



**Building
Performance
Institute Inc.**



**Interpretations to ANSI/BPI-1200-S 2015 and 2017
Standard Practice for Basic Analysis of Buildings
Approved by the BPI Single Family Standards Technical Committee
(in order of section number)**

**Interpretation to Section 7.9
Approved on December 17, 2015**

Question: Regarding ANSI/BPI-1200-S-2015, Section 7.9 [below]: Should testing CO in gas ovens, direct-vent and vent-free combustion equipment be conducted with the house under a depressurized condition, or should it be conducted with the house in no particular configuration?

ANSI/BPI-1200-S-2105

Section 7.9 Combustion appliance safety inspection

After gas or oil piping inspection and a visual inspection of the combustion appliance/s have been completed and no unsafe conditions related to these inspections have been observed, a combustion appliance safety inspection shall be completed to determine if fossil fuel-fired appliances are operating safely under a depressurized condition. The auditor shall use the following procedures to conduct CO measurement and spillage assessment on natural draft appliances equipped with a barometric draft control or Category I appliances equipped with a draft hood or connected to a natural draft venting system. **The evaluation shall also include CO measurement on gas ovens, direct-vent and vent-free combustion equipment. Ambient CO shall be monitored at all times during the test and actions taken as per Section 7.3.3.3 of this document.**

Interpretation: CO measurement on gas ovens, direct-vent and vent-free combustion equipment can be conducted with the house in no particular configuration. Testing these types of appliances under a depressurized condition is not necessary.

**Interpretation to Section 7.9.1.4
Approved on July 26, 2018**

ANSI/BPI 1200-S-2017:

7.9.1.4 Turn off any mechanical ventilation and forced air cooling or heating system blowers.

Standards - Certifications – Rating System – BPI GoldStar Contractors

Saratoga Technology + Energy Park | 107 Hermes Road Suite 210 | Malta, NY 12020
Phone: (518) 899-2727 or (877) 274-1274 | Fax: (518) 899-1622 or (866) 777-1274
info@bpi.org | Twitter: _BPI_ | Facebook: BuildingPerformanceInstitute

Question: In BPI-1200, §7.9.1.4, what does the term “mechanical ventilation” refer to? Is it “whole dwelling ventilation” prescribed by ASHRAE 62.2? Whole dwelling ventilation fans are different from local/spot ventilation fans (e.g., kitchen and bathroom exhaust fans), which operate only part of the time.

Interpretation: For the purposes of this standard, the term “mechanical ventilation” includes whole building ventilation as well as spot ventilation.

Question: In BPI-1200, §7.9.1.4, what does the term “mechanical ventilation” refer to? Is it “whole dwelling ventilation” prescribed by ASHRAE 62.2? Whole dwelling ventilation fans are different from local/spot ventilation fans (e.g., kitchen and bathroom exhaust fans), which operate only part of the time.

Interpretation: For the purposes of this standard, the term “mechanical ventilation” includes whole building ventilation as well as spot ventilation.

Interpretation to Section 7.9.1.6 **Approved on June 30, 2016**

ANSI/BPI-1200-S-2015:

7.9.1.6 Turn on the following exhaust equipment: clothes dryers (check and clean the dryer filter and look for blockage at the external vent damper prior to operation), range hoods, and other exhaust fans. If there are speed controls, operate the exhaust equipment at the highest speed setting. Do not operate a whole house cooling exhaust fan.

Question: When an ERV/HRV is present, are these units left on or off?

Interpretation: ERVs/HRVs are included among “other exhaust fans” that are required under Section 7.9.1.6 to be turned on during the set up for the combustion appliance safety inspection.

Rationale: Although ERVs/HRVs are often considered to be balanced, this is commonly not the case. Their manufacture, configuration, installation, or other circumstances (intake duct disconnected, clogged, crimped, etc.) could cause the ERV/HRV to create a more negative pressure in the CAZ, hence their impact shall be considered under 7.9.1.6.

