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The Pool Safety & Sanitation  
 Newsletter of the Alexandria  
 Health Department

The Lifeline

## Turnover Rate and Flow Meters



The time required for a circulation system to move the volume of water contained in a pool, spa or recreational water feature through the filtration equipment is known as the *turnover rate*. In this process, water is moved out of the pool to the filters, chemically treated and returned to the pool. The continuous mixing of filtered water with unfiltered water removes pollutants in a process of partial dilution. Turnover rates differ based on the type of pool, spa or recreational

water feature. Current Alexandria Aquatic Health Ordinance requires the following minimum turnover rates:

Type of Pool	Turnover Rate
Spa Pool	15 Minutes
Interactive Water Feature	30 Minutes
Children's Activity Pool (Waterpark Facility)	1 Hour
Wading Pool	2 Hours
Wave Pool (Waterpark Facility)	2 Hours
Swimming Pool	6 Hours

Circulation systems for recreational water facilities constructed (or renovated) after adoption of the 2010 Aquatic Health Ordinance must adhere to the turnover rates listed in this table. The 6 hour turnover rate for swimming pools and 2 hour rate for wading pools are well-established rules in Alexandria and were mandated in the prior aquatic health ordinance. Turnover rates at your facility could differ from those listed above, however, based on construction date. Carefully read the values stated on the permanent specification placard in your filter room(s) for the operational characteristics at your facility. If you notice that the placard has been altered, notify your supervisor immediately.

Because flow rate determines turnover rate, working and appropriately sized flow meters are critical for assessing turnover of water. During evaluations of recreational water facilities, aquatic health specialists *always* check that these components are functioning adequately and displaying rates that meet filter room placard specifications. As a pool operator you are responsible for making sure flow meters are working and that rates meet the minimum required for your facility. During an evaluation, the rate must be correct at the moment of first reading by an aquatic health specialist. Maintaining adequate flow rates at all times is the best way to demonstrate that your facility's turnover rate complies with Alexandria Aquatic Health Ordinance.

## Main Drain Cover Recall

Avoiding entrapment at an aquatic facility should be a top priority! The potential of body entrapment has led to a decision by the US Consumer Product Safety Commission of recalling certain pool and in-ground spa drain covers. To conform to the new safety standards, main drain covers that pose a hazard of entrapment are required to be replaced. During routine aquatic health evaluations of facilities in June, Environmental Health Specialists visually examined the main drain covers at all facilities. Also during these evaluations, a letter from the Alexandria Health Department was handed out onsite at facilities with main drain covers that do not appear to be compliant. This letter serves as a notice that non-compliant main drain covers should be replaced as soon as possible. During the next two weeks, your Environmental Health Specialist will conduct a follow-up assessment to verify whether all main drain covers meet the new safety standards.

Even with a compliant and safer main drain cover installed, a routine operational inspection by a pool operator is an essential component for providing a safe aquatic facility for patrons. The design and maintenance of a main drain outlet or outlets, and the components of drain outlets shall be in good condition. Main drain covers that are missing, broken or appear to be cracked, or have loose screws must be addressed immediately. Until a damaged main drain cover is repaired and in good working condition, your aquatic facility is to remain closed. The potential for submerged entrapment is a serious concern and should be treated with the utmost care!

“...APSP presents this award annually to the aquatic health program judged best in the United States.”

## 2011 Neil Lowry Memorial Award

### ALEXANDRIA HEALTH DEPARTMENT RECEIVES PUBLIC HEALTH AND SAFETY AWARD



The Alexandria Health Department has been awarded the 2011 Dr. Neil Lowry Memorial Award from The Association of Pool & Spa Professionals (APSP). Acknowledging excellence in public health programs that advance healthy and safe use of recreational waters, APSP presents this award annually to the aquatic health program judged best in the United States. The 2011 award, which was presented at the National Environmental

Health Association’s Annual Educational Conference in June, includes a plaque and a monetary award to the winning program. The monetary award supports educational, operational, and technical activities of the recipient program. In the photo, Dr. Stan Pickens (l) of APSP presents the award to Stephen Hughes (r), Environmental Health Technical Specialist, Environmental Health Division, Alexandria Health Department.