Indiana WX Gas Boiler Inspection Guide

Client: _____ Job #: _____

Address: _____ Phone: _____

Client Interview: _____

_____

_____

_____

Comments / Billing Information: □ Standard Inspection / Clean and Tune

_____

_____

_____

_____

_____

_____

Follow-Up: □ Emergency / Boiler Replacement

_____

_____

_____

_____

_____

_____

Fuel Type: □ Natural Gas □ L.P. Gas **Boiler Type:** □ Gravity or □ Pump

Water Heater: □ Boiler □ Gas □ Electric **Boiler Type:** □ Draft Hood Equipped □ High Efficiency

Number of Zones and Location of Thermostats: _____

_____

BTUH Input Ratings: Boiler: _____ W.H.: _____ Other (describe): _____

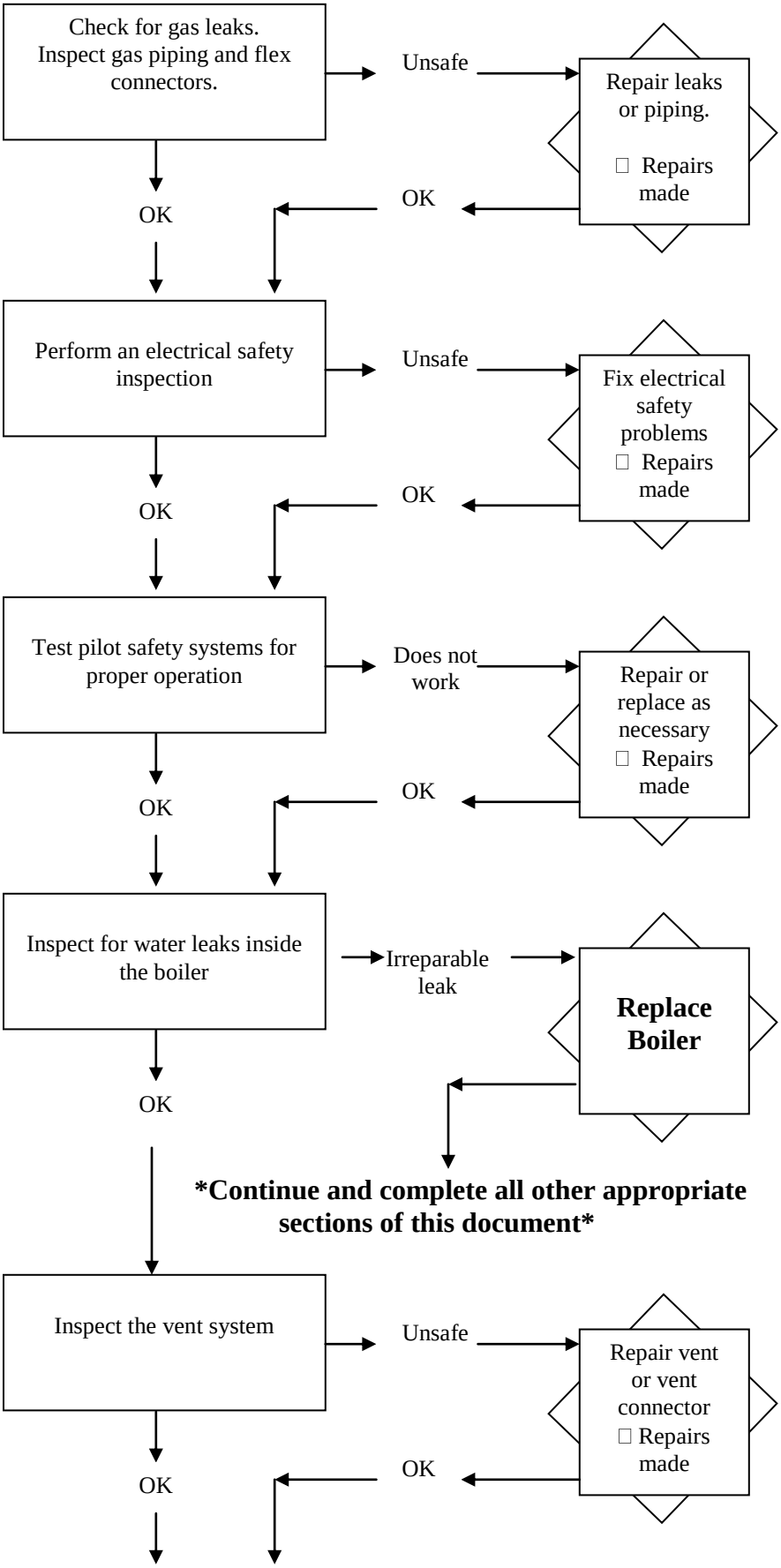
Define the CAZ (s): _____

Describe Venting System (s): _____

_____

Is this the final inspection of a new boiler installation? □ Yes □ No

*** Please draw a sketch on the reverse side of the last page as necessary for any descriptions ***



Technician

Gas System:
☐ OK

Operational shut-off switch?
☐ Yes

Electrical polarity correct?
☐ yes

Appliance grounded?
☐ yes

Pilot safety systems operational?
☐ Yes ☐ N/A

L.P. system 100% shut-off?
☐ Yes

Hole in a boiler section?
☐ Yes

Replace Boiler

Vent system:
☐ OK

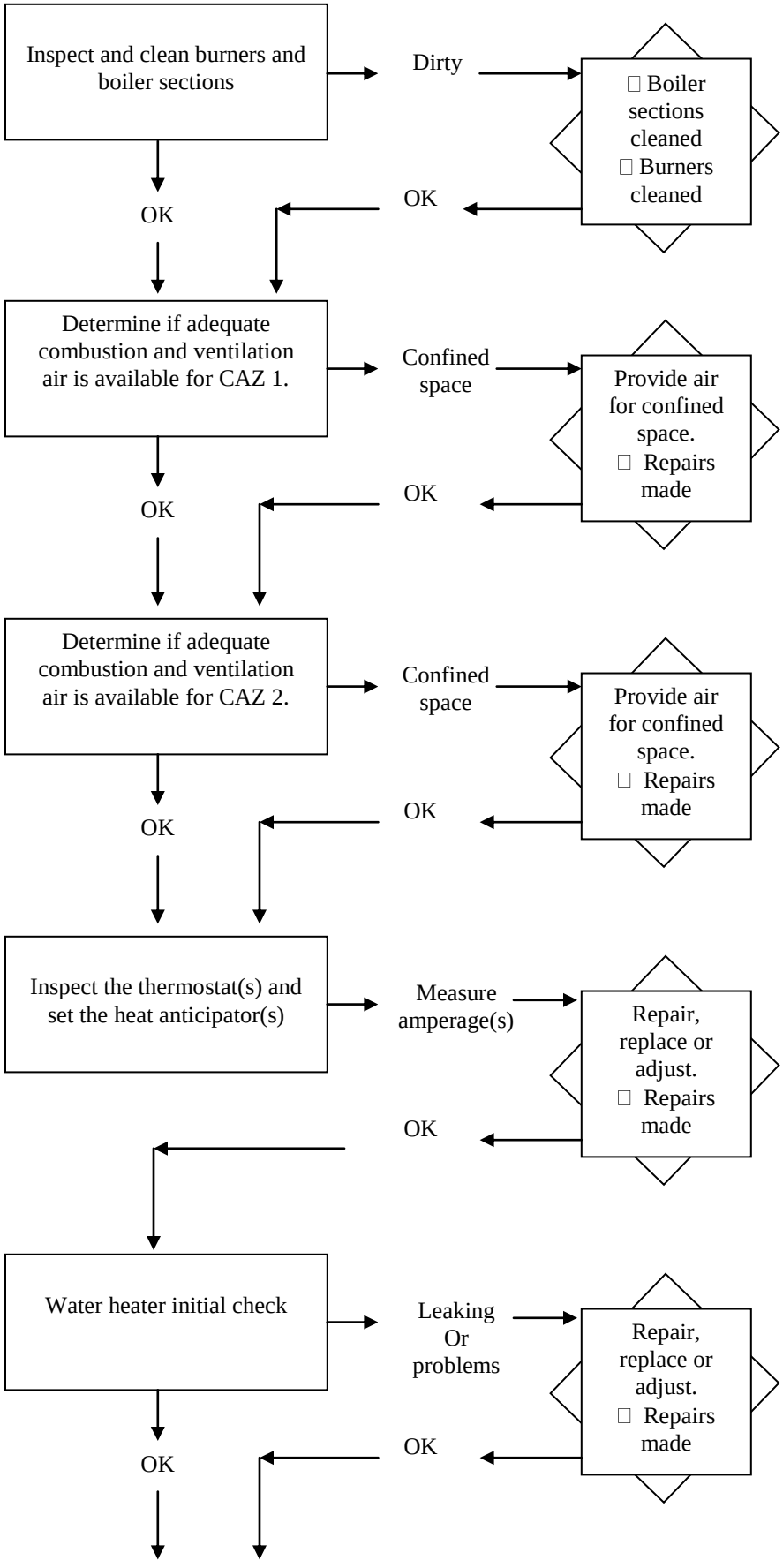
Inspector

Gas System:
☐ OK

Electrical system:
☐ OK

Pilot safety systems:
☐ OK

Vent system:
☐ OK



Technician

Burners and boiler sections:
☐ OK

Total BTUH in CAZ 1
_____ BTUH

Volume of air needed:
_____ Cu.Ft.
(Total BTUH divided by 20)

Volume available:
_____ Cu.Ft.
(L x W x H)

Document methods for providing air, if needed, in the "Comments" section, including pipe and grille sizes.

Total BTUH in CAZ 2
_____ BTUH

Volume of air needed:
_____ Cu.Ft.

Volume available:
_____ Cu.Ft.

☐ Combustion air work done by others.

Measured amperage at the thermostat(s):
____/____/____Amps

Heat anticipator reset?
☐ Yes ☐ No
☐ N/A

Properly installed temperature and pressure relief valve?
☐ Yes

Water temperature:
_____ Deg. F.

