

Verification Test Project Planning



Project Planning

Customer	Building Address	Project Name	Project ID
JP Health Club	3289 West St. Mesa, AZ	Aerosol Reduction in Reception	1645

Test Number	Test Type	Sprayer
1	Verification	eSprayer 65 psi

Test Area	Ceiling Height	No. of OP	No. of SP
179 ft ²	10 ft	1	1

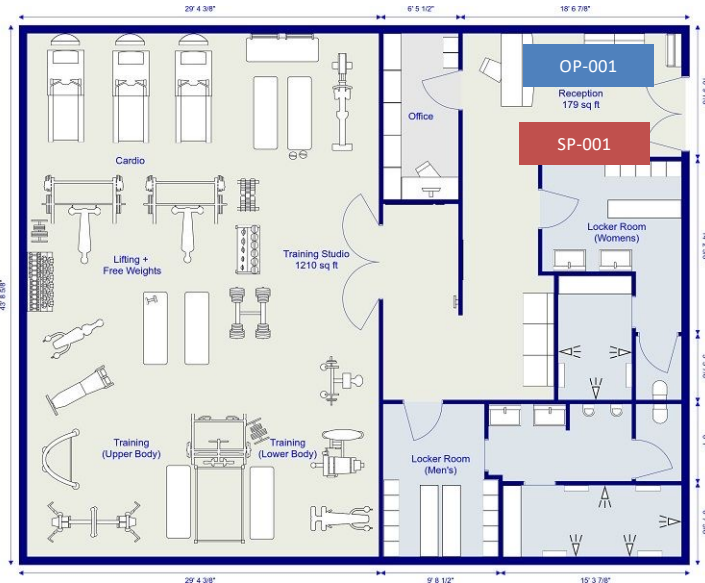
Tag Series	Scenarios	Survey Date	ACH Setting	Interval Count	Interval Duration
C	1	2-18-26	60	4	5 min

Comments	
Start Time: 0800	Doors Open; In/Out Traffic

Scenario 1				
Description	OP Name	Tag	Tag Lot Number	Samples
Normal Ops	OP-001	C-1	20250725	SN-001 to SN-004

Verification Test Set-Up

1. Verify the location
2. Measure the area and ceiling height (+/-) 10%
3. Make sure you have the correct Tag, number of tags, eSprayers and Air Samplers



Area (sqft)	Air Samplers	eSprayers	Wireless Remotes
<2,000	1	1	0
2,001 to 4,000	1	2	2
4,001 to 6,000	2	3	3
6,001 to 8,000	2	4	4

Verification Test Set-Up

4. Pressurize eSprayer to 65 psi
5. Place eSprayer on floor under or close to a Supply (NEVER) under a Return!
6. Place 4-C Air Sampler face in the opposite direction of the eSprayer at least 3-5 feet from the ground
7. Turn the Air Sampler Interval Knob to 8 ACH (UL)



