

In Texas, flushing regulations for water distribution systems are governed by both federal and state regulations to ensure the safety and quality of drinking water. These regulations are typically outlined by the **Texas Commission on Environmental Quality (TCEQ)**, which oversees public water systems in the state. Here are the key points regarding flushing regulations:

1. Routine Flushing

- **Purpose:** Regular flushing of water distribution systems is necessary to remove sediment, biofilm, and stagnant water from the pipes, ensuring water quality, taste, odor, and color.
- **Frequency:** The frequency of routine flushing varies depending on the system design, water quality, and customer needs. Systems are generally recommended to flush dead-end mains at least once every month.
- **Dead-End Mains:** Water systems must flush dead-end mains in the distribution system to maintain water quality. This is often required if disinfectant residuals fall below acceptable levels.

2. Disinfection Requirements

- Flushing must ensure that disinfectant residual levels (typically chlorine or chloramine) meet or exceed state and federal minimum standards.
- **Chlorine Residual Levels:** Water systems must maintain a total chlorine residual of at least **0.5 mg/L** throughout the distribution system.

3. Hydrant Flushing

- **Procedure:** Flushing hydrants is a common practice used to clear water lines and improve water quality. Hydrant flushing should be done at a velocity sufficient to remove sediments (usually around 2.5 to 5 feet per second).
- **Documentation:** Public water systems are required to keep records of all hydrant flushing events, including dates, locations, and duration of flushing.

4. Lead and Copper Rule (LCR) Flushing

- As part of the **Lead and Copper Rule**, public water systems may be required to perform flushing when changes in treatment or water sources could affect lead or copper levels.
- If lead levels exceed the action level of **15 ppb**, flushing may be part of the short-term response plan to reduce lead exposure.

5. Cross-Connection Control and Backflow Prevention

- Flushing may be required after repairs or changes to the distribution system to prevent contamination from cross-connections or backflow events.
- Regular flushing can help reduce the risk of contaminants entering the distribution system through cross-connections.

6. Emergency Flushing

- In cases of contamination or water quality emergencies, flushing may be required as part of the emergency response.
- If a **boil water notice** is issued, systems may need to flush the distribution system after the event to restore normal water quality.

7. Consumer Notifications

- Some cities or systems may require that the public be notified of routine flushing events. This is particularly important when it may cause temporary discoloration of water or sedimentation issues.

8. Flushing After Construction or Maintenance

- After any major repairs, new construction, or pipe replacements in the water system, a thorough flush is required to clear debris and ensure proper water quality.

References:

- **Texas Administrative Code (TAC), Title 30, Chapter 290:** Outlines regulations for public water systems in Texas.
- **TCEQ's Regulatory Guidance (RG-427):** Provides specific guidelines on water system flushing procedures.

It's important to consult with local water authorities or the TCEQ for system-specific requirements, as regulations may vary depending on the type of system and water source.