Adjusted?
☐ Yes ☐ No

Inspector

Burners and boiler sections:
☐ OK

Proper amount of combustion and ventilation air provided for CAZ 1?
☐ Yes

Proper amount of combustion and ventilation air provided for CAZ 2?
☐ Yes

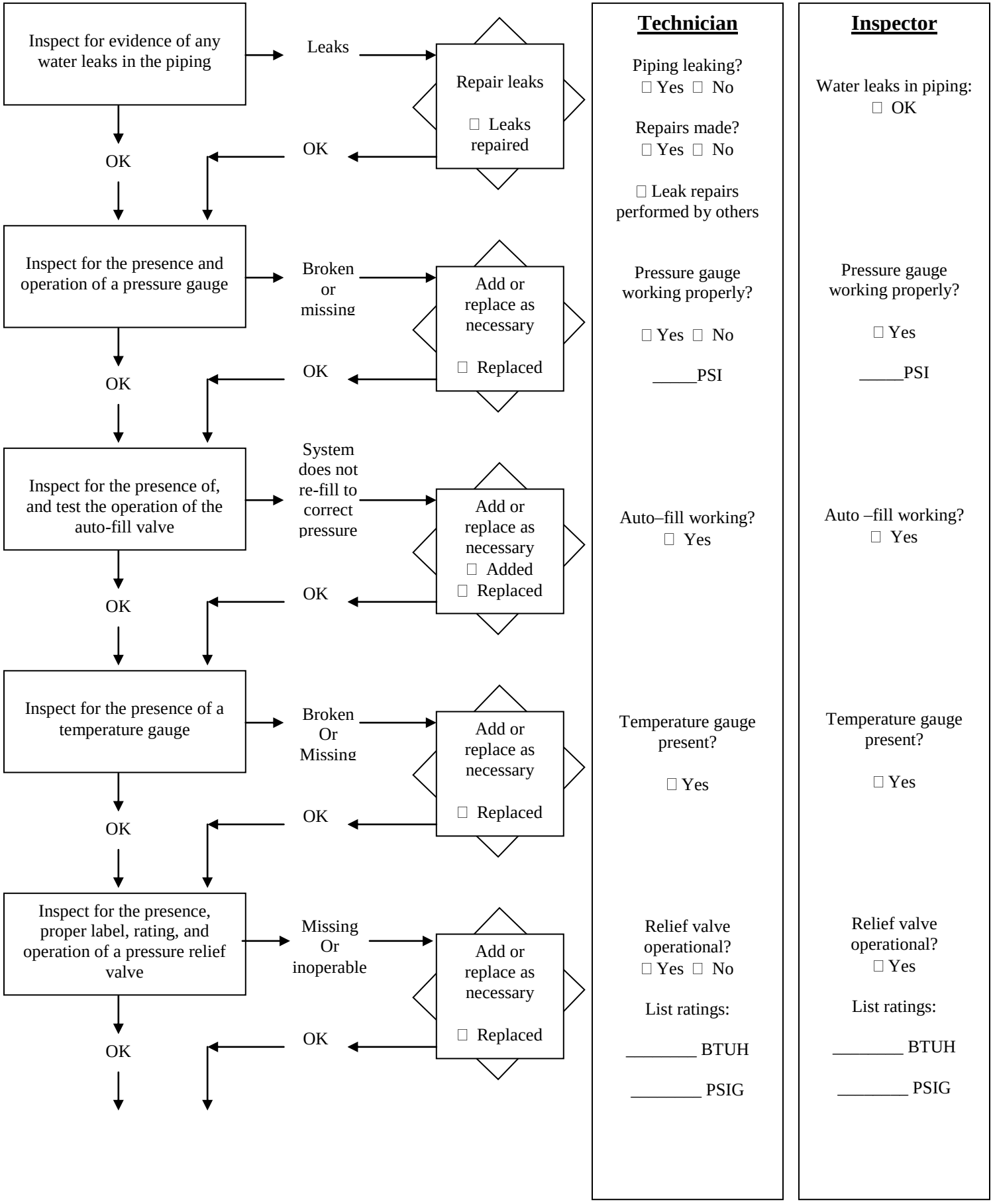
Heat anticipator setting:
____/____/____ Amps

