



# Environmental Health Outlook

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

## Pool/Spa Program Activities in 2022

In 2022, the Clay County Public Health Center’s Pool/Spa program completed 445 inspections and trained 29 pool operators. Most trending violations from the past few years did see a decrease in 2022. However, 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	2022	2021	2020	2019
Disinfectant residual not within the required range*	33	49	38	68
Flow Rate	33	30	61	N/A
Pool operating records are not maintained as required	52	39	29	65
The pH is not within required range*	26	39	25	47
Combined Chlorine	29	18	13	N/A
Total alkalinity is not within required range	20	24	34	41
Cyanuric Acid is used, not within required range	7	29	17	41
Emergency phone is not readily accessible/operational*	13	20	12	20
Pool Operating Permit not posted	13	7	10	20

\*critical violation

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## Pool/Spa Program Violation Activity in 2022

Total Inspections Conducted	445
Critical Violations Cited	101
Non Critical Violations Cited	220

Field inspectors will be providing education and training materials throughout 2023 to help reduce violations. Ask your inspector for any training materials that can help maintain the quality and safety of the pools/spas in your facility.



## Top Violations Cited in 2021

	#Times Out
1. Pool operating records are not maintained as required	52
2. Disinfectant residual not within the required range*	34
3. Flow rates/Turnover times	33
4. Combined Cl is not within required range	29
5. The pH is not within required range*	26
6. Total alkalinity is not within required range	20
7. Emergency phone is not readily accessible/operational*	13
8. Pool Operating Permit not posted	13
9. Cyanuric Acid if used, not within required range	7
10. Facilities without lifeguards*	7
11. Chemical Storage/Signage	6
12. Barriers/Enclosures not Self Closing/Self Latching*	4

\*critical violation

The top violations for pools and spas decreased in 2021. However, total alkalinity not maintained within required range and Pool Operating Permit not posted were noted out of compliance more often than compared to 2020. The top three noted violations for 2021 are: disinfectant residual within the required range\* (12% out of compliance), pH not maintained within required range\* (9.6% out of compliance), pool operating records are not maintained (9.6% out of compliance).

## Top Violations Comparison for 2022-2021

	2022	2021
1. Flow rates/Turnover times	33	30
2. Disinfectant residual not within the required range*	34	38
3. Pool operating records are not maintained as required	52	29
4. The pH is not within required range*	26	25
5. Total alkalinity is not within required range	20	34
6. Cyanuric Acid if used, not within required range	7	17
7. Emergency phone is not readily accessible/operational*	13	12
8. Pool Operating Permit not posted	13	10

\*critical violation

## Operations and Records

Pool operating records not maintained as required was the most cited violation for 2022; and has been trending up since 2020 for a 13.2% 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  
 800 Water Line  
 Liberty, MO 64068  
 Revised 02/2021  
 Form# 1-201-220 RW-17-A

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.

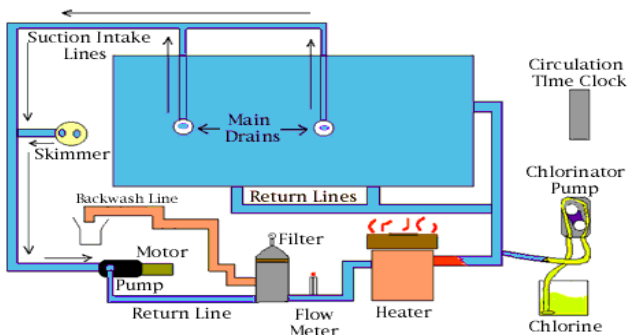
## 2022 Pool Season Updates

### 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.

Classes will take place on June 1 and June 20. Location is at the Clay County Public Health Center, 800 Haines Drive, Liberty MO 64068.

[clayhealth.com/pools](http://clayhealth.com/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 2022. 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: 11 yearly pools, 2 yearly spas, 15 seasonal pools, 3 wading pools, 1 outdoor spa and 2 sprayground. There were 8 multi award winners. Facilities qualifying for the 2022 Pool Quality of Excellence Award represented 29% of Clay County regulated recreational water facilities.



**American Inn**

**Broadway Village Apts**

**Cherokee Village\***

**Clay Creek Townhomes**

**Claywoods HOA\***

**Club at Marimack**

**Cooper Ridge Living**

**Dagg Park**

**Earnest Shepherd Memorial Youth**

**Excelsior Springs Comm Center**

**Gladstone Community Center**

**Harborview HOA\***

**Homestead HOA\***

**Holiday Inn Express, NKC**

**Liberty Community Center\***

**Meadowbrook Townhouse**

**North Kansas City Hospital\***

**North Kansas City YMCA**

**Oakwood Estates**

**Rainbow Splash Pad**

**Shadowbrook HOA**

**Stonebrooke Estates**

**The Elms Hotel and Spa**

**The Vintage HOA**

**Village Garden Apartments\***

**Wynbrick HOA**

\* multi award winner.

Certificates will be delivered to the facilities during upcoming inspections.