Origin and Sample Point Placement

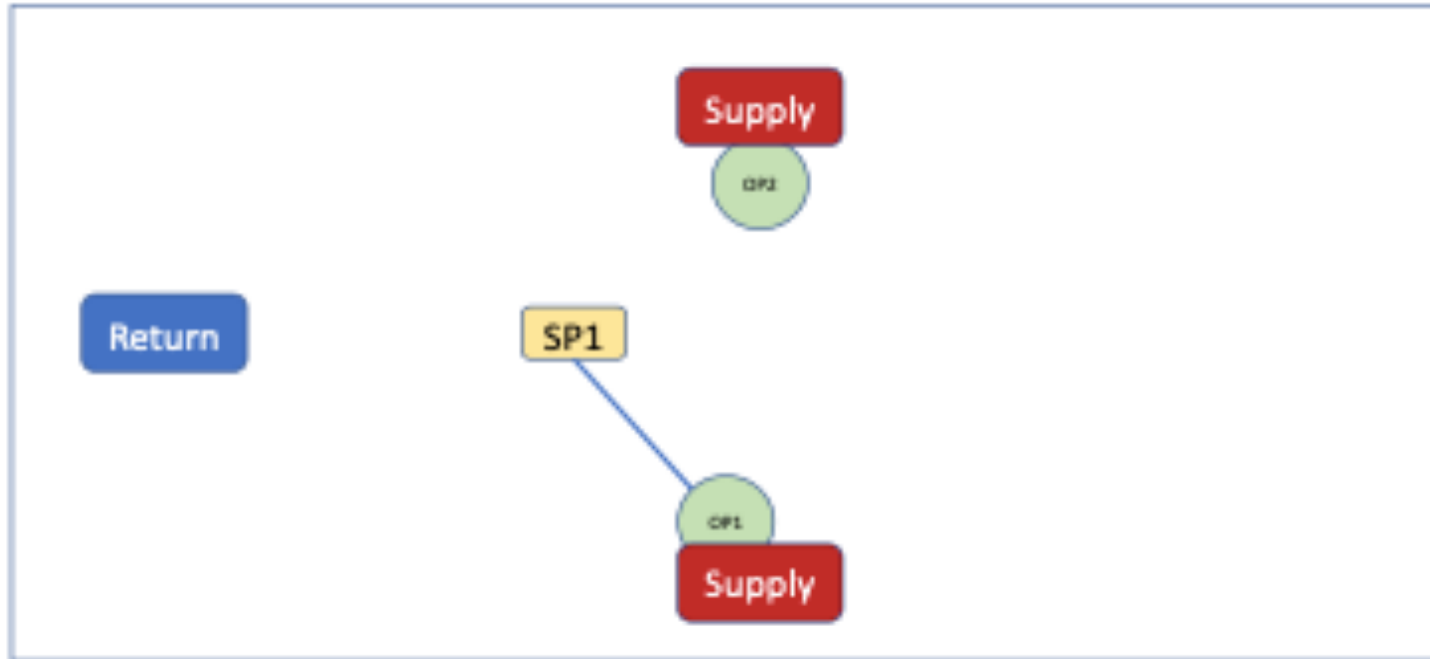
- **Origin Point Placement**

- Origin Point locations for (placement of the eSprayer) should be under or close to a HVAC Supply, if one is present in the test location
- eSprayer should be placed on the floor and not on desks, chairs, etc...
- **Caution:** If eSprayer is placed under a HVAC Return the DNA Tag will most likely be “sucked up” and result in a “invalid” test result

- **Sample Point Placement**

- Sample Point locations (placement of the 4-Channel Air-Sampler) should be under or close to a HVAC Return if one is present in the test location
 - The 4-Channel Air-Sampler placed opposite of the eSprayer and pointing (sample cassettes) in the direction of a HVAC Return
 - Air Samplers should be placed at least four-feet from the ground
-

