pool. The lifeguards enforce the no diving rule very well. The pool deck is clearly marked "NO DIVING". The "deep end" where diving from the deck might be attempted ranges from 7 feet to 10 feet. The pool is not appropriate for diving in the lanes, except by trained, competitive swimmers. We cannot afford to allow diving. Fort Casey is a shallow pool and has had no serious diving injuries, because their lifeguards too are good at enforcing the no diving rule.

The current 10-foot depth in the old diving well is below sea level and everyone we hire needs to understand that limitation. It is not something that is readily apparent. They need to consider the engineering problems posed by tidal action before emptying the pool and time their work accordingly. Filling in the deep end would eliminate that concern. The depth of the deep end is no longer adequate for a diving board anyway. Lowering the depth would solve many problems encountered in maintaining the pool. It would not prevent diving by trained, competitive swimmers.

The American Red Cross is not the standard under Washington state law. We simply need to abide by RCW 70.90 and WAC 246-260. If a contractor or consultant doesn't know about it, they should not even be considered for the job.

RCW 70.90.160 Modification or construction of facility — Permit required — Submission of plans.

A permit is required for any modification to or construction of any recreational water contact facility after June 11, 1986, and for any other water recreation facility after July 26, 1987. Water recreation facilities existing on July 26, 1987, which do not comply with the design and construction requirements established by the state board of health under this chapter may continue to operate without modification to or replacement of the existing physical plant, provided the water quality, sanitation, and life saving equipment are in compliance with the requirements established under this chapter. However, if any modifications are made to the physical plant of an existing water recreation facility the modifications shall comply with the requirements established under this chapter. The plans

and specifications for the modification or construction shall be submitted to the applicable local authority or the department as applicable, but a person shall not be required to submit plans at both the state and local levels or apply for both a state and local permit. The plans shall be reviewed and may be approved or rejected or modifications or conditions imposed consistent with this chapter as the public health or safety may require, and a permit shall be issued or denied within thirty days of submittal.

The Rules that were promulgated in accordance with the requirements of the Revised Code of Washington can be found in the Washington Administrative Code.

WAC 246-260-041

(5) **Specific design requirements for pools furnishing areas for diving.** Owners shall ensure areas designated for diving activities include a diving envelope meeting minimum requirements in:

(a) D-8.01, Table 1, APHA Public Pool Regulations, 1981, if the pool user would enter from the deck level twelve inches or less from water surface level.

(b) CNCA standard configuration in areas where user would enter from the deck level over twelve inches from water level, or has a platform or diving board provided at a height of less than one-half meter (twenty inches). This requirement is based on a standard described under CNCA publication *Swimming Pools: A Guide to Their Planning, Design, and Operation* 1987, Fourth Edition. Human Kinetics Publisher, Inc., Champaign, Illinois, Figure 8.1; or

(c) Dimensions for Diving Facilities, FINA facility rules, 2000-2001, if the pool user enters from the diving board or platform at a height of twenty inches (one-half meter) or greater from water surface level.

The books cited in the above code can be purchased online inexpensively. The rules apply not only to depth, but slope and other dimensions as well. I strongly recommend that we not try to make up our own standards or make changes that increase liability, cost, or that may endanger our pool patrons.

Per the Washington Administrative Code and the Revised Code of Washington, when it comes to any diving in our pool, the standards with which we must adhere are those of:

- The American Public Health Association (APHA),
- The Council for National Cooperation in Aquatics (CNCA), and
- The Federation Internationale de Natation (FINA)

The Federation Internationale de Natation, or FINA, is the international organization for competitive diving. FINA requires a minimum depth of 3.4 meters (prefer 3.5 meters) for a 1-meter high diving board, or about 11 feet 6 inches deep for a 3-foot high board, and at least 4.5 meters for a 10-meter high platform board.

