Recreational Water Printable Guidance Documents

- Daily Chemical Log Sheet – Class A/B

- Daily Chemical Log Sheet – Class C Without Pool Specific Staff

- Daily Chemical Log Sheet – Class C With Pool Specific Staff

- Hyperchlorination Records – Without Stabilized Chlorine

- Hyperchlorination Records – with Stabilized Chlorine

- Chemical Log Sheet – PIWF

- Recreational Water Violation Enforcement Guide

- Weekly Chemical Log sheet – Swimming pool or Spa

Daily Chemical Log Sheet – Class A/B

Time open:_____ Time closed:_____

Pool Name: Disinfectant Type: Pool Volume (gallons):

Date	Time	Free chlorine **OR** Bromine (ppm)	Combined Chlorine (ppm)	pH	ORP (mV)	Self-Closure			Notes (any action taken to correct chemical readings, formed stool or diarrhea in a pool or spa and remedial actions taken as a result, or any other significant action taken which impacts pool and spa water quality)
						Reason	Time closed	Time opened	

Daily records are required every 2 hours while the pool is open.   See 25 TAC 265.193 for more details   August 2024

Date	Time	Free chlorine OR Bromine (ppm)	Combined Chlorine (ppm)	pH	ORP (mV)	Self-Closure			Notes (any action taken to correct chemical readings, formed stool or diarrhea in a pool or spa and remedial actions taken as a result, or any other significant action taken which impacts pool and spa water quality)
						Reason	Time closed	Time opened	

Daily records are required every 2 hours while the pool is open.   See 25 TAC 265.193 for more details   August 2024

Daily Chemical Log Sheet – Class C w/o pool specific staff (such as lifeguards)

Month _____ Year _____

Pool Name: Disinfectant Type: Pool Volume (gallons):

Date	Time	Free chlorine OR Bromine (ppm)	Combined Chlorine (ppm)	pH	ORP (mV)	Closure Reason	Closure Time closed	Closure Time opened	Notes (any significant action taken which impacts pool/spa water quality)
1									
Retest									
2									
Retest									
3									
Retest									
4									
Retest									
5									
Retest									
6									
Retest									
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Retest									
11									
Retest									
12									
Retest									
13									
Retest									
14									
Retest									
15									
Retest									

Date	Time	Free chlorine OR Bromine (ppm)	Combined Chlorine (ppm)	pH	ORP (mV)	Closure			Notes (any significant action taken which impacts pool/spa water quality)
						Reason	Time closed	Time opened	
16									
Retest									
17									
Retest									
18									
Retest									
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Retest									
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Retest									
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28									
Retest									
29									
Retest									
30									
Retest									
31									
Retest									

Daily Chemical Log Sheet – Class C with pool specific staff (such as lifeguards)   Month _____Year_____

Pool Name: Disinfectant Type: Pool Volume (gallons):

Date	Time			Free chlorine OR Bromine (ppm)			Combined Chlorine (ppm)			pH			ORP (mV)		
1															
2															
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31															

Daily records are required 3x every day the pool is open.   See 25 TAC 265.193 for more details   August 2024

Date	Closure			Notes (any significant action taken which impacts pool/spa water quality)
	Reason	Time closed	Time opened	
1				
2				
3				
4				
5				
6				
7				
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31				

Daily records are required 3x every day the pool is open. See 25 TAC 265.193 for more details August 2024

Hyperchlorination Records – without Stabilized Chlorine

Facility: _____   Address: _____   Date: _____

Date	Time	FCl	pH	Notes

Hyperchlorination Procedures

Option 1: Raise free chlorine concentration to 10 ppm and maintain it for 25.5 hours (25 hours and 30 minutes).

Option 2: Raise free chlorine concentration to 20 ppm and maintain it for 12.75 hours (12 hours and 45 minutes).

Option 3: Raise free chlorine concentration to 30 ppm and maintain it for 8.5 hours (8 hours and 30 minutes).

Option 4: Raise free chlorine concentration to 40 ppm and maintain it for 6.375 hours (6 hours and 23 minutes).

