



Gas Appliance Inspection Form

Revised Nov 12th, 2010

Audit Date: _____

Job/Client Information

Client name: _____ Client/Job number: _____
 Phone: _____ Home: _____
 Address: _____ Work: _____
 Cell: _____
 Client Interview: _____

Initial Health and Safety Inspection

Ambient CO Level: _____ ppm Gas odor: Y N Fire hazards: Y N
 Mold or moisture issues: Y N H&S issues must be addressed before work is started

Equipment Information

Fuel type: Natural Propane Forced air: Y N Btuh Input: _____
 Furnace type: Draft hood 80% 90% Mobile home Other: _____
 Application: Up flow Down flow Horizontal Lowboy Package
 Make: _____ Model: _____ Serial: _____
 Furnace Location (CAZ): _____ Water heater: Gas Electric
 WH Location (CAZ): _____ Btuh input: _____

This Form and associated tasks must be completed by qualified auditors or heating technicians
Interim column is only completed to verify repairs or requested changes
Interim column must be completed by a qualified technician or auditor
Repairs or furnace replacement must be inspected and signed off before air sealing and insulating
Health and safety repairs needed may be listed on page 7 of form

Is this the final inspection of a job with a new furnace installed? Y N
 If yes, only the CAZ Depressurization, Combustion Safety and Temp Rise sections need to be completed
 Other appropriate information will be entered on the New Furnace Installation Inspection form

Gas Piping

	Auditor		Tech		Interim	Final
	Y	N	Y	N	Y	Y
Has entire gas system been leak checked and free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does gas system have proper materials and configuration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Electrical Safety

	Auditor		Tech		Interim	Final
	Y	N	Y	N	Y	Y
Is the polarity correct?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the furnace properly grounded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a switch or method of disconnect near unit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Blower, Burners, Coil and Heat Exchanger

	Auditor		Tech		Interim	Final
	Y	N	Y	N	Y	Y
Are there any cracks or holes in the heat exchanger?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Burners and heat exchanger clean and free of corrosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condensing secondary heat exchanger clean? N/A <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blower assembly and motor clean and serviced?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the A/C coil clean? N/A <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the A/C coil drain system in good working condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If a crack or hole is found, the heat exchanger or furnace must be replaced!

Vent System

Describe what will be the final vent system(s): (e.g. height, connector rises, lateral lengths, diameters - elbows, materials) Furnace: _____
 Water heater: _____
 Common vent: _____
 Other: _____

Chimneys

	Auditor		Tech		Interim	Final
	Y	N	Y	N	Y	Y
Has the masonry chimney been re-lined? N/A <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Must be lined if: On an outside wall, clay liner cracked, misaligned or missing, interior area exceeds 7 times rule, 80% furnace vented by itself)						
Is the top wash sealed and proper cap in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are chimney penetrations sealed correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Type B-Vent Systems

Is the vent system of proper materials and configuration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the vent system clear of blockage? (open and inspect)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the vent system been inspected in the attic also?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Condensing Furnace Vent Systems

Are vent and combustion air pipes both piped to outside?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the vent system of proper materials and configuration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ventilation and Combustion Air

Pre weatherization equipment inputs and available combustion air:

Total Btuh of natural draft equipment in CAZ: _____ Btuh Divided by 20 _____ cu.ft.
 Total Btuh of draft induced equipment in CAZ: _____ Btuh Divided by 26 _____ cu.ft.
 Add the cu.ft. of these two lines together. This is the minimum volume needed: _____ cu.ft.
 Calculate volume (L x W x H) that communicates with the CAZ. Available volume _____ cu.ft.

Projected combustion air requirements after modifications are made or equipment is replaced

Total Btuh of natural draft equipment in CAZ: _____ Btuh Divided by 20 _____ cu.ft.
 Total Btuh of draft induced equipment in CAZ: _____ Btuh Divided by 26 _____ cu.ft.
 Add the cu.ft. of these two lines together. This is the minimum volume needed: _____ cu.ft.
 Calculate volume (L x W x H) that communicates with the CAZ. Available volume _____ cu.ft.

