



Environmental Health Outlook

A publication of the Clay County Public Health Center ♦ Section of Environmental Health

Pool/Spa Program Activities in 2023

In 2023, the Clay County Public Health Center’s Pool/Spa program completed 485 inspections and trained 26 pool operators. Most trending violations did see an increase in 2023. The following violations are continually at the top of the violations list: disinfectant residual not within the required range; pH not maintained within required range; operations/records not maintained; total alkalinity not maintained within required range; Flow rate; and emergency phone not operational. To minimize the hazards to public health and safety of patrons attending recreational water facilities prompt corrective action and long term compliance with these trending violations is imperative.

Critical/ Non-Critical Violations	2023	2022	2021	2020
Pool operating records are not maintained as required	86	52	39	29
Total alkalinity is not within required range	44	20	24	34
Disinfectant residual not within the required range*	40	33	49	38
Combined Chlorine	32	29	18	13
The pH is not within required range*	29	26	39	25
Pool Operating Permit not posted	23	13	7	10
Cyanuric Acid is used, not within required range	16	7	29	17
Flow Rate	15	33	30	61
Emergency phone is not readily accessible/operational*	13	13	20	12

*critical violation

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Pool/Spa Program Violation Activity in 2023

Total Inspections Conducted	485
Critical Violations Cited	104
Non Critical Violations Cited	343

Field inspectors will be providing education and training materials throughout 2024 to help reduce violations. Ask your inspector for any training materials that can help maintain the quality and safety of the pools/spas your facility.

TOP 10 POOL/SPA VIOLATIONS IN 2023



800 HAINES DRIVE, LIBERTY, MO 64068 | 816.595.4350 | CLAYHEALTH.COM/POOLS

Top Violations Cited in 2023

	#Times Out
1. Pool operating records are not maintained as required	86
2. Total alkalinity is not within required range	44
3. Disinfectant residual not within the required range*	40
4. Combined Cl is not within required range	32
5. The pH is not within required range*	29
6. Pool Operating Permit not posted	23
7. Testing Frequency	20
8. Cyanuric Acid is used, not maintained within required range	16
9. Flow rates/Turnover times	15
10. Emergency phone is not readily accessible/operational*	13

*critical violation

The top violations for pools and spas increased in 2023. However, total alkalinity not maintained within required range and Pool Operating Permit not posted were noted out of compliance more often than compared to 2022. The top three noted violations for 2023 were: pool operating records are not maintained (20.6% out of compliance), total alkalinity is not maintained within required range (10.5% out of compliance), disinfectant residual not within the required range* (9.6% out of compliance),

The In's and Out's of CYA

Section 5(e)(ii) of the Clay County Pool Code states that cyanuric acid must not be used in indoor aquatic venues, spas, or therapy pools. Cyanuric acid and stabilized chlorine (Dichlor or Trichlor) should only be used in outdoor swimming pools only, not in indoor swimming pools, spas, or hot tubs. Cyanuric acid, also called stabilizer, conditioner, or CYA, forms weak bonds with chlorine compounds to prevent burn off from sunlight's ultraviolet rays. The benefit of cyanuric acid when properly used is reducing the amount of chlorine needed to maintain the appropriate residual amount. The drawback is a body of water that is increasingly difficult to balance. The higher CYA levels get, the more chlorine is needed. Using Dichlor or Trichlor makes it impossible to adjust one without the other. The only way to get rid of CYA is to drain the water. Indoor pools need to maintain the water WITHOUT cyanuric acid.



Operations and Records

Pool operating records not maintained as required was the most cited violation for 2022-2023 and has been trending up since 2020 for a 20.6% out of compliance rate with all pool facility inspections. Keeping proper records can take the guesswork out of pool and spa operations. Good records can help reduce wasteful spending, ensure employee and bather safety. Knowing what records to keep and how long to keep them is an important part of the facility's active management. CCPHC recently updated the Chemical Log document to help operator's keep record of all required chemical testing prior to opening and at least one other time while open to the public each day. Ask your inspector for a copy today!