*** pH must remain between 7.2-7.6 for the entirety of the hyperchlorination process.

1. Pool/spa must be closed immediately and for the entirety of the hyperchlorination procedure.
2. First record:
    a. Starting date/time
    b. Starting FCl
    c. Starting pH
    d. Amount of chemical added to the pool
    e. Whether or not the pool is closed at this time.
3. Second record (30 minutes after dosing pool):
    a. Testing date/time
    b. FCl
    c. pH
4. Continue measuring Free chlorine and pH every 30 minutes until free chlorine has reached the desired level.
5. The minute free chlorine is at or above the desired concentration, the clock begins.
6. Once the clock begins, free chlorine and pH must be tested and recorded at least once every hour.
7. The clock pauses if free chlorine tests less than the desired concentration or if pH is outside of the 7.2-7.6 range and does not continue until free chlorine and pH are back in range.
8. Note all chemical adjustments made to the pool.
9. If chemical adjustments are made, test FCl and pH levels after 30 minutes to confirm corrected chemical levels.
10. After the appropriate time frame has been reached, hyperchlorination has been completed.
11. You may allow FCl to fall on its own or with the help of chlorine reducer or Sodium Thiosulfate.
12. Continue to make note of all chemical adjustments and FCl and pH levels 30 minutes after adjusting.
13. The final record should include the following:
    a. Testing date/time
    b. Final FCl (within legal range)
        i. Pool: 1.0 – 8.0 ppm
        ii. Spa: 2.0 – 8.0 ppm
    c. Final pH (within legal range)
        i. 7.0 – 7.8
    d. Whether or not the pool is open for use at this time.

Hyperchlorination Records – with Stabilized Chlorine

Facility: _____ Address: _____ Date: _____

Date	Time	FCl	pH	Notes

Hyperchlorination Records – with Stabilized Chlorine

Hyperchlorination Procedures

Option 1: Raise free chlorine concentration to 20 ppm and maintain it for 28 hours.

Option 2: Raise free chlorine concentration to 30 ppm and maintain it for 18 hours.

Option 3: Raise free chlorine concentration to 40 ppm and maintain it for 8.5 hours.

** pH must remain between 7.2-7.6 for the entirety of the hyperchlorination procedure.

1. Pool/spa must be closed immediately and for the entirety of the hyperchlorination procedure.
2. First record:
   a. Starting date/time
   b. Starting FCl
   c. Starting pH
   d. Starting Cyanuric Acid
      i. If Cyanuric Acid concentration is more than 15 ppm, lower the concentration 1-15 ppm by draining partially and adding fresh water without chlorine stabilizer before attempting to hyperchlorinate.
   e. Amount of chemical added to the pool
   f. Whether or not the pool is closed at this time.
3. Use unstabilized chlorine to raise FCl.
4. Second record (30 minutes after dosing pool):
   a. Testing date/time
   b. FCl
   c. pH
5. Continue measuring Free chlorine and pH every 30 minutes until free chlorine has reached the desired level.
6. The minute free chlorine is at or above the desired concentration, the clock begins.
7. Once the clock begins, free chlorine and pH must be tested and recorded at least once every hour.
8. The clock pauses if free chlorine tests less than the desired concentration or if pH is outside of the 7.2-7.6 range and does not continue until free chlorine and pH are back in range.
9. Note all chemical adjustments made to the pool.
10. If chemical adjustments are made, test FCl and pH levels after 30 minutes to confirm corrected chemical levels.
11. After the appropriate time frame has been reached, hyperchlorination has been completed.
12. You may allow FCl to fall on its own or with the help of chlorine reducer or Sodium Thiosulfate.
13. Continue to make note of all chemical adjustments and FCl and pH levels 30 minutes after adjusting.
14. The final record should include the following:
    a. Testing date/time
    b. Final FCl (within legal range)
       i. Pool: 1.0 – 8.0 ppm
       ii. Spa: 2.0 – 8.0 ppm
    c. Final pH (within legal range)
       i. 7.0 – 7.8
    d. Whether or not the pool is open for use at this time.

