



Water Quality Regulations

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Both the U.S. Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) maintain regulations on the disinfection of public drinking water supplies. These regulations dictate the amount of disinfectant that must be present in water samples taken from various locations in the distribution system. This remaining disinfectant is referred to in regulations as a “residual.”

These regulations have changed over time to more effectively and efficiently protect public health. This brochure provides a summary of the EPA and TCEQ regulations and how they have changed over time, as well as the disinfection residual guidelines for other states in the U.S.

What is the minimum required chlorine disinfection residual in water systems allowed by the Environmental Protection Agency (EPA)?

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What is the minimum required disinfection residual in water systems according to the state of Texas?

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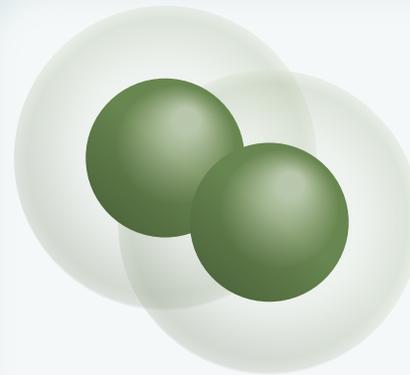
What are the minimum total-chlorine residual requirements in other states that use chloramines?

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What is the minimum required chlorine disinfection residual in water systems allowed by the Environmental Protection Agency (EPA)?

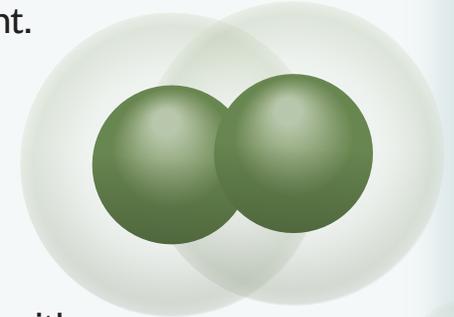
According to current EPA regulations, the residual disinfectant in the distribution system must be detectable in at least 95% of samples for consecutive months.

EPA regulations on disinfectant residuals have evolved significantly over the years and have been made less stringent with time. This could be due to the fact that the presence of disinfection residuals in the distribution system is known to be an effective indicator of water system integrity, regardless of the strength of the disinfectant.



FREE CHLORINE

When chlorine is added to water, it is added as **free chlorine**, which acts as a disinfectant.



