

Instructions for Sampling Low-Level Mercury

Clean sampling techniques, as described in EPA Method 1669, are required when handling samples for Low-Level Mercury. This will reduce the chance of contamination from field or laboratory procedures. This method requires that a minimum of two people working together. One person will be designated as clean hands (CH) person and the other will be designated as the dirty hands (DH) person.

Both CH and DH must wear appropriate disposable, powderless gloves during the entire sampling operation and change gloves frequently, usually with each change in task. (Wearing multiple pairs of gloves allows for rapid glove changes). **NOTE: Gloves must be appropriate to withstand any acid, solvent, or other chemical substance that will be used or contacted.**

CH takes care of all operations involving equipment that contacts the sample—for example:

- Handles the surface-water sampler bottles
- Handles the discharge end of the surface-water or ground-water sample tubing
- Transfers sample to churn or cone splitter
- Prepares the clean workspace (inside vehicle)
- Sets up processing and preservative chambers
- Places equipment inside chambers (e.g., sample bottles, filtration and preservation equipment)
- Works exclusively inside chambers during collection/processing and preservation
- Changes chamber covers as needed
- Sets up field-cleaning equipment and cleans equipment

DH takes care of all operations involving contact with potential sources of contamination—for example:

- Works exclusively exterior to processing and preservation chambers
- Prepares and operates sampling equipment, including pumps and discrete samplers, peristaltic pump switch, pump controller, manifold system
- Operates cranes, tripods, drill rigs, vehicles, or other support equipment
- Handles the compressor or other power supply for the samplers
- Handles tools such as hammers, wrenches, keys, locks, and sample-flow manifolds
- Handles single or multiparameter instruments for field measurements
- Handles the chum carrier, including outer protective bags
- Handles stream-gauging or water-level equipment
- Sets up and calibrates field-measured instruments
- Measures and records water levels and field measurements