Chemical Log Sheet – PIWF

Month _____Year_____

PIWF Name:_____   Primary Disinfectant: _____

Crypto. Prevention Method: Intermingled or Stand-Alone:

Date	Time		Free chlorine OR Bromine (ppm)	Combined Chlorine (ppm)	pH	ORP (mV)	Closure			Notes (any significant action taken which impacts water quality)
							Reason	Time closed	Time opened	
1										
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Daily records are required twice every day the PIWF is open.   See 25 TAC 265.306 for more details   August 2024

Weekly Records

Date	Time	Cyanuric Acid (ppm)	*Crypto.* Testing results	Hyperchlorinated?	Maintenance records		Notes
					Routine	Preventative	

Required Chemical Levels			
Chemical	Minimum	Ideal	Maximum
Free Available Chlorine	1.0 ppm	3.0 – 5.0 ppm	8.0 ppm
Bromine	2.5 ppm	5.5 – 7.5 ppm	12.0 ppm
pH	7.0	7.4 – 7.6	7.8
Combined Chlorine: Outdoor	0.0 ppm	0.0 ppm	1.5 ppm
Combined Chlorine: Indoor	0.0 ppm	0.0 ppm	0.5 ppm
Cyanuric Acid: Outdoor	0.0 ppm	20 ppm	50 ppm
Cyanuric Acid: Indoor	0.0 ppm	0.0 ppm	0.0 ppm

**Highlighted chemicals: outside of this range, the PIWF must be self-closed

<u>**Notice**</u>

<u>***Self-closure***</u>: *In order to be considered self-closed there must be restricted access into the PIWF (or the PIWF turned off) and signs posted notifying users of closure.*

<u>***Cyanuric Acid***</u>: *Test and record once every 7 days when using stabilized chlorine*

<u>***Intermingled:***</u> *test PIWF as well as the pool/spa and record results separately.*

Cryptosporidium Prevention Requirements

<u>Pre-2010</u>

Functional Secondary Disinfectant *(UV, Ozone, or other NSF/ANSI-50 product)*

Hyperchlorinate every 7 days *(See hyperchlorination log sheet)*

Stand-alone: Test for *Cryptosporidium* every 14 days

Co-mingled: Test for *Cryptosporidium* every 30 days

<u>Post-2010</u>

Functional Secondary Disinfectant *(UV, Ozone, or other NSF/ANSI-50 product)*

UV: must remain at or above 40 mJ/cm^2 at all times

AMARILLO AREA PUBLIC HEALTH DISTRICT
Cities of Amarillo, Canyon, the Villages of Timbercreek Canyon, Lake
Tanglewood, Palisades, the Town of Bishop Hills, and Potter and Randall County
CITY OF AMARILLO, P. O. Box 1971, Amarillo, TX, 79105-1971

Recreational Water Violation Enforcement Guide

Immediate Closure

- Disinfectant outside of legal range
- pH outside of legal range
- Bottom not clearly visible
- Broken, unsecured, missing drain cover
- Unprotected equalizer lines
- Missing or inoperable emergency phone
- No protection from Crypto (PIWF)
- Missing any safety equipment, w/ lifeguards:
  - Backboard & First aid kit
  - AED & BVM
- Missing any safety equipment, with or w/o lifeguards:
  - Ring buoy w/ rope
  - Body hook w/ reaching pole
- Glass or sharp objects on deck area
- Non-GFCI protected receptacles within 20 feet of pool/spa
- Underwater lights causing electrical hazard
- Electrical circuits or devices non-compliant with NEC
- Unprotected overhead electrical wires within 20 feet of pool/spa
- Unapproved chemical use
- Missing or inoperable pump or filter
- Failure of gates/doors to self-close and/or self-latch
- No depth or "NO DIVING" markers
- No transition lines on pool/spa stairs (where required via construction standard)
- Overcrowding

Abate within 24 hours

- Unsanitary or inoperable restrooms
- No test kit/expired reagents
- Shower inoperable or missing (Class A/B)
- Thermometer inoperable or missing (Spa)
- No vacuum breaker on hose bibbs
- No air gap on waste line
- Private water records missing or neglected
- Pool dirty or full of debris
- Broken spa timer