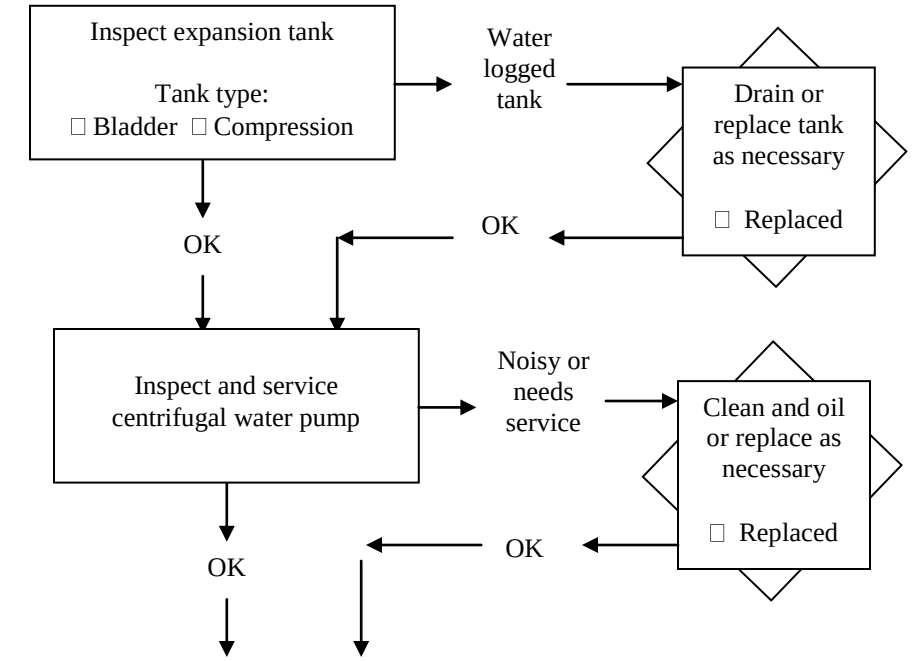
☐ N/A

Properly installed temperature and pressure relief valve?
☐ Yes

Water temperature:
_____ Deg. F.

Adjusted?
☐ Yes ☐ No


Inspect for evidence of any water leaks in the piping
Leaks
Repair leaks
Leaks repaired
OK
OK
Inspect for the presence and operation of a pressure gauge
Broken or missing
Add or replace as necessary
Replaced
OK
OK
Inspect for the presence of, and test the operation of the auto-fill valve
System does not re-fill to correct pressure
Add or replace as necessary
Added
Replaced
OK
OK
Inspect for the presence of a temperature gauge
Broken Or Missing
Add or replace as necessary
Replaced
OK
OK
Inspect for the presence, proper label, rating, and operation of a pressure relief valve
Missing Or inoperable
Add or replace as necessary
Replaced
OK
OK
Technician
Piping leaking?
Yes No
Repairs made?
Yes No
Leak repairs performed by others
Pressure gauge working properly?
Yes No
_____PSI
Auto–fill working?
Yes
Temperature gauge present?
Yes
Relief valve operational?
Yes No
List ratings:
_____ BTUH
_____ PSIG
Inspector
Water leaks in piping:
OK
Pressure gauge working properly?
Yes
_____PSI
Auto –fill working?
Yes
Temperature gauge present?
Yes
Relief valve operational?
Yes
List ratings:
_____ BTUH
_____ PSIG



*** Perform a "Worst Case Depresurization" test of the CAZ ***

Set-Up	Technician	Inspector
Boiler and water heater off?	□ Yes	□ Yes
All exterior windows and doors closed?	□ Yes	□ Yes
Fireplace or wood stove dampers closed?	□ Yes	□ Yes
Clothes dryer and all exhaust fans operating? (Do not operate whole house exhaust fans)	□ Yes	□ Yes
Doors to rooms with no exhaust fans closed?	□ Yes	□ Yes
Blower door being used to simulate 300 CFM fireplace flow?	□ N/A □ Yes	□ Yes

"Worst Case" CAZ Depressurization Test	Technician
Is there a door from the interior to the CAZ?	□ Yes □ No
CAZ pressure WRT outside / CAZ door to interior open.	_____ Pa
CAZ pressure WRT outside / CAZ door to interior closed.	_____ Pa

Set up the CAZ under "Worst Case" depressurization conditions before testing the combustion appliances.

	Technician	Inspector
Expansion tank operational:	□ Yes	□ Yes
Pump serviced and functional:	□ Yes	□ Yes
"Worst Case" set-up complete?	□ Yes	□ Yes
		Inspector: _____ Pa _____ Pa
"Worst Case" depressurization measurement of the CAZ:	_____ Pa	
Final "Worst Case" depressurization measurement of the CAZ:		_____ Pa

Note: Initial combustion safety testing must be completed. If it is found that the appliances will not work under "Worst Case" conditions, then continue testing and repair under "normal operating conditions" and document in the "Follow-up" section of this guide.