The National Foundation for Spinal Health specifies a minimum 3 1/2 feet for any diving, 3 1/2-4 feet for dives from platforms of 18 inches above the water and 4+ feet for platforms up to 30 inches high, but these are not the standards for state law either. Statistical analyses show that the vast majority of accidents occur in water depths of about 3 1/4 feet or less. One study reports only 13% of accidents occurred in depths of 3 1/4 -9 feet. The "spinal wall" in our pool, the contour from the deep end diving well, is the real "danger" posed when we allow diving, not the depth itself.

Historically, more adults have signed in to use our pool than children, although the children who sign in tend to be in the water longer. The pool has always allotted certain time periods specifically limited to adult swimmers, but no such time periods where only children could swim. Fewer and fewer pools allow diving, and the use of diving boards in facilities that do have them is not significant.

Obviously, there are a number of "standards" and studies, but the only standards we must observe are those found in the RCW and WAC (or standards promoted by authorities and organizations those statutes and rules cite). Anything less would be unlawful. I vote on the side of lawful.

Thanks,
Dan'l

To: whshed@live.com; dan_serv@hotmail.com; cedars@olypen.com; htrain4@gmail.com;
bbwilbur@broadstripe.net; hermitanamarca@gmail.com; jean_salls2000@yahoo.com; gwynstaton1@msn.com;
tdahl@shorelinefire.com; suzypalmer1@me.com
 Subject: Re: American Red Cross Guideline
 From: cathieanne@aol.com
 Date: Thu, 7 Feb 2013 12:52:31 -0500

Ed -

I thought he said in order to install a dual main drain(s) easily, it was be most practical to plumb and raise the level of the pool a few feet. He was explaining the different types of concrete, possible drilling problems, etc., and it sounded like he was thinking of a T-joint/pipe coming out of the main drain, splitting off into two drains, housed and covered up.

Will see what (and why) his recommendations are.

Cathie

-----Original Message-----

From: Ed Delahanty <whshed@live.com>
 To: dan_serv <dan_serv@hotmail.com>; cedars <cedars@olypen.com>; htrain4 <htrain4@gmail.com>; bbwilbur <bbwilbur@broadstripe.net>; hermitanamarca <hermitanamarca@gmail.com>; jean_salls2000 <jean_salls2000@yahoo.com>; cathieanne <cathieanne@aol.com>; gwynstaton1 <gwynstaton1@msn.com>; tdahl <tdahl@shorelinefire.com>; suzypalmer1 <suzypalmer1@me.com>
 Sent: Thu, Feb 7, 2013 9:42 am
 Subject: American Red Cross Guideline

Hi All,

I was concerned that decreasing the depth of the deep end of the pool might create a situation that could potentially increase the risk of spinal cord injury in the pool. A little research turned up this recommendation from a New York State Department of Health web site.

Diving Safety Recommendations:

- The American Red Cross recommends a minimum of 9 feet of water depth for head first dives including dives from pool decks.
- Results for a comprehensive study of diving injuries are presented in "Diving Injuries: The Etiology of 486 Case Studies with Recommendations for Needed Action" edited by Dr. Alexander Gabrielsen, Ph.D., 1990, NOVA University Press.¹ A 13 member editorial panel of aquatic experts recommended:
 - Posting of appropriate warning signs which includes prohibition of diving in water depths less than 5 feet.
 - Proper supervision to control activities of swimmers/divers.
 - Public education in swimming and diving.
 - Improved regulations and standards for pool and beaches addressing design and operation issues.

I realize there could be a savings in operating costs if the pool deep end depth was reduced from it's current 10 feet by decreasing the required circulation capacity of the system and reduced sanitary chemical demand with the reduced volume of water.

But, since children and teens are the primary users of the pool and it's likely some of them will dive into the pool - even if it's prohibited - I'd like to suggest we keep the deep end depth at least within the American Red Cross guideline of 9 feet, so there is a designated area for safer diving - off the pool deck - to minimize as much as possible the risk of crippling spinal cord injuries in our pool.

Please consider this issue as options for pool refurbishment are evaluated.

Kind Regards,

Ed.