Enclosure Test Form

Building: _____ **Contact:** _____ **Phone:** _____

Room name: _____

← Step	**Pretest Checklist** _√_ Complete prior to scheduling the test.
	Date of Pre-Inspection: _____ By: _____
1	Is there a **suspended ceiling**? ____ Bring a Flex Duct and second fan____ or plastic for covering the ceiling leaks _____ so that the BCLA (Lower leak) can be measured. Ceiling Area: _____. If the walls go slab-to-slab and have been very well sealed or the room is very large, the Flex Duct and/or plastic may not be needed. Are all suspended **ceiling tiles in place**? ____
2	**Dampers** installed on all external HVAC ducts __ Can they be shut for the Door Fan test? ____
3	**Dampers** installed on fresh air inlet ducts __ Can they be shut for the Door Fan test? ____
4	All apparent **leaks must be sealed** and hardware items installed? ____
5	**Doorway sizes**? Height ____, Width ____
6	5 minute **HVAC shut down** can be arranged? ____ With who: _____
7	**Maximum number of test fans** needed? ____
8	**Small room problem? ____**

Notes: (e.g. Non-standard equipment needed for test such as extra fans or tape and poly)

Deficiencies still to be fixed:

Doors, door hardware, door weather-stripping/sweeps/door bottoms, glass, dampers, floor/wall joint, room wall & floor penetrations, open conduit ends, floor drain traps primed, above ceiling leaks, roof/wall leaks, other:

Test Date: _____ 20___

Technician: _____ **Witnessing Authority:** _____

Step		
←	Test type and units **NFPA2001 metric** ____ **NFPA2001 Imperial** ____ **ISO14520 metric** ____ **ISO 14520 Imperial** ____	
9	**Elevation** (within 600 ft or 200 m):	_____ ft | m
10	Sketch plan view showing dimensions below and calculate floor area, heights and volume. Sketch side view of heights. Show doors open, closed and mark where Door Fan will be mounted.	
11	**Net protected volume**	= Floor Area _____ x Maximum protected height _____ = _____ ft^3 | m^3
12	**Operating temperature**	____ F | C
13	**Enclosure height**	= Above Ceiling (0 if not protected) ____ +Room _____ +Sub-floor ____ = _____ft |m
14	**Minimum agent Hold time** (e.g. 10 minutes)	____min
15	**Take a break.**	
16	**Agent**_____ Actual quantity determined from tags ____, weighing ____ or _____	lb | kg ft^3

17	**Set up room for Door Fan test**	
	a.Remove temporary airsealing or note who has assured the permanent seal b.Close all doors in the protected enclosure boundary c.Open all doors within the enclosure d.Open doors in adjacent rooms and around the outside of the enclosure e.Shut down the air-conditioning if possible. f.Close all dampers that would normally be closed during the Hold time	_____ ___ ___ ___ ON / OFF ___
18	**Set up Door Fan**, ensuring the door panel system is no tighter than the closed door.	___
19	**Leak check.** Blow air in to get +15 Pa room pressure & use smoke to locate leaks in:	Dampers ___, lower slab ___, sub-floor ___, stub-wall ___, walls ___ & ceiling ___.
20	**Total Enclosure Leakage**	Test ___, Enter untested values ___, Sub-floor only___.
21	**Operator**	In the room ___, Out of the room ___.
22	**Smoke** with Door Fan OFF.	moves out of the room __, moves into the room ___, doesn't move ___.
23	**Bias pressure** during Total Enclosure Leakage test. Measure across each perimeter door that showed smoke movement. Use the hand-held gauge. Record the maximum pressure:	____ Pa
24	**Temperature during test**	Inside ____ Outside ____ F | C
25	**Test**	Test both directions __, Depressurize __, Pressurize __.
26	**Flow Away** from operator	Range _____ Test # ___.
	Room pressure (Pa) Fan pressure (Pa) / Flow __	
27	**Flow Towards** operator	Range _____
	Room pressure Fan pressure / Flow _____	
28	**Mixing?**	a. No mixing (descending interface) ___, b. Mixing ___, c. Extended discharge ___
29	**Walk the perimeter** to ensure nothing has changed.	____
30	Set up HVAC, dampers and doorway openings to **Hold time conditions**.	Yes ___, No, can't be done ___ Same as for Total Enclosure Leakage test ___
31	**Smoke** with Door Fan OFF.	moves out of the room __, moves into the room __, doesn't move __.
32	Determine the **Bias pressure during Hold time** according to how the room would be set up during the agent retention period.	____ Pa
33	**a. Minimum protected height** from lower slab to protected equipment. OR	____ ft | m
	b. **Minimum concentration** to prevent re-ignition. 85% of Design % OR	____ %
	c. **Enter discharge rate** for extended discharge.	_____ lb/min| kg/min
34	If the room **PASSES**, test is COMPLETE. If room **FAILS**, go to Step 35	Pass | Fail

35	**Below Ceiling Leakage**	a.Flex Duct test __, b.Plastic-on-Ceiling test __, c.Estimated __, d.Leak audit __, e.Floor neutralization test __, f.Plastic on Floor __
36	**Smoke** with Door Fan OFF.	moves out of the room __, moves into the room __, doesn't move __.
37	**Bias pressure** during BCLA test. Measure across each perimeter door that showed smoke movement. Record the maximum pressure:	____ Pa
38	**Flow Away from operator**	Range _____ Test # ____.
	Room pressure Fan pressure / Flow _____	
39	**Flow Towards** operator	Range _____
	Room pressure Fan pressure / Flow _____	

40	**Field Calibration Check**	Not needed __ To be completed __	
41	**Flow Away** from operator Range ____	Room pressure Fan pres / Flow	
42	**Flow Towards** operator	Fan pres / Flow	
43	**Measured ELA**	_____ in^2 | ft^2 | cm^2 | m^2	
44	**Size of hole added**	_____ in^2 | ft^2 | cm^2 | m^2	
45	**Flow Away** from operator Range ____	Fan pres / Flow	
46	**Flow Towards** operator	Fan pres / Flow	
47	**Measured ELA**	_____ in^2 | ft^2 | cm^2 | m	
48	**Calculated variance**	_____%	

49	**Venting test**	Not needed ___ To be completed ___ Enclosure strength _____ Pa | lb/sq-ft						
50	**Vent installed?**	Yes ____ No ____ (if no, go to step 56)						
	Vent opens under: Positive pressure ___, Negative pressure ___, Both ____.							
51	Single direction vent___ or dual direction vent ___ (if single direction vent, skip either step 54 or 55)							
52	Pressurize until vent is fully open or 125Pa (whichever is less) or skip if vent opens under negative only ____.	Vent opened at ____ Pa, Didn't open___, Partially open___						
53	Lock the vent in place (either fully open or whatever position it was in at 125 Pa)							
54	Pressurize direction – Fan range ____	Room pressure Fan pressure/Flow___						
	Depressurize until vent is fully open or 125Pa (whichever is less) or skip if vent opens under positive only ___ .							
55	Depressurize direction – Fan range ____	Room pressure Fan pressure/Flow___						
56	System discharge time ____sec	Relative humidity range ____ to ____%						

Notes