Perform Safety testing on the gas appliances in the appropriate order.

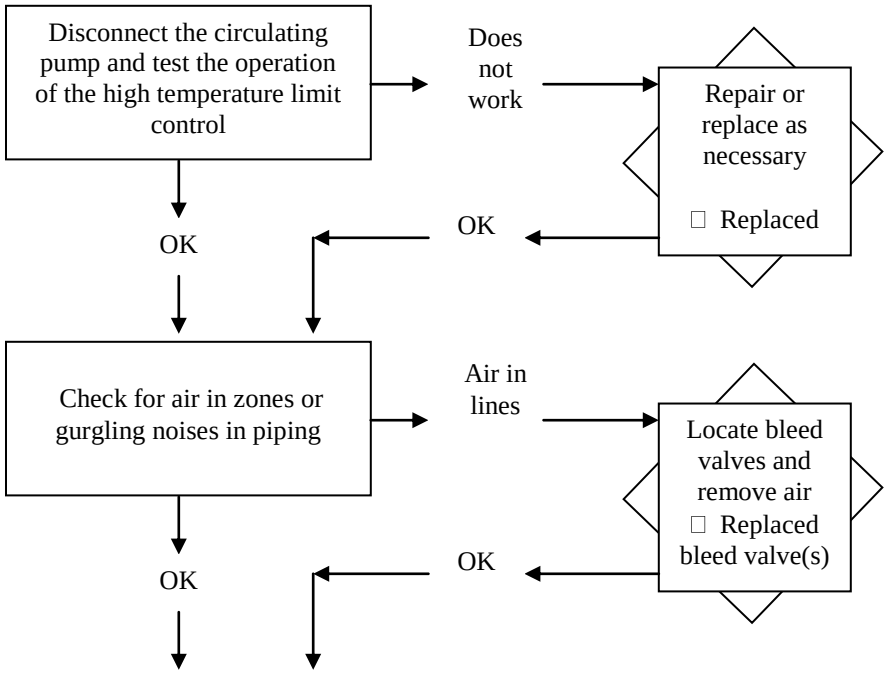
Important: Test the lowest BTUH appliance in the CAZ first

Water Heater "5 Minute" Test Procedure

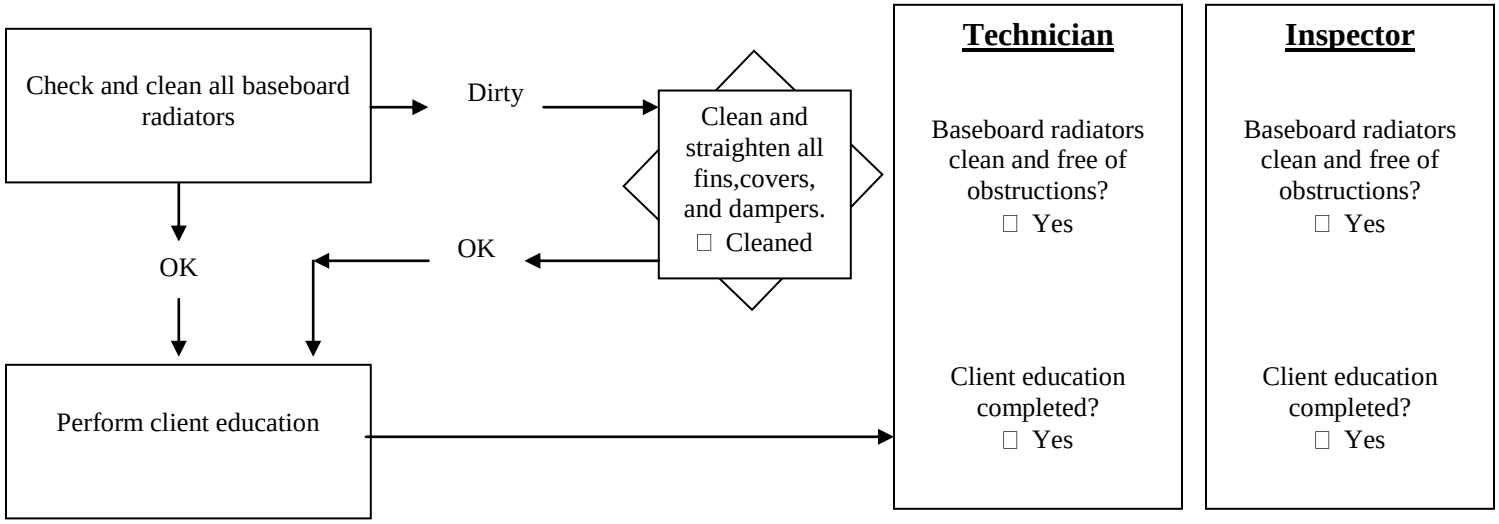
	Technician Initial Test
Fire the water heater.	
Was initial flow established in the vent?	☐ Yes ☐ No
Was there spillage after two minutes?	☐ Yes ☐ No
Draft pressure after five minutes:	_____ Pa **or** _____ " W.C.
Carbon monoxide after five minutes:	_____ / _____ PPM
☐ N/A	☐ Repairs made

