

**State of North Dakota  
Weatherization Assistance Program**

**Heating System Clean, Tune, and Inspection Form**

Job#

Name: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Fuel Type:	Heating System Type:	Input: Output:	Owner/Renter Date:
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	<u>Pre-test</u>	<u>Post-test</u>		<u>Pre-test</u>	<u>Post-test</u>
Gas leaks:	Y / N	Y / N	Open air returns	Y / N	Y / N
Venting problems	Y / N	Y / N	Missing main shutoff	Y / N	Y / N
Carbon indicators	Y / N	Y / N	Asbestos	Y / N	Y / N
Ductwork holes	Y / N	Y / N	Heat exchanger check	Y / N	Y / N

Anticipator:	Measured: _____	Set at: _____	Reset: _____
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Cycling on high limit	Y / N	Y / N	Oil system smoke test		
Fan on/off temp	____ / ____	____ / ____	Draft, breech	_____	_____
Spillage/backdraft	Y / N	Y / N	Draft, overfire	_____	_____

Heatrise s-s pre	_____ - _____	= _____	Heatrise s-s post	_____ - _____	= _____
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Carbon monoxide	_____ ppm	_____ ppm	High limit temp	_____	_____
Check filter	Y / N	Y / N	Clean heat exchanger	Y / N	Y / N
Cleaned blower	Y / N	Y / N	Check belt	Y / N	Y / N
Blower amp. draw	Y/N _____	Y/N _____	A-coil dirty	Y / N	Y / N

Net stack temp	_____	_____	O <sub>2</sub> % or CO <sub>2</sub> %	_____	_____
Efficiency %	_____	_____			

Check duct integrity	_____	_____	Run final furnace cycle		Y / N
H <sub>2</sub> O heater CO	_____ ppm	_____ ppm	Draft H <sub>2</sub> O heater	_____	_____

**At the time of this inspection, this heating system was operating properly.**

**Comments/Warning** \_\_\_\_\_

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\_\_\_\_\_

**Technician Signature** \_\_\_\_\_

**I understand the above problems:** \_\_\_\_\_ **Date:** \_\_\_\_\_

<b>Acceptable Combustion Test Analysis Values</b>			
<i>Heating Unit Type</i>	<i>Oxygen (O2)</i>	<i>Net Stack Temp.</i>	<i>Smoke Test</i>
<b>Gas</b>			
Atmospheric	4-9 percent	300-600°F	NA
Fan-assisted	4-9 percent	300-480 °F	NA
Condensing	See man. Info.	See man. Info.	NA
Standard Power Burner	4-9 percent	300-650 °F	NA
<b>Oil (No. 1 &amp; 2)</b>			
Oil gun burner	4-9 percent	325-600 °F	1 or less
Flame Retention burner	4-7 percent	325-600 °F	1 or less

<b>Atmospheric Gas Appliances Only</b>					
<b>Acceptable Draft Test Readings for Various Outdoor Temperature Ranges</b>					
<b>F°</b>	<20	21-40	41-60	61-80	>80
<b>Pascals</b>	-5	-4	-3	-2	-1
<b>Water Column inches</b>	-.02	-.016	-.012	-.008	-.004

<b>Power Oil Burners</b>	
<b>Acceptable Draft Readings Overfire and at Breech</b>	
<b>Draft Reading Location</b>	<b>Acceptable Draft</b>
Overfire Draft	-0.02 inches or -5 Pascals
Vent Connector or Breech	-0.04 to -0.06 or -10 to -15 Pascals

---- For Use with Carbon Monoxide Testing ----

<b>Carbon Monoxide (CO) Action Levels and Allowable Levels</b>			
<i>Appliance</i>	<i>Action CO Level</i>	<i>Allowable CO Level</i>	<i>Comments</i>
Gas Furnace / Boiler	100 ppm / 200 ppm	200 ppm / 400 ppm	as-measured / air-free
Gas Water Heater	100 ppm / 200 ppm	200 ppm / 400 ppm	as-measured / air-free
Range Bake Burner	800 ppm	800 ppm	air-free
Oil Furnace / Boiler	100 ppm	200 ppm	as-measured
Oil Water Heater	100 ppm	200 ppm	as-measured

“Action CO Level” indicates level above which repair or adjustment to appliance is recommended to lower CO emissions.  
“Allowable CO Level” indicates maximum CO emission levels allowed by the North Dakota Weatherization Program.

---- For Use with Depressurization Tightness Limit Procedure ----

<b>Building Depressurization Limits for Various Appliance Types (Used to calculate the Depressurization Tightness Limit)</b>	
<i>Appliance Type</i>	<i>Building Depressurization Limit, Pascals</i>
Water heater only, atmospheric gas	-2
Water heater and atmospheric furnace	-5
Furnace or boiler, gas atmospheric or fan assist., Category I	-5
Oil or gas unit with power burner	-5
Induced draft appliance (fan at point of exit at wall)	-5
Direct-vent appliances	-10