



## STUDY GUIDE - POOL OPERATOR EXAM

**This study guide is intended to assist those who are preparing to take the Pool Operator licensing test. Pertinent regulations are restated in shortened, easy-to-read form. Section numbers refer to specific parts of the Anne Arundel County Pool Operation Regulations. Please see these regulations if you need more information. Copies are available at the Health Department.**

### **Scope**

These regulations apply to public and semi-public pools and spas in Anne Arundel County. (sec. 2)

### **Permits**

A pool must have an operating permit, issued by the Health Department each year, before it may be opened. (sec. 3A)

### **Turnover**

"Turnover" means the time required to circulate through the filter system a quantity of water equal to the pool or spa volume. (sec. 2)

The turnover time at a pool or spa may not be greater than:

main pool: 8 hours

wading pool: 2 hours

spa: 1/2 hour

therapy pool: 6 hours (sec. 10B)

### **Restrooms/ Locker rooms:**

Every pool must have toilets, sinks, and showers available. These must be properly maintained and in working order. Supplies such as soap, toilet paper, and paper towels must be present at all times. (sec. 15)

### **Inspections**

The Health Department may come to a pool at any reasonable time for the purpose of conducting an inspection. (sec. 4A)

A pool operator must check each pool every day before opening to look for suction entrapment hazards (and any other items which may require maintenance.) The Entrapment Hazard Checklist must be filled out every day and kept with the pool's operating records. (sec.18A)

A pool and its related facilities must be maintained in a safe, clean, and orderly manner. (sec.18B)

**Safety Equipment:**

The following items are required to be kept at all pools:

- 1) A first aid kit with band-aids, gauze, tape, eyewash, bee-sting swabs, etc. (see regulations for complete list)
- 2) CPR mask
- 3) Disposable latex gloves
- 4) Bloodborne pathogen control kit (blood clean-up kit)
- 5) Backboard with head immobilizer
- 6) 10 ft. pole
- 7) Rescue tube(s) (sec. 19A)

A pool or spa must have a working telephone at all times. (sec. 19C)

**Lifeguards:**

A person may not act as or perform the duties of a lifeguard without a Lifeguard License issued by the Health Department.

To get a license, you must be at least 16 years old, apply in person at the Health Department, present a valid lifeguard training certificate, present a photo ID, and pay a fee of \$20. This license expires April 30 of each year. (sec. 19E)

A licensed lifeguard or guards shall be on duty on the deck of any public pool when the pool is open. (sec. 19E)

Number of lifeguards required:

- At least one guard for each 50 people, or fraction of 50, in the pool.
- More guards may be required if necessary to adequately ensure the safety of the bathers. (sec. 19E)

**CPR & First Aid Personnel:**

There must be a person at the pool who has a current and valid CPR certificate and a current and valid First Aid certificate. (sec. 19F)

**Pool Operators:**

A person may not act as or perform the duties of a pool operator without a Pool Operator License issued by the Health Department. (sec. 20A)

To get a license, you must be at least 16 years old and apply in person at the Department of Health (bring a photo ID.) You must also present a certificate from an approved pool operator training class or a license from another jurisdiction; pass the pool operator licensing test; and pay a fee of \$20. Applicants with a training certificate from Anne Arundel Community College are exempt from the testing requirement. This license expires April 30 of each year. (sec. 20B)

A licensed pool operator shall be on site at all times when a pool or spa is open. (sec. 21)

**Disinfection:**

Free chlorine shall be between 1.5 and 5.0 ppm in pools. Free chlorine shall be between 3.0 and 5.0 ppm in wading pools and therapy pools, and 4.0 and 5.0 in spas. Disinfectants other than chlorine may be used when approved by the Health Department; required levels are specified in State pool regulations. (sec. 22A)

If a pool is stabilized with cyanuric acid, the cyanuric acid level shall be between 30 ppm and 100 ppm. (sec. 22B)

**Water Chemistry:**

- 1) pH shall be maintained between 7.2 and 7.8.
- 2) Total Alkalinity shall be maintained between 60 and 180 ppm.
- 3) Calcium Hardness shall be maintained between 150 and 400 ppm.
- 4) The water shall be balanced according to the Langelier Saturation Index.

The water shall be clear enough so that the main drain is clearly visible and sharply defined when observed from the side of the pool or spa. (sec. 23A)

Water additives and treatment chemicals shall be used according to the manufacturers' instructions. (sec. 23B)

Maximum water temperatures:

- 88° F in pools
- 104° F in spas
- 96° F in therapy pools (sec. 23C)

**Operating Records:**

A pool operator shall test the water in one-hour intervals when a pool or spa is open. The results shall be recorded on Operating Record forms supplied by the Health Department. The initial test must be performed one-half hour before opening.

The following items shall be recorded hourly:

- 1) Free chlorine residual
- 2) Combined chlorine residual
- 3) pH
- 4) Water clarity
- 5) Water temperature (if heated)
- 6) Flow rate

The following items shall be recorded weekly for a pool and daily for a spa:

- 1) Total alkalinity
- 2) Calcium hardness
- 3) Cyanuric acid (if used)

An operator shall date and sign each record sheet. Record sheets shall be kept on the premises for at least two years. (sec. 24C)

**Test Kits:**

A pool and spa shall be supplied with a test kit that uses the DPD reagent system for measuring free and combined chlorine or total bromine. Test kits approved by the Health Department shall be provided when a disinfectant other than chlorine or bromine is used.

A phenol red test kit with a range of 6.8 to 8.2 shall be provided to measure pH.

Test kits shall be provided to measure total alkalinity and calcium hardness.

A cyanuric acid test kit with a range of 0-100 ppm shall be provided if cyanuric acid is used in the pool or spa. (sec. 25)

**Disease Control:**

A person with any of the following conditions may not be permitted to use any pool or spa:

- 1) An infectious or contagious disease that may be transmitted through water;
- 2) An open cut, blister or other lesion; or
- 3) Diarrhea (sec.28)

**Injury and Illness Reports:**

A serious injury occurring at a pool or spa must be reported to the Health Department within 5 days. A waterborne illness contracted at a pool or spa must be reported to the Health Department within 24 hours of the owner's or operator's knowledge of the illness. (sec. 29)

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