Heating Appliance "5 Minute" Test Procedure

	Technician Initial Test
Fire the heating appliance.	
Was initial flow established in the vent?	☐ Yes ☐ No
Was there spillage after two minutes?	☐ Yes ☐ No
Did operation of the heating appliance cause spillage or a reduction in draft at any other appliance in the CAZ?	☐ N/A ☐ Yes ☐ No
Water temperature gauge operational?	☐ Yes ☐ No ☐ Replaced
Draft pressure after five minutes:	_____ Pa **or** _____ " W.C.
Carbon monoxide after five minutes:	____/____/____/____/____/____ PPM
☐ Flame roll-out/incorrectly cleaned	☐ Repairs made



Technician	Inspector
☐ Not tested under "Worst Case" conditions	☐ Not tested under "Worst Case" conditions
Outdoor air temp: _____ Deg. F.	Outdoor air temp: _____ Deg. F.
Water heater: Able to establish flow in vent? ☐ Yes	**Water heater**: Able to establish flow in vent? ☐ Yes
Spillage? ☐ No	Spillage? ☐ No
Draft pressure: ___ Pa / ___ " W.C.	Draft pressure: ___ Pa / ___ " W.C.
Carbon monoxide: _____ / _____ PPM	Carbon monoxide: _____ / _____ PPM
Heating appliance: Able to establish flow in vent? ☐ Yes	**Heating appliance**: Able to establish flow in vent? ☐ Yes
Spillage? ☐ No	Spillage? ☐ No
Temperature gauge operational? ☐ Yes	Temperature gauge operational? ☐ Yes
Draft pressure: ___ Pa / ___ " W.C.	Draft pressure: ___ Pa / ___ " W.C.
Carbon monoxide: ___ / ___ / ___ / ___ ___ / ___ / PPM	Carbon monoxide: ___ / ___ / ___ / ___ ___ / ___ / PPM
Limit control operational? ☐ Yes	Limit control operational? ☐ Yes
Piping free of trapped air? ☐ Yes	Piping free of trapped air? ☐ Yes



Optional: Clocking the gas meter

Dial used: _____ Ft. Seconds for four revolutions: _____ Seconds
Average seconds for one revolution: _____ Seconds Cubic feet per hour (from chart): _____ Cubic Ft.
Cubic feet per hour X _____ (local BTUH content/cubic foot) = _____ BTUH measured input rate
Nameplate input: _____ BTUH

Technician: _____ Date: _____

Final Inspector: _____ Date: _____

Agency reviewer: _____ Date: _____

Additional comments: _____

Revision date: 4/14/03