

IBA HEC Daily Safety Test Out / Worst Case Draft Testing Form for Auditors (2011)

Client Name: _____ Client/Job Application ID: _____
 Client Address: _____ County: _____

Initial Auditor: _____ **Interim Auditor:** _____ **Final Auditor:** _____
 Initial Audit Date: _____ Interim Audit Date: _____ Final Audit Date: _____

Worst Case Draft Testing

	Initial	Interim	Final
Turn all combustion appliances off or to pilot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Remove forced air furnace filter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Close all exterior doors and windows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open all supply registers (except supplies in CAZ)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interior door positions. Fan off-close doors except with exhaust fans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fan on-Smoke doors to rooms with exhaust fans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Close all fireplace and wood stove dampers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turn on dryer, clean or remove lint trap. Use no heat setting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turn on all exhaust fans except whole house exhaust	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Set-up blower door if there is a working fireplace, (exhaust 300 cfm for each)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Set-up pressure to read CAZ pressure with reference to outside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Is there a door between the CAZ and the rest of the house?</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<i>Is there a forced air blower on the heating equipment?</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Determine Worst Case Configuration

	Initial		Interim		Final	
	CAZ Door Open	CAZ Door Closed	CAZ Door Open	CAZ Door Closed	CAZ Door Open	CAZ Door Closed
Fan off	_____	_____	_____	_____	_____	_____
Fan on	_____	_____	_____	_____	_____	_____
Outdoor temp.	_____		_____		_____	

Record final temp. on Blower Door Form also

Draft Test Water Heater (5-2-5 Test)

	Initial	Interim	Final
Fire the water heater	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Establishes flow in the vent within 5 seconds?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Spillage disappears within 2 minutes?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Record WH draft pressure after 5 minutes <small>(See page 2 for allowable minimum draft pressures)</small>	_____ Pa _____ "w.c"	_____ Pa _____ "wc"	_____ Pa _____ "wc"
Record CO in flue gas after 5 minutes <small>(Must be lower than 100 ppm)</small>	_____ / _____ ppm	_____ / _____ ppm	_____ / _____ ppm

If appliance does not establish flow in the vent almost immediately, abort test and follow the "Response to Failure" Indiana Wx Field Guide 3-39

Draft Test Furnace (5-2-5 Test)

	Initial	Interim	Final
Fire the furnace	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Establishes flow in the vent within 5 seconds?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Is there flame interference when the blower starts?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Spillage disappears within 2 minutes?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Record furnace draft pressure after 5 minutes	_____ Pa _____ "w.c"	_____ Pa _____ "wc"	_____ Pa _____ "wc"
Record CO in furnace flue gas after 5 minutes	_____ / _____ ppm	_____ / _____ ppm	_____ / _____ ppm
CO in each cell on draft hood furnace	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Re-test draft on water heater	_____ Pa _____ "w.c"	_____ Pa _____ "wc"	_____ Pa _____ "wc"
Did the heating appliance operation cause spillage or a reduction in draft on water heater?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

Record final furnace draft (Pa) on Blower Door Form
 Record final water heater re-test draft (Pa) on Blower Door Form

Daily Safety Test Out / Worst Case Draft Testing Form (continued)

Specifications:

- A) Flow of flue products must be established to the exterior of the structure in the vent almost immediately
- B) There should be no spillage after 2 minutes of operation
- C) Operation of the furnace should not cause spillage or a reduction in draft pressure in any other appliance it shares combustion air with.
- D) Adequate draft pressure after 5 minutes is:

Minimum Draft Pressure Requirements

<u>Outdoor Temperature</u>	<u>Inches of water column</u>	<u>Pascals</u>
Greater than 80 degrees F.	Negative 0.005" w.c.	Negative 1 Pa
Between 60 and 80 degrees F.	Negative 0.008" w.c.	Negative 2 Pa
Between 40 and 60 degrees F.	Negative 0.012" w.c.	Negative 3 Pa
Between 20 and 40 degrees F.	Negative 0.016" w.c.	Negative 4 Pa
Less than 20 degrees F.	Negative 0.02" w.c.	Negative 5 Pa

(If draft fails follow "Response to Failure" Indiana Wx Field Guide 3-39)