Abate within 30 days

- Flow meter inoperable or missing
- Flow rate more than 10% variation from design flow
- Skimmer grates inoperable or missing
- Insufficient lighting
- Deck, curb, or tile repair needed
- "NO DIVING" in 4-inch letters missing
- Handrail or ladder loose

Abate within 180 days

- Inadequate log sheets
- Required signage
  - Only when signage must come into compliance (new signs purchased, old signs replaced, no signs visible at all)
- Incorrect depth markers
  - Where correction is required via construction standard)
- Vacuum and pressure gauges inoperable or missing
- Improper backwashing practices.
- Construction standards that are now required due to a qualifying event
- Other violations that are not an immediate risk to a user's health or safety.

DEPARTMENT OF ENVIRONMENTAL HEALTH
808 S Buchanan
806-378-9472
FAX: 806-378-3585
TDD: 806-378-4229

September 2024

Weekly Chemical Log sheet – Swimming pool or Spa

Pool Name: Disinfectant Type: Pool Volume (gallons):

Date	Time	pH	Temp. (°F)	Total Alkalinity (ppm)	Calcium Hardness (ppm)	Langelier Saturation Index	Balanced? (yes/no)	Cyanuric Acid (ppm)	Notes

Water balance is required every 10 days; Cyanuric Acid is required every 7 days when stabilized chlorine is used.   See 25 TAC 265.193 for more information.   August 2024

Required Chemical Levels			
Disinfectant Level	Minimum	Ideal	Maximum
Pool Free Available Chlorine	1.0 ppm	2.0 – 3.0 ppm	8.0 ppm
Spa Free Available Chlorine	2.0 ppm	3.0 ppm	8.0 ppm
Pool Bromine	3.0 ppm	4.0 – 6.0 ppm	10.0 ppm
Spa Bromine	4.0 ppm	5.0 ppm	10.0 ppm
Combined Chlorine	None	None	0.4 ppm
pH	7.0	7.2 – 7.6	7.8
Cyanuric Acid	None	30 – 50 ppm	100 ppm
ORP	600 mV	650 – 750 mV	900 mV
Alkalinity	60 ppm	60 – 180 ppm	>180 ppm
Calcium Hardness in Pools	150 ppm	>150 – 400 ppm	1000 ppm
Calcium Hardness in Spas	100 ppm	150 – 400 ppm	800 ppm
Algae	None	None	None

**Highlighted chemicals: outside of this range, the pool/spa must be self-closed.

Langelier Saturation Index instructions

Saturation Index = pH + TF + CF + AF − 12.1

pH: Results from test kit
TF: Temperature Factor; measure at pool and locate on chart
CF: Calcium Hardness Factor; measure with test kit and locate results on chart
AF: Alkalinity Factor; measure with test kit and locate results on chart

Formula Result:

Above 0.5 = Water is over-saturated (scale-forming)

Between -0.5 and 0.5 = Water is **balanced**

Below -0.5 = Water is under-saturated (corrosive)

Temp. °F = **TF**	Calcium Hardness (ppm) = **CF**	Total Alkalinity (ppm) = **AF**
32°F = **0.0**	5 = **0.3**	5 = **0.7**
37°F = **0.1**	25 = **1.0**	25 = **1.4**
46°F = **0.2**	50 = **1.3**	50 = **1.7**
53°F = **0.3**	75 = **1.5**	75 = **1.9**
60°F = **0.4**	100 = **1.6**	100 = **2.0**
66°F = **0.5**	150 = **1.8**	150 = **2.2**
76°F = **0.6**	200 = **1.9**	200 = **2.3**
84°F = **0.7**	300 = **2.1**	300 = **2.5**
94°F = **0.8**	400 = **2.2**	400 = **2.6**
105°F = **0.9**	800 = **2.5**	800 = **2.9**
128°F = **1.0**	1000 = **2.6**	1000 = **3.0**