Positioning of eSprayer and Air Sampler



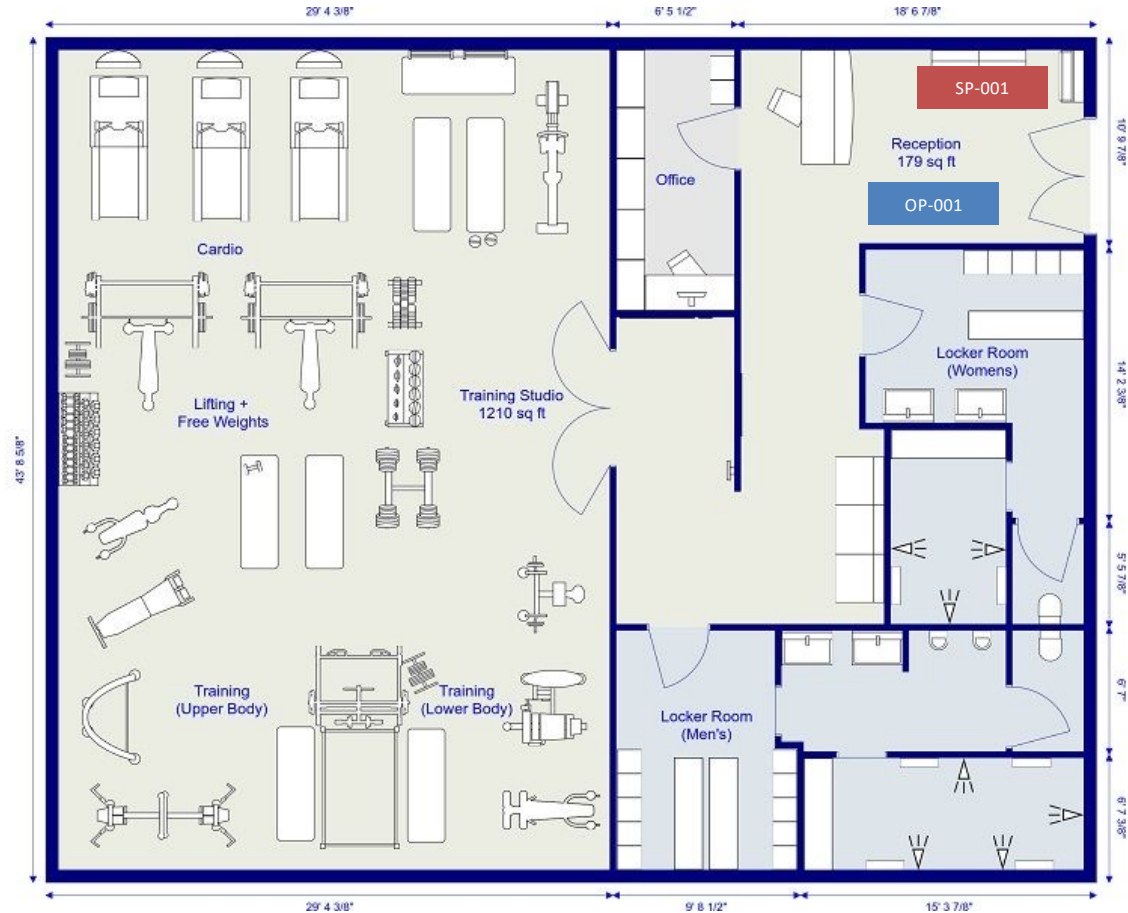
Manage Origin Points (OPs) and Sample Points (SPs)

