Bioaerosol (Viable Air Sample) Collection/Shipping Guidelines

Method: Quantitative culture using appropriate media for bacteria and/or fungi. The concentrations of viable organisms are expressed as colony forming units per cubic meter (CFU/m^3) of air.

Collection:
SAS 180/360 air samplers are available for rent from U.S. Micro-Solutions.

ORGANISM	AGAR MEDIA
Bacteria	Tryptic soy w/ or w/o sheep blood
Fungi	Inhibitory mold, Sabouraud dextrose, Malt extract
Mycobacteria	Middlebrook
Staphylococcus/MRSA	Mannitol salt
Legionella	DGVP, CCVC, GPCV

1. Use appropriate sampling media (see table above).
2. Use aseptic technique throughout the collection process.
3. Label the agar plate with the sample number.
    - *Do not use masking tape for the label.*
    - *Agar media should be at room temperature before sampling.*
    - *Do not touch agar surface.*
5. Sampling durations of 1 to 5.5 minutes (200-1000 liters w/ SAS 180) are commonly used.
    - *Heavily contaminated areas (visible fungal growth) may be sampled for a shorter time, e.g. 1 minute.*
    - *Areas with low levels of contamination (pharmacy rooms, clean rooms, remediated areas) may be sampled for a longer duration, e.g. 3-5 minutes.*
6. Collect an indoor sample from an unaffected area to serve as a control.
7. Collect a representative outdoor sample to provide a reference for determining whether certain fungi are being amplified in the indoor environment.
8. Submit a blank unexposed agar plate with each sampling event to serve as a negative control.
    - *For blank samples, do not list a sample volume.*
9. Replace lids on all agar plates and seal the perimeters of the plates with electrical tape.
    - *Do not use Scotch tape or duct tape.*

Shipping:
1. Clearly label each sample with a Sample Number and complete the Chain of Custody (COC).
2. Place sealed plates in a Ziploc bag in a box with sufficient packing material to prevent damage along with the completed COC form.
3. Ship samples Monday through Friday for receipt within 24 hours of collection.