

Working at a wastewater treatment plant presents significant risks that should never be overlooked. While many tasks may seem routine, operators are exposed to hazards that can quickly become life-threatening. Tragically, numerous serious injuries and fatalities have occurred, especially when working alone, including recent events involving: an employee who fell 16-feet from a ladder into an empty clarifier; an employee who drowned after falling into a activated sludge retention pond while collecting samples; and an employee who became trapped in a pipeline while collecting samples due to a corrosion-related structural failure. Following established safety guidelines from [TCEQ Chapter 217, Subchapter M](#) can help reduce injuries and protect everyone on-site. Consider the following exposures and recommendations as well:

**1**

**Confined Spaces.** Even routine tasks in tanks or wet wells can and have injured workers due to asphyxiation, drowning, or fire-related hazards. Ensure and require that air monitoring/gas detection, adequate ventilation, a trained attendant, proper equipment, and documented rescue procedures are in place.

**2**

**Chemical Exposures.** Chlorine, acids, and other chemicals aren't just dangerous to workers, they can also corrode infrastructure, tanks, piping, and electrical systems, increasing the risk of equipment failure and falls. Always label, store, and handle chemicals according to their hazard class. Ensure chemical feed systems are inspected regularly for leaks or corrosion.

**3**

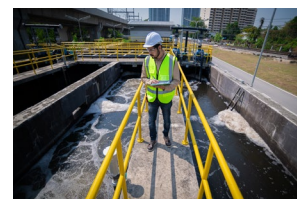
**Working Near Water.** Aside from the confined space risk, work in and around clarifiers and basins can be dangerous, especially during extreme weather or when operators are working alone. Use personal flotation devices and team-based work plans to help minimize risks.

**4**

**Working Alone.** Implement and follow a "buddy system" when possible or require direct check-ins when working in isolated parts of the plant or when accessing catwalks, basins, clarifiers, or chemical rooms. Consider work permits or other mitigation strategies to ensure backup and oversight. Supervisors should coordinate efforts when possible, before any lone work is approved.

**5**

**Working At Heights.** Identify areas where working at heights is necessary, such as elevated platforms, catwalks, or ladders. Evaluate tasks to determine when fall protection is required. Use controls like guardrails, safety harnesses, and lanyards when working at heights. Review ladder safety procedures, including proper ladders, set-up, usage, and the tie-off procedures.



#### LEARN MORE WITH THESE ADDITIONAL RESOURCES:

- TCEQ - [Wastewater Treatment Plants: Compliance Resources](#)
- Texas Administrative Code – Chapter 217 – [Design Criteria For Domestic Wastewater Systems](#)