Origin Points

OP-001: Reception

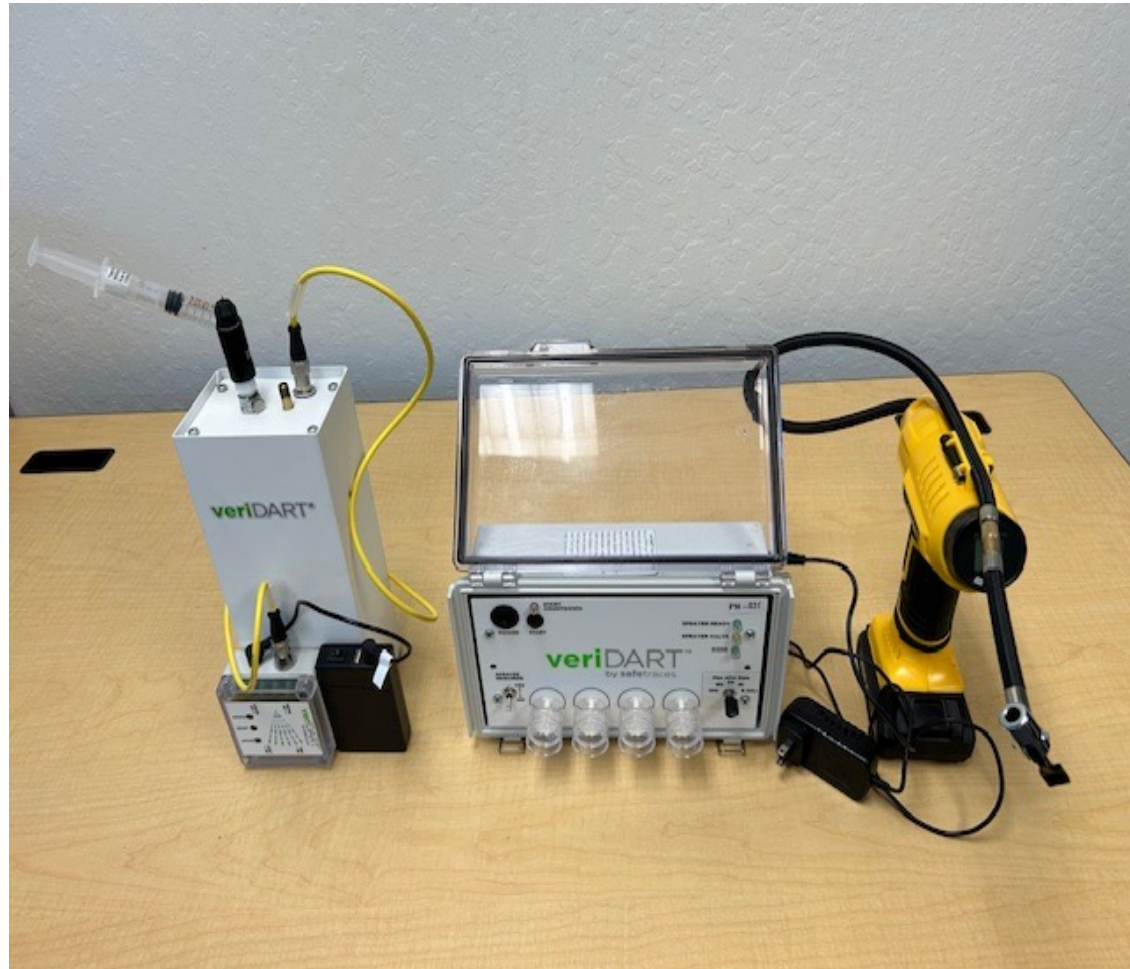
Sample Points

SP-001: Reception

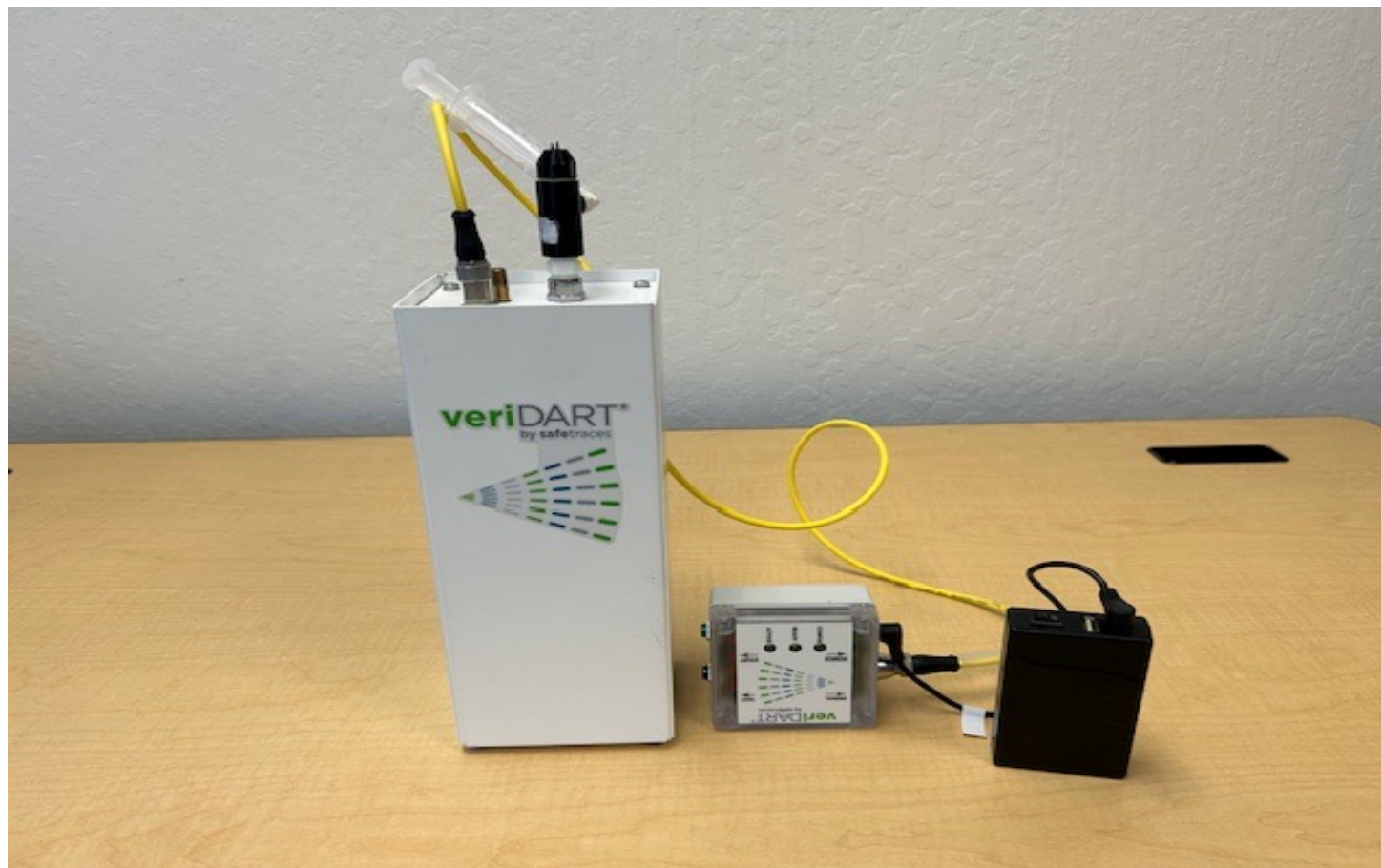


