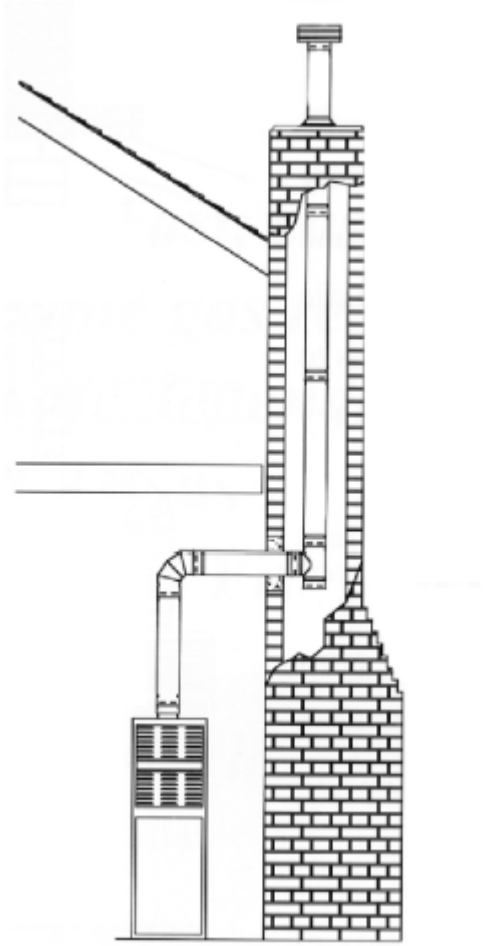
Commentary

Orphaned appliances

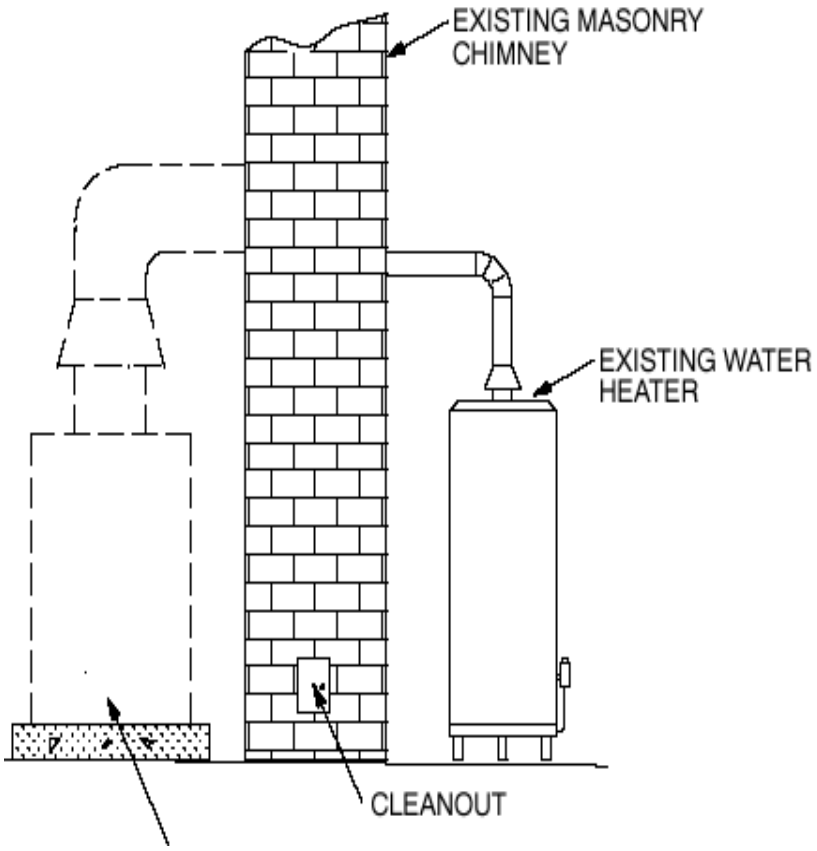
(OMSC - 801.18 (C501.15) or ORSC - G2425.15)

The combined input from multiple appliances, especially older lower-efficiency appliances, can maintain sufficiently high chimney or vent temperatures to provide the necessary draft and to avoid condensation. Changing an existing configuration by disconnecting and eliminating an appliance or by substituting a higher-efficiency appliance can cause a decrease in flue-gas temperature resulting in condensation or poor draft. Also, the elimination of one or more draft-hood-equipped appliances will reduce the amount of dilution air in a venting system, thus increasing the likelihood of condensation. Often, it is necessary to resize a chimney or vent by replacing it with a smaller-size chimney or vent or by installing a liner system.

A common scenario involves removing chimney-vented furnaces or boilers and leaving a water heater as the only appliance vented to the chimney. In such cases, the chimney would typically be grossly over-sized for the water heater, could fail to produce adequate draft, and could be subject to continuous condensation. This scenario has received much attention and has created the phrase "***orphaned water heaters***".



RE-LINE EXISTING CHIMNEY



"**ORPHANED WATER HEATER**" SCENARIO.
FURNACE CHANGED TO 90%+, CHIMNEY NO
LONGER NEEDED FOR FURNACE.

Existing chimneys and vents need to be re-evaluated for continued suitability ***whenever the conditions of use change***. Size is of primary importance. Other considerations are the presence of liner obstructions, combustible deposits in the liner, the structural condition of the liner, the provision of a cleanout, and clearances to combustibles. Chimneys, vents, and the appliances served are all designed to function together as a system, and any change to an existing chimney or vent system will have an impact on the performance of such a system. Something as simple as disconnecting an appliance from a chimney can upset the system balance and cause the venting system to fail to produce a draft for the remaining appliance(s) and could cause the venting system to produce harmful condensation and back drafting.

It is the intent of the code that whenever a new appliance is connected ***or an existing appliance*** is disconnected, the chimney or vent shall be subject to the requirements for new chimneys or vent installations, which may include requirements for inspection, cleaning, possible repair, installation of a liner if needed and the establishment of clearances to combustibles.

(Excerpted from 2006 IRC Commentary)