Chimney Liner Requirement – Rehab

The Code Assistance Unit has received many questions regarding whether a chimney liner is required when a furnace, boiler or water heater is replaced in a one- or two-family dwelling.

Replacing a furnace, boiler or water heater in an existing one- and two-family dwelling falls under the Rehabilitation Subcode, NJAC 5:23-6; this work is typically classified as “Renovation” by definition. More specifically, NJAC 5:23-6.5(h) refers you to NJAC 5:23-6.8, the Residential Materials and Methods. Here, you find that NJAC 5:23-6.8(h)14 requires compliance with all portions of Chapter 24 from the 2009 International Residential Code (IRC) that pertains to gas equipment and there are many sections that refer to resizing chimneys when equipment is replaced or removed.

A specific example from the IRC is Section G2425.15.1. Here it states, “The chimney or vent shall be resized as necessary to control flue gas condensation in the interior of the chimney or vent and to provide the appliance or appliances served with the required draft.”

The problem is there are no chimney or vent sizing tables that deal with exterior chimneys in the IRC. Luckily, the International Code Council was smart enough to link the IRC to the 2009 International Fuel Gas Code (IFGC) in this manner. Here, Section G2401.1 of the IRC states in the third paragraph, “The omission from this chapter of any material or method of installation provided for in the International Fuel Gas Code shall not be construed as prohibiting the use of such material or method of installation. Fuel-gas piping systems, fuel-gas appliances and related accessories, venting systems and combustion air configurations not specifically covered in these chapters shall comply with the applicable provisions of the International Fuel Gas Code.” Therefore, in order to resize the exterior chimney, Tables 504.3(6a) (6b) or 504.3 (7a) or (7b) in the IFGC should be used.

When the contractor signs the "Chimney Verification" form, he/she is indicating that the existing chimney is in good physical condition and is appropriately sized. When this form is submitted to the construction office and the form indicates that there is an existing exterior chimney, that should raise a flag that a chimney liner would be required.

Liner resizing is important due to equipment today being more efficient when it comes to exterior chimneys. Less heat and draft up the chimney tend to cause a condensation problem.

Note that an interior chimney generally does not lead to a condensation problem because it is located in a conditioned area.

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