Equipment Used for Verification Test

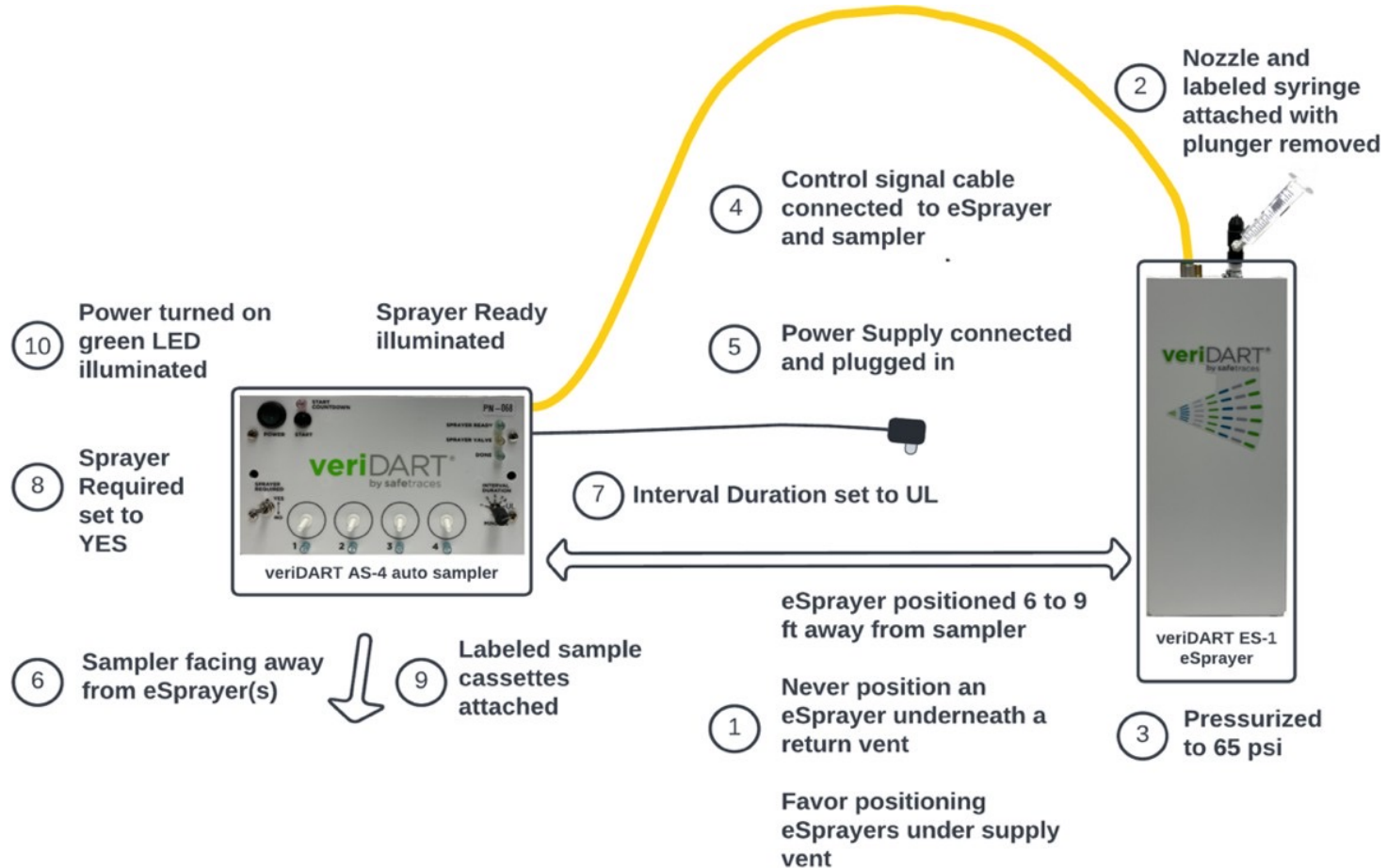
- eSprayer
- Yellow Cable Cord
- Wireless Module
- Lithium Battery
- Battery Cable
- Nozzle
- Syringe
- Power Cord
- Air Compressor
- 4-Channel Air Sampler



