

DEWATS Health and Safety

Wastewater systems are inherently dangerous. Follow best practices in health and safety to minimize risk to workers and the public.



Drowning hazard sign. Sewage lagoons and aerated tanks present a real hazard at DEWATS. Post appropriate warning signs and have safety equipment available.



Lock out breakers before servicing electrical equipment. Unlock only by the technician assigned to do the work..



Protect confined spaces with appropriate signage and train staff on proper entry procedures.

Background

Every year, people are killed or injured at wastewater treatment plants. Review the risks and mitigation measures below, and enact a health and safety plan at your DEWATS facility today.

Infection. Wastewater is infectious material. It is teeming with bacteria, viruses and other organisms that when ingested, can cause serious disease. Workers should always wear their personal protective equipment (PPE) and wash hands after handling equipment that may have contacted wastewater. Smoking and eating around wastewater systems is prohibited.

Drowning. Sewage lagoons, tanks, and especially aerated tanks pose a significant hazard. Secure these features with fencing and place placards around the facility advising the public of this danger. Treatment plant operators should work in pairs when performing maintenance around these components. Safety ropes, hooks, and floatation devices should be available when workers are performing maintenance around ponds and tanks.

Electrocution. Mechanized equipment at DEWATS is often connected to high voltage power. Management at DEWATS facilities should implement a **lock-out tag-out** electrical maintenance program where a supervisor locks out a breaker before the work can begin, and only the worker assigned the task can unlock the breaker when the work is finished.

Explosion. In 1992 in Guadalajara Mexico, a sewer line exploded killing 252 people and injuring 500 more. More than 8 km of city streets had to be repaired. The cause was gasoline from a leaking tank made its way to the sewer. The explosion is believed to have occurred when a worker threw his cigarette. Smoking in and around treatment plants and sewers is prohibited. Septic tanks and sewers can generate methane, an odorless gas that can explode. Electrical panels and junction boxes must be protected by using proper enclosures (NEMA 4 explosion proof junction boxes for example). Conduit seals should be placed wherever electrical lines run from tanks or basins.

Asphyxiation. Confined spaces may be tanks, manholes, basins or even excavations that limit the movement of oxygen from the atmosphere. Every year people die in septic tanks or confined spaces. One person enters the tank and passes out, then a family member or friend goes in to help and also succumbs. Sometimes, whole families are killed. Managers should enact a confined space entry program and train workers on the proper methods for first evaluating the confined space for environmental hazards, and then safely entering the space to perform the work. Don't be a victim of this common and deadly accident