



## Standard Operating Procedure for Transportation of Composite Wastewater Samples to Public Health Laboratories

**Purpose & Scope:** To describe procedures for safe transfer of wastewater samples from Wastewater Treatment Plants to your State Health Department's Laboratory for RNA extraction and analysis.

**Sample Description:** For shipping purposes untreated wastewater and sludge from Publicly Owned Treatment Works (POTWs) are considered to be "diagnostic specimens" and are therefore not subject to restrictions on shipping. Nevertheless, 24-hour composite samples of untreated wastewater influent may contain a variety of infectious human pathogens including (but not limited to) norovirus, hepatitis A, and SARS-CoV-2 and should therefore be handled with care.

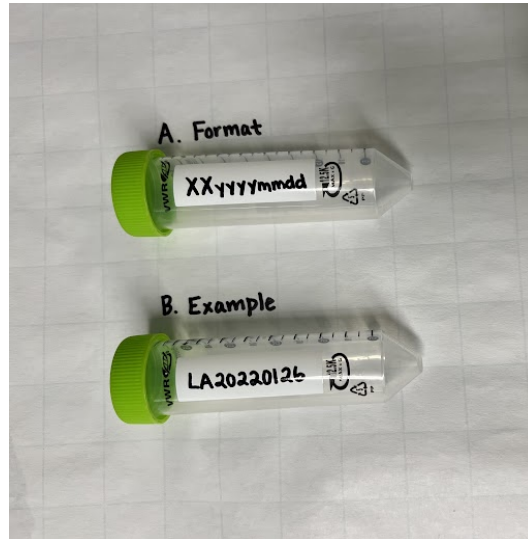
### Supplies:

- Sample containers - 50mL Conical Centrifuge tubes
- Cold Packs
- Absorbent shipping pad or paper towels
- Reusable Insulated Foam Shipping Cooler with cardboard exterior - 6x5x4.5in Uline or similar
- Ziploc Quart bag for double sample containment
- Ziploc Gallon bag for sample documentation
- Bleach or alcohol wipes
- Alcohol resistant marker for labeling
- Sampling PPE

### Sampling & Packing Procedure:

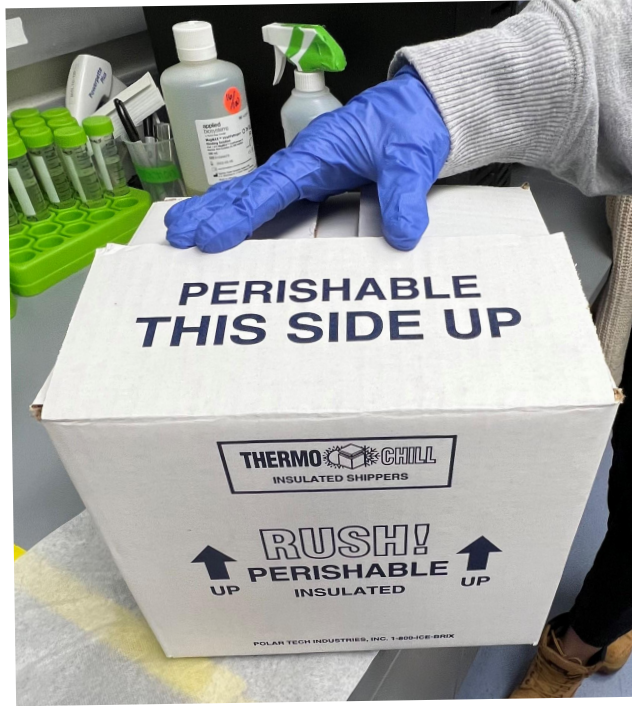
- Individuals handling sample bottles should wear appropriate PPE, including but not limited to gloves, lab coat, goggles, or face shield.
- Pour the SARS-CoV-2 samples from the 24-hour flow-weighted autosampler at the designated sampling point, ensuring that the sample is well mixed prior to filling each sample container. Allow sufficient headspace in all containers to compensate for pressure and temperature changes.

- Ensure that all lids are tight and will not leak.
- After filling, wipe the outside of all containers with 70% ethanol or 10% bleach solution.
- Label bottles clearly with alcohol resistant ink using a unique sample identifier provided by the wastewater coordinator followed by the year, month, and day such as “IDyyyyymmdd”.



- Place bottles inside a Ziploc bag and seal the bag.
- Insert the samples into a polystyrene shipping box, with an ice pack (include 2 ice packs if using the 3oz packs). Fill the remaining space with absorbent material (newspaper, paper towels).
- Fill out and print the appropriate lab requisition or chain of custody form from your participating laboratory and place inside with sample for shipping.
- Close and tape the lid.





## Shipping Procedure:

If using a courier service:

- Work with your participating laboratory to coordinate a courier service to pick up your samples.
  - **\*\*Enter your health departments instructions for scheduling a courier service\*\***

If using FedEx:

- Please request a FedEx account number from the \*enter wastewater program point of contact here\*.
- Ship the samples via FedEx PRIORITY OVERNIGHT so they arrive by **\*\*enter arrival time here\*\*** on the following day.

### Shipping Address

**\*\*Enter your health department laboratory shipping location here\*\***

## Sample Receiving Procedure:

- Lab staff will don PPE before unpacking the box.
- The box should be unpacked next to the Biosafety Level 2 (BSL2) cabinet and bags containing samples transferred to storage without opening.
- Before being opened, containers should be transferred into the BSL2 cabinet and be wiped down with bleach or ethanol. Samples should only be opened inside the BSL2 cabinet by individuals wearing appropriate PPE.
- Containers showing any signs of leakage or cracking should be transferred to fresh tubes inside the BSL2 cabinet or simply autoclaved and discarded.

## Contact Information:

- **\*\*Enter your team's contact info here\*\***