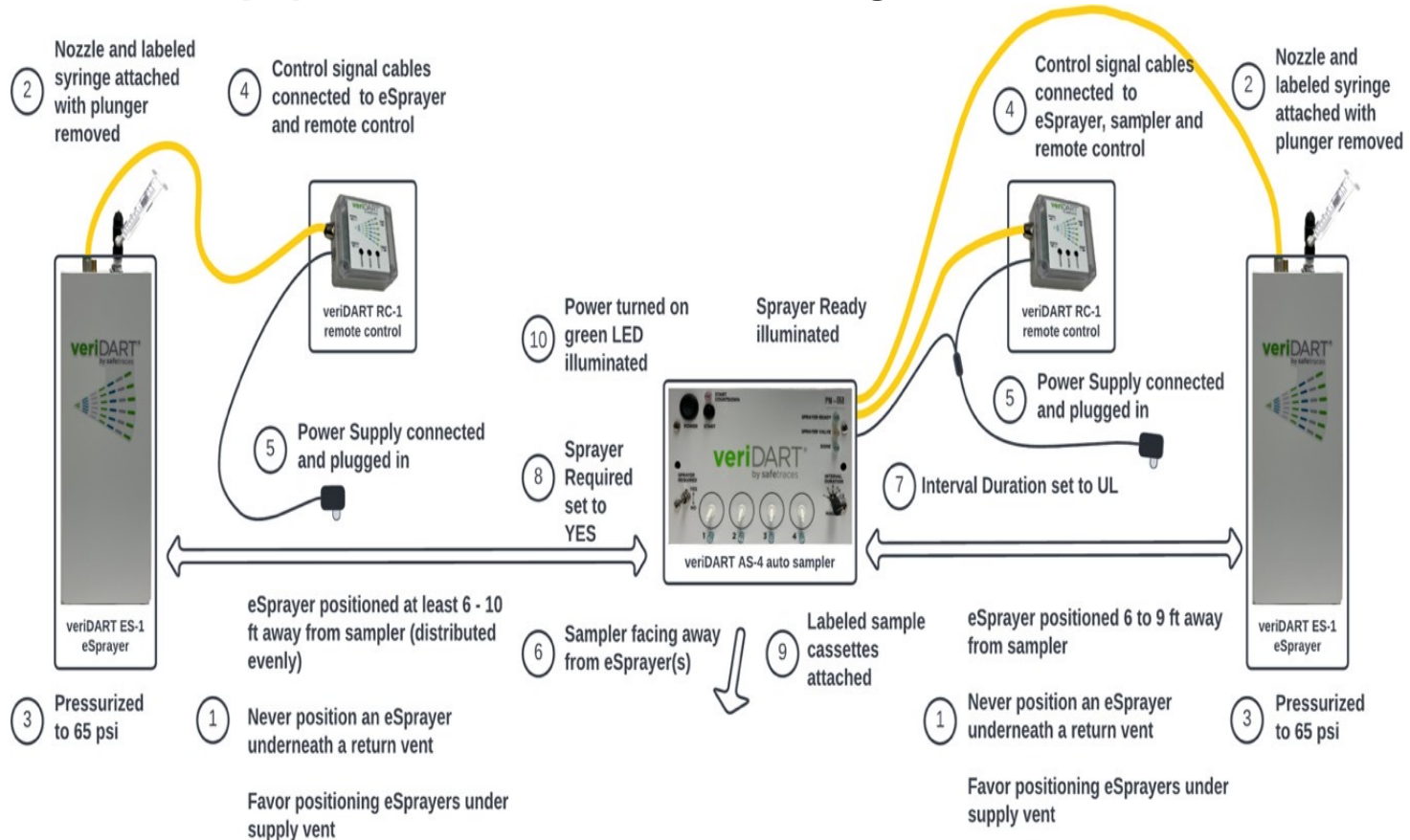
Alternative Equipment Set-Up for Tag Release of any Test



Equipment Connections for Small Verification Test



Equipment Connections for Large Verification Test



Best Practice: After set-up Run a mock test to ensure proper set-up and readiness.

- ❑ When using the Wireless Module ALWAYS start the test by pressing the “Start” button on the module, NOT on the Auto-Air Sampler.
- ❑ **Caution:** DO NOT USE TAGS FOR THE MOCK TEST!!

Example Verification Test Set-Up



Best Practices

- Get a cart to help carry the equipment
 - After measuring the “area” verify the amount of equipment needed to complete the testing (see slide 3)
 - If the ceiling height is greater than 12 ft add 1-OP for each additional 12 ft. For example, if the ceiling height is 24 ft add two addition OPs
 - Verify the 4-Channel air-sampler interval setting (ACH) selection is on 8 ACH
 - Verify the locations of HVAC supply and returns for equipment positioning
 - Do not pre-label the sample cassettes
 - Make sure the sample cassettes are snugly attached to the air sampler
 - Listen for the “click” sound of the “nozzle” when attaching to the eSprayer
-

Best Practices

- Wear gloves when handling Tags
 - Make sure the “plunger” is removed from the syringe
 - Remove pelican, unused equipment, supplies, etc. before starting the test
 - If you have to “redo” a test for any reason, use a different Tag
 - After the test verify the “Done” green light is visible
 - Verify the sample number label on each sample cassette are in the correct order before removing from the air sampler
 - Document all changes on the “Project Configuration” form
-

Verification Test Results Visualization

Test Location	Hourly Aerosol Removal Rate	eACH	Pass (>= 5 eACH)
Café/Break Room	99.95 %	7.26	Pass

RESULTS

- Hourly Aerosol Removal Rate: Pass is 99% or greater
- eACH: CDC guideline is 5 eACH each or greater