COMBINED CHLORINE

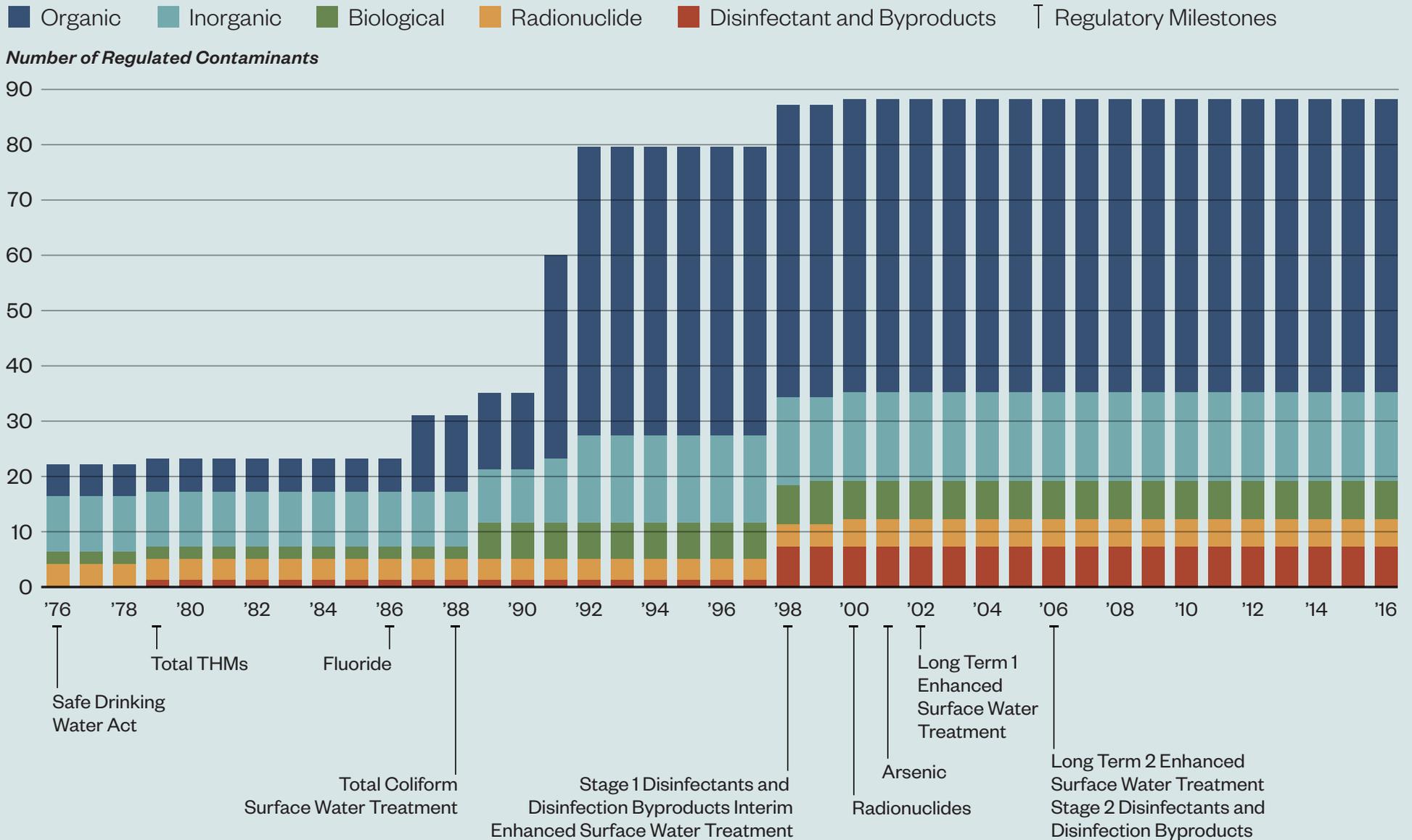
When chlorine is added in combination with ammonia or when chlorine combines with other constituents in water it forms **combined chlorine**. Chloramines are a form of combined chlorine.

TOTAL CHLORINE

Total chlorine is the sum of **combined and free chlorine**. When chloramines are used as a distribution system disinfectant, the residual disinfectant is measured as total chlorine.

Regulated Contaminants in Drinking Water

All public water systems monitor and treat water to comply with the increasing number of EPA-regulated contaminants that pose a health threat.



What is the minimum required disinfection residual in water systems according to the state of Texas*?

The Texas Commission on Environmental Quality (TCEQ) is an organization that works to protect public health and natural resources in the state of Texas. It helps develop and enforce regulations pertaining to water, air, and waste management.

According to TCEQ, the disinfection equipment shall be operated to maintain the following minimum disinfectant residual in each finished storage tank and throughout the distribution system at all times:

