The following procedure is intended as a guide to aid in determining that an appliance is properly installed and is in a safe condition for continuing use.

This procedure is intended for central furnace and boiler installations and may not be applicable to all installations.

(a) This procedure should be performed prior to any attempt at modification of the appliance or of the installation.

(b) If it is determined that there is a condition that could result in unsafe operation, shut off the appliance and advise the owner of the unsafe condition. The following steps should be followed in making the safety inspection:

1. Conduct a check for gas leakage. (See Section C406.6)

2. Visually inspect the venting system for proper size and horizontal pitch and determine there is no blockage or restriction, leakage, corrosion and other deficiencies that could cause an unsafe condition.

3. Shut off all gas to the appliance and shut off any other fuel-gas-burning appliance within the same room. Use the shutoff valve in the supply line to each appliance.

4. Inspect burners and crossovers for blockage and corrosion.

5. Furnace installations: Inspect the heat exchanger for cracks, openings or excessive corrosion.


7. Close all building doors and windows and all doors between the space in which the appliance is located and other spaces of the building that can be closed. Turn on any clothes dryers. Turn on any exhaust fans, such as range hoods and bathroom exhausts, so they will operate at maximum speed. Do not operate a summer exhaust fan. Close fireplace dampers. If, after completing Steps 8 through 13, it is believed sufficient combustion air is not available, refer to Section C304 of this code.

8. Place the appliance being inspected in operation. Follow the lighting instructions. Adjust the thermostat so appliance will operate continuously.

9. Determine that the pilot, where provided, is burning properly and that the main burner ignition is satisfactory by interrupting and reestablishing the electrical supply to the appliance in any convenient manner. If the appliance is equipped with a continuous pilot, test all pilot safety devices to determine if they are operating properly by extinguishing the pilot when the main burner is off and determining, after 3 minutes, that the main burner gas does not flow upon a call for heat. If the appliance is not provided with a pilot, test for proper operation of the ignition system in accordance with the appliance manufacturer’s lighting and operating instructions.

10. Visually determine that the main burner gas is burning properly (i.e., no floating, lifting or flashback). Adjust the primary air shutters as required. If the appliance is equipped with high and low flame controlling or flame modulation, check for proper main burner operation at low flame.

11. Test for spillage at the draft hood relief opening after 5 minutes of main burner operation. Use the flame of a match or candle or smoke.

12. Turn on all other fuel-gas-burning appliances within the same room so they will operate at their full inputs. Follow lighting instructions for each appliance.

13. Repeat Steps 10 and 11 on the appliance being inspected.

14. Return doors, windows, exhaust fans, fireplace dampers and any other fuel-gas-burning appliance to their previous conditions of use.

15. Furnace installations: Check both the limit control and the fan control for proper operation. Limit control operation can be checked by blocking the circulating air inlet or temporarily disconnecting the electrical supply to the blower motor and determining that the limit control acts to shut off the main burner gas.

16. Boiler installations: Verify that the water pumps are in operating condition. Test low water cutoffs, automatic feed controls, pressure and temperature limit controls and relief valves in accordance with the manufacturer’s recommendations to determine that they are in operating condition.