SLIP & TRIP PREVENTION FOR WATER & WASTEWATER UTILITY BEST PRACTICES

Slips and falls are among the leading causes of workplace injuries in water and wastewater facilities. Wet surfaces, uneven flooring, and chemical residues, such as polymer, create high-risk conditions that can result in serious injuries, lost productivity, and costly claims.

Common Slip Areas

- Treatment Plant Walkways & Platforms: Often wet from process water or cleaning.
- Clarifiers, Aeration Basins, and Pump Stations: Exposed to moisture and algae buildup.
- Polymer storage areas. Spills or leaks from storage tanks or hoses can cause polymer to build up on the floor. A polymer can be extremely slippery.
- Vault Lids, Grated Walkways, and Meter Boxes: Can flex or shift underfoot if not secured.
- Sampling Locations: Wet and uneven surfaces during water sample collection.
- Entryways and Break Rooms: Snow, ice, and tracked-in water during the winter months.

Polymer Slips

Polymer is commonly used in the water and wastewater industry. Leaks and spills can create very slippery conditions. Create awareness of the slip hazard by posting signage around polymer storage areas stating the area may be slippery and informing employees of the hazard. Encourage employees to report near misses or incidents where they slipped but did not fall or injure themselves. Investigating near misses can help prevent injuries from occurring in the future.

Always consult the Safety Data Sheet (SDS) of the chemicals in your facility before responding to a spill or a leak and don proper personal protective equipment (PPE). Leak detection systems and regular assessments of equipment can prevent spills or leaks from occurring.

In the event of a leak or spill, contain and absorb the spill using absorbent material. Place the material in a waste disposal container and ensure the surface is completely dry, then flush the area with warm water, and spread sand or grit on the surface.

Control Measures

- Conduct Regular Risk Assessments
  - Identify high-risk zones such as wet wells, slop sinks, and areas with heavy foot traffic.
  - Review incident reports and near-misses for patterns.
- Improve Walking and Working Surfaces
  - Install slip-resistant flooring or apply anti-slip coatings on wet platforms and stairs.
  - Ensure grated walkways are free of mud, algae, and standing water.
  - Repair cracks, uneven surfaces, and loose tiles promptly.
  - Coil hoses after use, so they are not lying on the ground, creating a trip hazard.
- Maintain Clean, Dry, and Organized Floors
  - Implement scheduled inspections and cleaning, especially in high-hazard areas.
  - Use “Wet Floor” signage immediately after cleaning or spills.
  - Store tools and ladders properly to avoid trip hazards.

- Enhance Lighting
  - Ensure all walkways, stairs, and enclosed areas have adequate illumination.
  - Install backup lighting systems for power outages.
- Footwear and PPE
  - Require slip-resistant shoes for all staff working in wet environments.
  - Verify footwear meets your Job Hazard Assessment requirements.
- Seasonal and Environmental Controls
  - Clear snow and ice promptly from entryways and outdoor walkways.
  - Apply grit or mats in high-traffic areas during the winter months.
- Engineering Controls
  - Install guardrails or fall restraint systems near tanks and elevated surfaces.
  - Use drainage systems to prevent water pooling on floors.

Action Items

- Schedule regular slip hazard inspections in common slip areas.
- Reinforce awareness during toolbox talks.
- Update Standard Operating Procedures (SOP) for working near water and ensure compliance with PPE requirements.
- Post warning signage in polymer storage areas.