Interpretation to Section 7.9.1.8 **Approved on December 23, 2015**

ANSI/BPI 1200-S-2015:

7.9.1.8 Turn on any central forced air system blowers and measure and record the pressure in the CAZ WRT outside.

7.9.1.8.1 If the pressure in the CAZ becomes more negative WRT outside after the blower is turned on, the blower shall remain on during combustion appliance safety inspection.

7.9.1.8.2 If the pressure in the CAZ becomes more positive WRT outside after the blower is turned on, the central forced air system blowers shall be turned off during the combustion appliance safety inspection.

Question: Can BPI issue an interpretation on section 7.9.1.8 to mention that the blower is only run if the thermostat has a fan switch? Older systems without AC do not have that and the furnace would have to run to get the air handler to kick in. This would muddle, if not invalidate the whole test.

Interpretation: ANSI/BPI-1200-S-2015, Section 7.9.1.8 is part of the set up to achieve the greatest possible depressurization given the weather/temperature conditions at the time of the inspection.

Section 7.9.1.8 specifies the following step:

Turn on any central forced air system blowers and measure and record the pressure in the CAZ WRT outside.

This requirement pertains only to systems equipped with a means to operate the blower independently and shall be interpreted as follows:

7.9.1.8 Turn on any central forced air system blowers **on systems equipped with a means to operate the blower independently** and measure and record the pressure in the CAZ WRT outside.

If the system is not equipped with a thermostat wired with a fan-on switch or other means to operate the blower independently, then the blower shall not be considered while setting up the house for the greatest possible depressurization.

Interpretation to Section 7.9.1.8 **Approved on June 30, 2016**

ANSI/BPI 1200-S-2015:

7.9.1.8 Turn on any central forced air system blowers and measure and record the pressure in the CAZ WRT outside.

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7.9.1.8.1 If the pressure in the CAZ becomes more negative WRT outside after the blower is turned on, the blower shall remain on during combustion appliance safety inspection.

7.9.1.8.2 If the pressure in the CAZ becomes more positive WRT outside after the blower is turned on, the central forced air system blowers shall be turned off during the combustion appliance safety inspection.

Question: For multiple air handlers, if the 1st forced air unit makes the CAZ more negative, should this unit be left on when turning on the 2nd forced air unit?

Interpretation: While the standard does not provide specific direction as to whether all air handler/blowers should be turned on simultaneously, best practice is to check the impact on the CAZ pressure when each air handler/blower is turned on individually AND to then check the impact on the CAZ pressure when all air handler/blowers are turned on simultaneously. Place the units in whichever condition creates the most negative pressure in the CAZ WRT outside and proceed with the rest of the CAZ testing procedure.

Interpretation to Section 7.9.1.9 Approved on August 24, 2016

ANSI/BPI 1200-S-2015:

7.9.1.9 Open interior door/s directly leading to the CAZ.
Measure and record the pressure in the CAZ WRT outside.

Question: When creating the worst case where the CAZ is in a garage with a slab foundation...

We interpret the Standard to read never to test the impact of an air handler with the mandoor open to the garage if the pressure becomes more positive (or neutral) when turned on even if the pressure in the main body of the house has become more negative. Is this correct?

Interpretation: The test protocol, as listed in the standard, is the base level procedure to determine a likely issue while still keeping the process simple and repeatable. For the purposes of the standard test procedure, the garage “man door” (the door separately the garage from the conditioned living space) should be considered an exterior door. However, a user of this standard is always able to go more in-depth based on particular house configurations and concerns. If there is a concern about the door’s position negatively affecting the CAZ depressurization, the auditor has the option to use the procedure listed in Section 7.9.1.9.1, Footnote 3* to determine the more accurate door position, but would not be required to as part of the standard protocol.

**Footnote 3: Alternatively, pressure differential diagnostics may be used to determine proper door configuration to create the greatest CAZ depressurization. Pressure differential diagnostics may include manometer readings or a visual indicator, such as smoke.*

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