Furnace Filter

	Auditor		Tech		Interim	Final
	Y	N	Y	N	Y	Y
Is the furnace filter clean and properly supported?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the filter slot or door in place and sealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the client educated on care and maintenance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Filter size: _____ X _____ X _____

Duct System

	Auditor		Tech		Interim	Final
Have all open returns or disconnects been repaired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have ducts in unconditioned spaces been sealed/insulated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has return duct been sealed on remote filter? N/A <input type="checkbox"/>						
Duct sealing done by others: <input type="checkbox"/>						

Thermostat

	Auditor		Tech		Interim	Final
Is the thermostat location functional?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the stat level and hole sealed behind the sub base?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the heat anticipator or cycle rate set properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Record heat anticipator setting: N/A <input type="checkbox"/>	_____ A	_____ A	_____ A	_____ A	_____ A	_____ A

Water Heater

	Auditor		Tech		Interim	Final
Is the water heater level and free of leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the T & P relief valve installed and piped properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Measure the water temperature at nearest faucet. Set no higher than 120 degrees

Audit	Technician or Interim inspection	Final
_____ deg. Adjusted? <input type="checkbox"/> Y <input type="checkbox"/> N	_____ deg. Adjusted? <input type="checkbox"/> Y <input type="checkbox"/> N	_____ deg.

Furnace Operational Testing

	Auditor	Tech	Interim	Final
Supply air temperature	_____ ° F.	_____ ° F.	_____ ° F.	_____ ° F.
Return air temperature	_____ ° F.	_____ ° F.	_____ ° F.	_____ ° F.
Temperature rise	_____ ° F.	_____ ° F.	_____ ° F.	_____ ° F.
Temperature rise: _____ Min. _____ Max.	Y N	Y N	Y	Y
Is the temp. rise within manufacturer specs.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is pilot safety system operational? N/A <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the limit switch function properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Record the plenum temperature when tripped:	_____ ° F.	_____ ° F.	_____ ° F.	_____ ° F.
Record and adjust fan off temperature	_____ ° F.	_____ ° F.	_____ ° F.	_____ ° F.

Optional: Check firing rate of appliance - required if high CO or unusual temperature rise exists

* clock meter for natural gas * check manifold pressure for propane

* 1/4 ft. dial - time 4 revs/do not divide - use 1 ft column

* 2 ft. dial - time 1 turn - use 2 ft. column

Dial timed: 1/4 cu.ft. 1/2 cu.ft. 1 ft. 2 ft.

Appliance being tested: _____

	Auditor	Tech	Interim	Final
Seconds to turn 4 revolutions	_____ sec.	_____ sec.	_____ sec.	_____ sec.
Total seconds divided by 4	_____ sec.	_____ sec.	_____ sec.	_____ sec.
Cubic feet/hr from clocking table	_____ cu.ft.	_____ cu.ft.	_____ cu.ft.	_____ cu.ft.
Btu content per cu.ft. of gas (from gas supplier)	_____ Btu/cubic foot			
Clocked input - Btuh - (Cu. ft./hr X Btu/cu. ft.)	_____			
Input must be within 5 % of rated input without going over				
Furnace gas manifold pressure	_____ "w.c.	_____ "w.c.	_____ "w.c.	_____ "w.c.
Manufacturers listed manifold pressure	_____ "w.c.			

Additional Appliance or CAZ

Ventilation and Combustion Air - CAZ 2

Combustion air calculations included with other appliances

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Projected combustion air requirements after modifications are made or equipment is replaced

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Calculate volume (L x W x H) that communicates with the CAZ. Available volume _____ cu.ft.

