

Water Quality Sampling Generic Job Hazard Analyses

Required Protective Clothing and Safety Equipment: latex gloves, eye protection, emergency eye wash, acid spill kit, MSDS's, Hazard Communication & Chemical Hygiene Plans

Sequence of Basic Job Steps	Potential Accidents/Hazards	Recommended Safe Job Procedures
Collecting Water Quality Samples	Accidents and injuries	Employees collecting water quality samples must be familiar with the content, and follow the requirements described in the: TWRI Book 9, National Field Manual for the Collection of Water-Quality Data, Ch A9. Safety in Field Activities. WSC District Hazard Communication Plan, and the WSC District Chemical Hygiene Plan It is the responsibility of the project chief to supply appropriate training for hazard communication, chemical hygiene, and lab safety.
If collecting sample by wading the stream.	Failure to follow USGS procedures for working in and around water may result in serious injuries and drowning.	See JHA for Wading Measurements.
If collecting sample from a bridge.	Failure to follow TxDOT traffic regulations and traffic control plans may result in traffic or pedestrian accident and death.	See JHA for Bridge Measurements. Set up traffic control equipment using Traffic Control Plan <>.
If collecting samples from a boat.	Personal & boating public safety. Water craft safety.	See JHA for Boat Measurements Boat operator must be a USGS certified motorboat operator.
Processing of water quality samples – Filtering sample	Flying projectiles (pump tubing may come off because of clogged sample filter)	Watch filter for clogging. Change filters often on water sample with high sediment content. Wear safety goggles and safety clothing to prevent water contact with skin.
Processing of water quality samples – Sample preservation	Damage to eyes, acid burns, cuts, inhalation of harmful chemicals.	Open ampoules and treat samples inside a portable processing chamber. Wear safety goggles and protective gloves. Use an ampoule breaker. Point the ampoule away from you when snapping off the top. If acid splashes in the eyes, flush eyes 15 minutes with water. Seek medical aid. If acid splashes on skin or if skin itches, flush area for 15 minutes with water. Always work in a well ventilated area.
Chemical Hygiene	Sample contamination. Exposure to hazardous materials. Improper chemical use, chemical transport, and hazardous waste handling.	All chemical uses will meet the standards of the WSC District Chemical Hygiene Plan (CHP). Vehicles that transport chemicals shall be equipped with the WSC District CHP and applicable Material Data Safety Sheets (MSDS's). Chemicals will be transported in compliance with DOT regulations -appropriately labeled, containerized in a manner to eliminate accidental release, and be accompanied by MSDS information. Waste will be returned to the operation office for storage and disposal.