



Instructions for Collection of Water and/or Swab Samples for Legionella Analyses

Cooling Towers, Evaporative Condensers and Air Handling Units

Collect at least 100 milliliters of water from the system.

Do not fill the containers to maximum capacity; leave approximately one inch of air space in the neck of the container.

Samples are typically collected from the tower basin at the furthestmost point from the source of the make-up water and biocide feed. If possible, samples should be free of the sediment that normally collects on the bottom of the basin. If there is not enough water available, a swab sample may be collected from any biofilm and/or moisture present on the drain, condensate pans, or coils. Swab samples must be collected with special charcoal swabs that support Legionella growth. Remove the swab from the tube. Carefully swipe the surface back and forth while rolling the swab to uniformly cover the swab tip. Replace the swab in the tube of media.

***IMPORTANT:** Samples should NOT be collected immediately following the addition of disinfectants or biocides to the cooling tower. It is strongly recommended that samples be collected no sooner than 48 hours after the addition of any disinfectants/biocides to the system.

Potable Water Systems

Collect a minimum of 250 milliliters of water from Potable Water systems.

Do not fill the containers to maximum capacity; leave approximately one inch of air space in the neck of the container.

Potable Water is a general category that includes Hot Water Tanks, Faucets, Showerheads, City Water, Decorative Fountains, and Whirlpool Spas.

1. Hot Water Tanks

Samples should be collected from the bottom of the tank immediately after opening the drain valve (if necessary, let water run a minimum of 10 seconds to purge the drain line).

2. Faucets and Showerheads

Water samples should be collected at various sites throughout the facility, depending on the type of exposure that may be encountered and the distance from the hot water heaters. Because the *Legionella* bacteria multiply inside of the faucet, the concentrations will be highest immediately after turning on the water. Thus, the best sample will be the first draw of water out of the faucet, preferably a faucet that has not been used for several hours.

Swab samples must be collected with special charcoal swabs that support *Legionella* growth and must be taken prior to collection of bulk water samples. Remove the swab from the tube. The faucet or showerhead should be extensively swabbed inside as far as possible. Carefully swipe the surface back and forth while rolling the swab to uniformly cover the swab tip. Replace the swab in the tube of media. If the faucet has an aerator, it should be removed and swabbed on the inside, particularly the rubber gasket.

3. City Water

This sample is intended to monitor the *Legionella* bacteria entering the facility from the city water supply. As such, this sample should be taken from a point as close as possible to where the water enters the facility. Since this sample is intended to analyze the incoming water, the faucet or drain valve should be opened and flushed for a minimum of 30 seconds before collection of sample.

4. Whirlpool, Jacuzzi, Swimming Pool, and Decorative Fountain Samples

The number of bacteria in pools, particularly whirlpool spas, often varies greatly during the day and from day to day. Thus, any one sample is really only a spot check of the water. Ideally, these samples should be taken when the disinfection conditions are at their weakest (i.e. generally toward the end of the day or after any period of heavy usage), although other times are also acceptable. The sample bottles should be filled by collecting from the surface of the water. It is also a good idea to collect these samples while pool pumps, blowers, etc. are operating, although it is not absolutely necessary.

Please contact our office with any additional questions regarding *Legionella* sample collection at (502) 893-6080 or est@estechlab.com.

SHIP SAMPLES OVERNIGHT TO:

Environmental Safety Technologies, Inc.
1815 Brownsboro Road
Suite 200
Louisville, KY 40206