



LEGIONELLA SAMPLING INSTRUCTIONS

CIRCUMSTANCES AND SAMPLE VOLUMES

Routine Monitoring For routine environmental surveillance, one sample, either swab or water of an outlet is acceptable. We recommend 250 mL sample volume.

Post-disinfection Monitoring Ongoing surveillance for monitoring the efficacy of disinfection efforts should include previously positive locations for follow up testing.

Suspected Case Investigation Optimal sensitivity is desirable in the context of a case investigation; therefore, two samples, water and swab, should be collected from the same water outlet(s) in the immediate environment of a suspected case. Health departments will often recommend that a larger volume of water (1 liter) be collected.

What is different when routine sampling volumes (250 mL) are processed vs. 1 liter samples? Potable water samples are filter concentrated through a very small pore size (0.2 micron) filter. When 1 liter is filtered more of the unwanted non-*Legionella* are brought along with the *Legionella* bacteria. The laboratory must use additional processing steps (multiple pre-treatment steps and additional selective culture media) to isolate *Legionella*. The above steps increase the time and materials required to process each 1 liter water sample.

SAMPLE COLLECTION

Water Outlets (Potable Water)

1. Use waterproof pen to label bottle or swab with sample location, description, and date.
2. Swab collection (if performed):
 - a) Remove aerator if present.
 - b) Moisten the outlet by briefly turning on the water.
 - c) Insert swab into faucet opening rotating four times against the inner surface as it moves up into the opening (for a shower head, rotate swab over entire surface of showerhead four times).
 - d) Replace swab in transport tube.
3. Water collection:
 - a) Turn on water and immediately fill the bottle to ≥ 200 mL. Hot water is preferred for routine monitoring and case investigation purposes.
 - b) Close bottle and invert to mix the sodium thiosulfate neutralizer.

Cooling Towers

Submerge open bottle just under the surface of water away from fill lines or outlets. Obtain approximately 120 mL of sample. Invert to mix the sodium thiosulfate neutralizer.

Note: Swabs are not considered an appropriate sample for routine testing of cooling towers.

Ice Machines

The ice is processed in the lab after allowing it to melt and is concentrated by filtration. One 500 mL sample bottle of ice or two 250 mL bottles are required for adequate melted volume. If a water dispenser is part of the machine, collect the water as you would from any faucet: turn on the faucet and immediately fill the sample bottle.

Note: A swab of the faucet opening can also be collected and is recommended if assessing the outlet as a source of infection during a case investigation.

CHAIN OF CUSTODY

1. Fill out the Chain of Custody with indelible ink.
2. Make sure all samples match the samples listed on the CoC.
3. For more detailed instructions visit: Instructions – *Legionella* and Waterborne Microorganisms – Pace® Analytical.

SHIPPING

1. Ship samples the same day they are collected for receipt in the laboratory next day using provided shipping labels.
2. Place bottles in box with insulated liner.
3. Use the included return tape to seal your box for return shipping. Make an "H" with the tape by affixing tape evenly across the flaps and seams along the top of the box.

Maximum holding time for *Legionella* samples collected in New York or processed via ISO11731 is 48 hours. Do not exceed 3 day holding time for samples collected for the modified CDC method.



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