Indiana Weatherization Gas Appliance Inspection Form

Mechanical Work Needed

		Completed	
1	_____	Y	N
2	_____	Y	N
3	_____	Y	N
4	_____	Y	N
5	_____	Y	N
6	_____	Y	N
7	_____	Y	N
8	_____	Y	N
9	_____	Y	N
10	_____	Y	N

Additional Comments: _____

Initial audit performed by: _____ **Date:** _____
Mechanical work performed by: _____ **Date:** _____
Mechanical inspection performed by: _____ **Date:** _____
Final inspection performed by: _____ **Date:** _____

Agency reviewer: _____ **Date:** _____

Indiana Weatherization Gas Appliance Inspection Form

NCAA Pg. 1

Gas Meter Dial Used					
Seconds for one revolution	One Half cu. Ft.	One cu. Ft.	Two cu. Ft.	Five cu. Ft.	Ten cu. Ft.
Cubic Feet Per Hour					
10	180	360	720	1800	3600
11	164	327	655	1634	3272
12	150	300	600	1500	3000
13	138	277	555	1385	2770
14	129	257	514	1286	2572
15	120	240	480	1200	2400
16	112	225	450	1125	2250
17	106	212	424	1059	2118
18	100	200	400	1000	2000
19	95	189	379	947	1894
20	90	180	360	900	1800
21	86	171	343	857	1714
22	82	164	327	818	1636
23	78	157	313	783	1566
24	75	150	300	750	1500
25	72	144	288	720	1440
26	69	138	277	692	1384
27	67	133	267	667	1334
28	64	129	257	643	1286
29	62	124	248	621	1242

NCAA Pg. 3

Gas Meter Dial Used					
Seconds for one revolution	One Half cu. Ft.	One cu. Ft.	Two cu. Ft.	Five cu. Ft.	Ten cu. Ft.
Cubic Feet Per Hour					
50	36	72	144	360	720
51	35	71	141	353	706
52	35	69	138	346	692
53	34	68	136	340	680
54	33	67	133	333	666
55	33	65	131	327	654
56	32	64	128	321	642
57	32	63	126	316	632
58	31	62	124	310	620
59	30	61	122	305	610
60	30	60	120	300	600
62	29	58	116	290	580
64	29	56	112	281	562
66	29	54	109	273	546
68	28	53	106	265	530
70	26	51	103	257	514
72	25	50	100	250	500
74	24	48	97	243	486
76	24	47	95	237	474
78	23	46	92	231	462

NCAA Pg. 2

Gas Meter Dial Used					
Seconds for one revolution	One Half cu. Ft.	One cu. Ft.	Two cu. Ft.	Five cu. Ft.	Ten cu. Ft.
Cubic Feet Per Hour					
30	60	120	240	600	1200
31	58	116	232	581	1162
32	56	113	225	563	1126
33	55	109	218	545	1090
34	53	106	212	529	1058
35	51	103	206	514	1028
36	50	100	200	500	1000
37	49	97	195	486	972
38	47	95	189	474	948
39	46	92	185	462	924
40	45	90	180	450	900
41	44	88	176	440	880
42	43	86	172	430	860
43	42	84	167	420	840
44	41	82	164	410	820
45	40	80	160	400	800
46	39	78	157	391	782
47	38	77	153	383	766
48	37	75	150	375	750
49	37	73	147	367	734

NCAA Pg. 4

Gas Meter Dial Used					
Seconds for one revolution	One Half cu. Ft.	One cu. Ft.	Two cu. Ft.	Five cu. Ft.	Ten cu. Ft.
Cubic Feet Per Hour					
80	22	45	90	225	450
82	22	44	88	220	440
84	21	43	86	214	428
86	21	42	84	208	418
88	20	41	82	205	410
90	20	40	80	200	400
94	19	38	76	192	384
98	18	37	74	184	368
100	18	36	72	180	360
104	17	35	69	173	346
108	17	33	67	167	334
112	16	32	64	161	322
116	15	31	62	155	310
120	15	30	60	150	300
130	14	28	56	138	276
140	13	26	51	129	258
150	12	24	48	120	240
160	11	22	45	113	226
170	11	21	42	106	212
180	10	20	40	100	200

Minimum Draft Pressure Requirements

Outdoor Temperature	Inches of water column	Pascals
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