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Code Section: IRC M1503.4

3/31/14

Revise as follows:

M1503.4 Makeup air required. Exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute (0.19 m³/s) shall be mechanically or naturally provided with makeup air at a rate approximately equal to the difference of the exhaust air rate that is in excess of 400 cubic feet per minute. Such makeup air systems shall be equipped with not less than one damper. Each damper shall be a gravity damper or an electrically operated damper that automatically opens when the exhaust system operates. Dampers shall be accessible for inspection, service, repair and replacement without removing permanent construction or any other ducts not connected to the damper being inspected, serviced, repaired or replaced.

Exception: Where all appliances within a dwelling unit's air barrier are sealed combustion, power-vent, unvented, or electric, makeup air shall be provided where exhaust fans are capable of exhausting more than 600 cubic feet per minute (0.28 m³/s). Exhaust hood systems capable of exhausting more than 600 cubic feet per minute (0.28 m³/s) shall be provided with makeup air at a rate approximately equal to the difference of the exhaust air rate that is in excess of 600 cubic feet per minute.

Reason: The section on makeup air is meant to address appliance backdrafting. Over three code cycles 400 cfm has been upheld as the accepted threshold by the membership, so this proposed language does not attempt to change that.

The current section requires 0 cfm of makeup air for a 400 cfm exhaust system, but it stipulates that 401 cfm of makeup air be supplied for a system that is just 1 cfm larger. Logic would suggest that if a 400 cfm exhaust system is code compliant, then a 500 cfm system with 100 cfm of makeup air would be, too (400 = 500 - 100). Why is this not the case? The underlined text in the charging paragraph attempts to fix this.

The proposed exception provides a higher threshold for appliances which are not, or are not as, susceptible to backdrafting. (Note that the current requirement is in effect even in all-electric homes or where the only combustion appliances are direct vent or unvented.) It would make sense to have a simple exception (or two) for these scenarios.