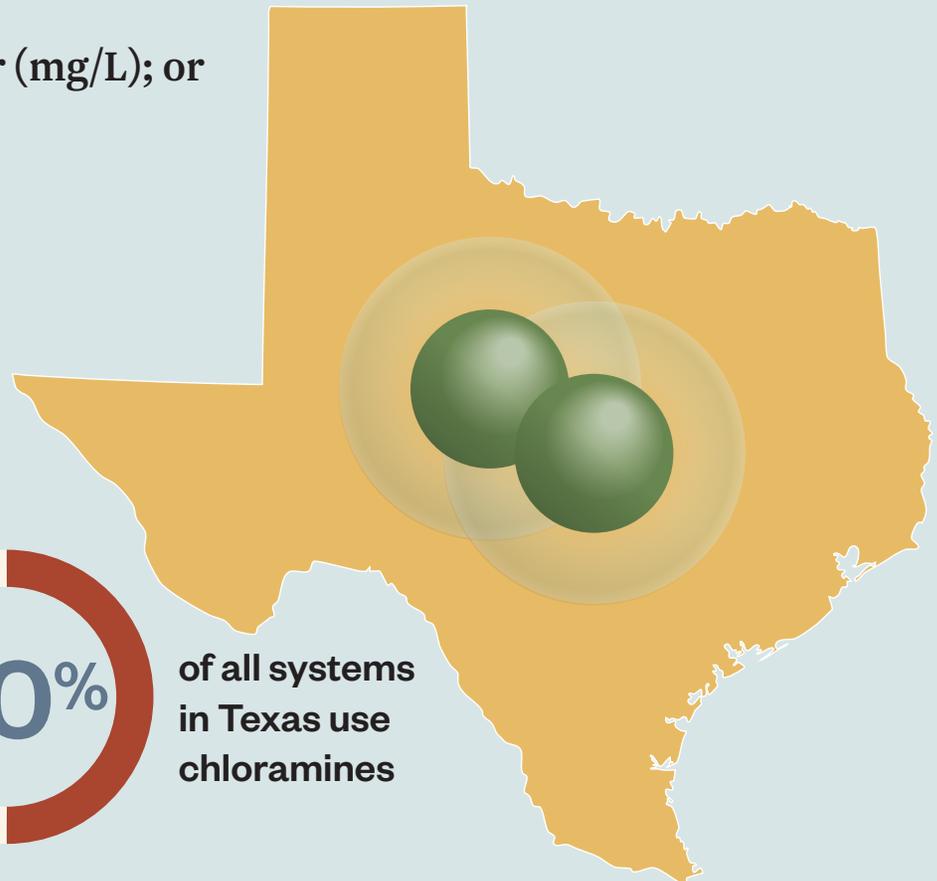
- A free chlorine residual of 0.2 milligrams per liter (mg/L); or
- A total chlorine residual of 0.5 mg/L for systems using chloramines



EPA estimates up to 57% of all surface water plants in the U.S. will use chloramine to comply with regulations



