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Is it Safe to do a Blower Door Test during the COVID-10 Pandemic?

This is primarily a healthcare question, which we are not qualified to answer, so you should also seek input from health care officials. The following information is provided as general comments, not as guidance. It may also help health care officials understand what a Blower Door does since it is probably unfamiliar to most of them.

What does a Blower Door do? In testing a building's air tightness, a blower door causes air to pass through the leaks that occur in a building, sometimes in directions that they do not normally flow. In any pressurization or depressurization test, outdoor air is flowing into the building (or the space being tested, if it's not the whole building) and indoor air is flowing out of the building (or the space being tested). This could cause the flow of air containing the virus between infected and uninfected persons and could stir up particles that contain the virus.

The following table provides some thoughts on the relative risks associated with a blower door test, based on our understanding.

Scenario	Description	Risk to Tester	Risk to Occupants
1	Building that is not (yet) occupied	Risk is minimal	Risk is minimal
2	Occupied single family dwelling that does not share any walls with adjacent dwellings **See Guideline on Page 2**	Risk is lower (See note 1)	Risk is lower (See note 1)
3	Occupied multi-family dwelling or a dwelling that shares walls with other dwellings	**Risk is higher** (See Note 2)	**Risk is med to high** (See Note 2)
4	Buildings occupied by people known to be infected, or suspected of being infected with COVID-19	**Risk is highest** (See Note 3)	**Risk is highest** (See Note 3)

Note 1
The CDC guidelines for cleaning a building after someone who is COVID-19 positive has left the building include the following: "Open outside doors and windows to increase air circulation in the area." This implies ventilating potentially contaminated air to outside and bringing outdoor air inside are safe practices during the pandemic.
https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html

Note 2
The blower door test will likely cause air to flow between dwellings potentially spreading infectious air. Testing should likely be avoided.

Note 3
Testing should not occur until the occupants meet CDC recommendations for "all-clear".

Are there Best Practices to Run a Blower Door Test during the COVID-10 Pandemic?

Guideline to minimize the risk of testing an occupied single-family dwelling, with no shared walls during the COVID-19 Pandemic (Scenario #2 above).

The Energy Conservatory has been asked to respond to the question "What is the safest method for doing a blower door test during the COVID-19 Pandemic?" The short answer is "It depends on many factors that will be different for each test." Everyone who performs a blower door test during the pandemic should follow CDC and local health care officials guidelines. As a part of this, we encourage testers to think carefully about their unique situation and consider where the air is coming from and where it is going during the blower door test. We have some suggestions which we believe will lower the risk for this type of test in many circumstances.

We suggest: Follow CDC guidelines - Wear PPE, follow social distancing guidelines. Run a pressurized test from outside the building, (but still ensure house is properly set-up for the test). During the test, move away from the fan intake.

Here are the details behind our suggestions:

1. Always wear appropriate personal protective equipment and follow social distancing guidelines, per CDC, your local health officials, and your employer.
    a. Link: https://www.cdc.gov/coronavirus/2019-nCoV/index.html

2. In general, during the test it is better to be outside the home than inside
    a. This is best achieved performing a Pressurizing Blower Door test
    b. Pressurization is preferred over de-pressurization to minimize opportunity for backdraft or other concerns which you may not be able to address or would require an additional trip inside the home during set-up of the home and then returning after the test to turn appliances back on.
    c. If the home is pressurized, you may not need to turn off any combustion appliances prior to the test, since you will be pressurizing and not risking backdraft
        i. This may also give you the option to set-up the home more quickly yourself (limiting your time in the home) or even having the homeowner assist in setting up the home by closing windows and opening interior doors.
        ii. NOTE: Pressurization tests often result in a higher leakage rate than depressurization tests because pressurization will open backdraft dampers, and depressurization will close them. You may need to adjust your test procedures accordingly if comparing air tightness before and after air sealing work is done.
    d. To limit potential exposure of occupants to the person performing the test, move away from the fan intake during the test.

3. Equipment surfaces should be cleaned per CDC disinfecting guidelines prior to being packed up.
    a. https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html