- If your facility uses a contracted pool management company, someone onsite must be trained to test the water and record chemical levels at least twice a day to comply with the regulations.

Recreational Waters-Pool/Spa Operation Record
 8 1/2" x 11" (Landscape)
 Date: No. 0088
 Revised: 02/02/21
 Form# 1-201-220 RW-17-0

Month	Check Daily						Check Weekly	Check Bi-Weekly*	Chemicals Added	Spa Temp	Comments/Accidents	Operator Initials
	AM			PM								
	Free Chlorine	Combined Chlorine	pH	Free Chlorine	Combined Chlorine	pH						
1												
2												
3												
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*Cyanuric acid must be tested bi-weekly if stabilized chlorine is the primary disinfectant.

Flow Rates/Turnover Times

Water turnover times are critical for proper filtration. The CDC recommends all pools or spas have a turnover rate of 6 hours or less. Water that is recirculated three to four times per day, or every six to eight hours, will achieve 95 to 98 percent dilution of contaminated pool water with water that has been filtered and disinfected.

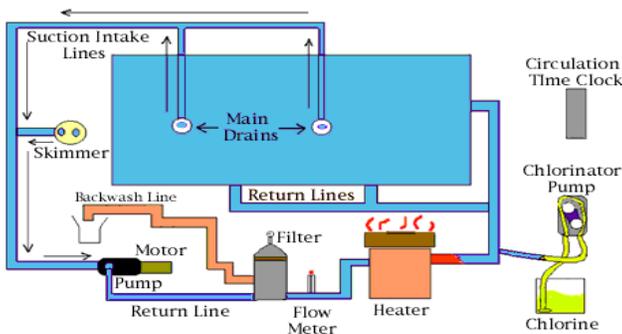
2024 Pool Season Updates

AQUATICS VENUE OPERATOR CLASSES

At Clay County Public Health Center

Aquatics Venue Operator Class

CCPHC's Aquatics Operator/Manager classes provides individuals with the knowledge, techniques, and skills required for proper pool operations. Certification is valid for 3 years.



Studies have shown that pools with operators who have successfully completed formal training have better water quality than pools without trained operators, and better water quality leads to better health for swimmers.

Last class of the 2024 summer pool season is June 27. Location is at the Clay County Public Health Center, 800 Haines Drive, Liberty MO 64068

<https://www.clayhealth.com/155/Pools>

Pool Safety Excellence Award

Clay County Public Health Center is proud to recognize the recipients of the Pool Quality of Excellence Awards for outstanding efforts in 2023. This notable award recognizes facilities that continue to successfully follow the Clay County Rules and Regulations for Pools/Spas. These recipients exhibited excellent pool quality and safety practices during their inspection throughout the calendar year. In order to qualify for the award, facilities must meet multiple criteria such as: being open and in operation for the full year with no repeated violations, no follow-up inspections, no confirmed cases of water-borne illnesses, no imminent risk or safety violations, Virginia Gram Baker (VGB) compliant and pool operator/manager certification. This achievement encompasses: 7 yearly pools, 2 yearly spas, 22 seasonal pools, 3 wading pools, and 1 sprayground. There were 5 multi award winners. Facilities qualifying for the 2023 Pool Quality of Excellence Award represented 30% of Clay County regulated recreational water facilities.



American Inn*

Broadway Village Apts

Cedar Lake Estates HOA

Cherokee Village*

Claymont Pointe HOA

Earnest Shepherd Memorial Youth

Elks #1001 Lodge

Gladstone Community Center

Gladstone Municipal

Harborview HOA*

Holiday Inn Express, NKC

Inn on Crescent Lake

Liberty Community Center*

Liberty Landing Cooperative

North Kansas City Hospital

Kendallwood Apartments

Oakwood Estates

Rollins Landing Pool

Royal Park Apartments

Shadowbrook HOA

Stonebrooke Estates

The Elms Hotel and Spa

The Trails

Village Garden Apartments*

* multi award winner.

Certificates will be delivered to the facilities during upcoming inspections.