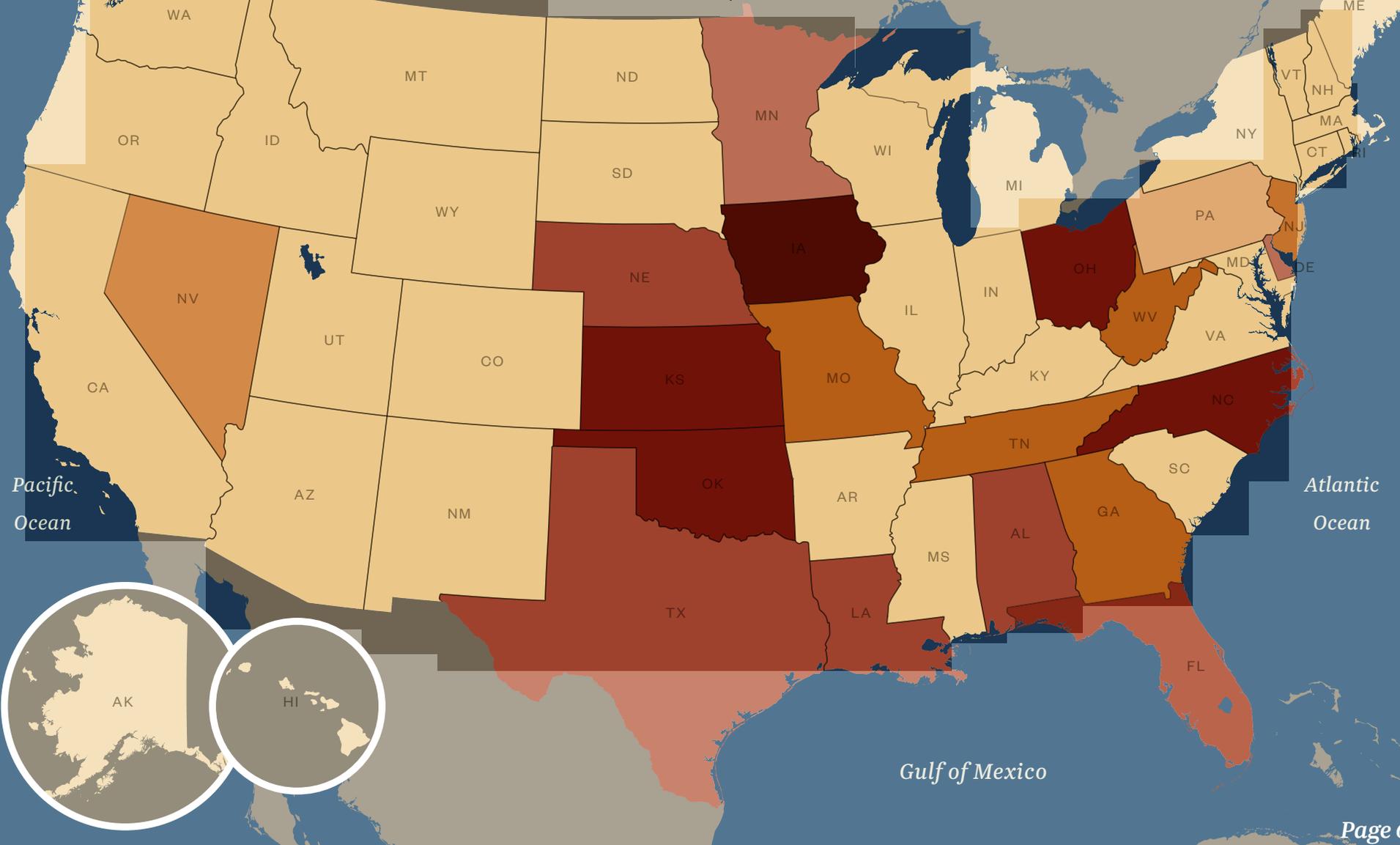
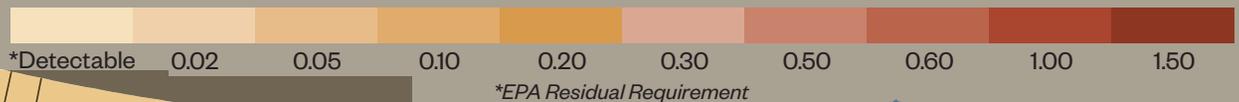
of all systems in Texas use chloramines



* TCEQ- Texas Administrative Code Chapter 290, Rule §290.46

What are the minimum total chlorine residual requirements in other states that use chloramines?

Minimum Residual Chlorine (mg/L)





Is our water safe for consumption?

The City of Corpus Christi operates the O.N. Stevens Water Treatment Plant (ONSWTP), which has a capacity of treating 161.5 million gallons of water per day. The ONSWTP-treated water is delivered to over 300,000 residents of Corpus Christi through a distribution system with 1600 miles of piping. The City of Corpus Christi Staff takes a number of proactive steps and performs regular monitoring, testing, maintenance, and upgrades to the water system. The City also invests in capital improvement programs to plan and provide for the needs of Corpus Christi's growing population.

In spite of such proactive measures, occasional, often unavoidable, water quality challenges may occur because of system age, wet weather events, changing regulatory

requirements, or contamination from third parties. The priority of the Corpus Christi Staff is to safeguard human health. While water challenges have occurred in Corpus Christi, none have resulted in an outbreak of waterborne diseases. In the event of a potential risk, our city's staff takes immediate action to contain and resolve the risk, while notifying the public to take appropriate precautions.

Due to the continued efforts of our city staff, the City of Corpus Christi's drinking water is in compliance with Federal and State regulatory requirements for safe drinking water according to Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) standards.