

## Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

*Public Comment:*

**Bob Eugene representing Underwriters Laboratories Inc, requests Approval as Modified by this Public Comment.**

**Modify the proposal as follows:**

**Revise Committee action as follows:**

**507.2 Where required.** A Type I or Type II hood shall be installed at or above all *commercial cooking appliances* in accordance with Sections 507.2.1 and 507.2.2. Where any cooking *appliance* under a single hood requires a Type I hood, a Type I hood shall be installed. Where a Type II hood is required, a Type I or Type II hood shall be installed.

**Exception:** Where cooking appliances are equipped with integral down-draft exhaust systems and such appliances and exhaust systems are listed and labeled for the application in accordance with NFPA 96, a hood shall not be required at or above them.

**Commenter's Reason:** There's confusion over what the appropriate requirements are for these downdraft appliances and if an exception is to be provided, I believe the Code must specify the requirements used for listing. Chapter 15 of NFPA 96 was added to specifically address requirements for these systems.

**Analysis:** The standard, NFPA 96, was not reviewed or considered by the IMC Code Development committee and it was not considered by the hearing attendees at the time of the code development hearings. Section 3.6.3.1 of Council Policy #28, *Code Development*, requires that new standards be introduced in the original code change proposal, therefore, the introduction of a new standard via a public comment is not in accordance with the process required by CP# 28 for adding new standards to the code.

Final Action:                    AS                    AM                    AMPC\_\_\_\_                    D

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**M64-09/10**                    approved as submitted  
**507.2.1, 507.2.2**

### Proposed Change as Submitted

**Proponent:** Douglas J. Horton, D.J. HORTON and Associates, Inc., representing Commercial Kitchen Ventilation Technical Interest Group

**Revise as follows:**

**507.2.1 Type I hoods.** Type I hoods shall be installed where cooking *appliances* produce grease or smoke. Type I hoods shall be installed over *medium-duty, heavy-duty and extra-heavy-duty cooking appliances*. Type I hoods shall be installed over *light-duty cooking appliances* that produce grease or smoke.

**Exception:** A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m<sup>3</sup> or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m<sup>3</sup>/s) in accordance with Section 17 of UL 710B.

**507.2.2 Type II hoods.** Type II hoods shall be installed above dishwashers and ~~light-duty appliances~~ appliances that produce heat or moisture and do not produce grease or smoke, except where the heat and moisture loads from such appliances are incorporated into the HVAC system design or into the design of a separate removal system. Type II hoods shall be installed above all ~~light-duty appliances~~ appliances that produce products of *combustion* and do not produce grease or smoke. Spaces containing cooking appliances that do not require Type II hoods shall be ventilated in accordance with Section 403.3. For the purpose of determining the floor area required to be ventilated, each individual *appliance* that is not required to be installed under a Type II hood shall be considered as occupying not less than 100 square feet (9.3 m<sup>2</sup>).

**Reason:** A growing issue is the proliferation of small appliances and related cooking in which little or no grease is produced, such as in convenience stores and other venues. Thus, a minimum threshold should be provided in the IMC to eliminate the expense of first cost, and energy costs of fan energy and tempering makeup air, where grease emissions are minimal or nonexistent. Such a minimum threshold already exists in codes and standards, and this proposal is provided to harmonize the IMC with NFPA Standard 96 and UL Standard 710B. NFPA 96 contains the threshold requirement and UL 710B, Section 17, contains the applicable test procedure. NFPA 96, in sections 4.1.1.2 and 4.1.1.3, exempts from exhaust systems cooking equipment that has grease discharge that does not exceed 5 mg/m<sup>3</sup> when tested at an exhaust airflow rate of 500 cfm (0.236 m<sup>3</sup>/s). Note that NFPA 96 is written entirely from a fire safety point of view, so only a Type I (in IMC terms) hood requirements are included in the standard.

State jurisdictions are beginning to pick up this exception in their adoptions of the IMC. For example, both Michigan and California mechanical codes either cite the grease test requirements explicitly or cite NFPA 96 for exhaust system requirements.

Editorial Note: The 2008 NFPA 96 cites UL 197 in sections 4.1.1.2 and 4.1.1.3, though the grease emissions test has been moved to Section 17 of UL 710B. Therefore, the proposed IMC exception should cite the actual grease emissions threshold requirement rather than citing NFPA 96, which contains the outdated reference.

In relation to Section 507.2.2, if a Type I hood is not required because of low grease emissions, per the first part of this proposal, the provisions of section 507.2.2 still apply, and a Type II hood may be required. This is problematic with the existing wording because Type II hoods are currently required only for dishwashers and light-duty appliances. Yet it is well known that appliances with duty ratings higher than light-duty produce heat and moisture while not producing grease or combustion products, such as electric ranges, electric pasta cookers, electric pizza ovens, and electric tilting skillets, for example. Accordingly, Type II hoods should be required for appliances based on their actual emissions of heat and moisture, regardless of duty. Of course, per current Section 507.2.2, additional HVAC capacity is still available as an alternative to use of a Type II hood.

**Cost Impact:** The code change proposal will not increase the cost of construction.

ICCFILENAME: HORTON-M-1-507.2

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### **Public Hearing Results**

**Committee Action:**

**Approved as Submitted**

**Committee Reason:** Approval is based upon the proponent's printed reason. Having a measurable performance criteria is desired in applying the code. The proposed text is consistent with NFPA 96.

**Assembly Action:**

**None**

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### **Individual Consideration Agenda**

**This item is on the agenda for individual consideration because a public comment was submitted.**

**Public Comment:**

**Tony Crimi, A.C. Consulting Solutions Inc , representing International Firestop Council, requests Disapproval.**

**Reason:** The existing IMC requirement in 507.2.1 is very clear in requiring Type I hoods to be installed over *medium-duty, heavy-duty* and *extra-heavy-duty cooking appliances* and over *light-duty cooking appliances* that produce grease or smoke. The proposed change clouds the issue because it somehow gives credit for the power source of the appliance, when determining the need for the installation of a Type I hood for exhausting hazardous and flammable vapours emitting from the cooking medium (i.e. vegetable oils and fats).

There is insufficient justification provided as to the significance of the 5 mg/m<sup>3</sup> , and as to why this would apply only to electric heating appliances. The fact that the appliance is electric does not change the fact that it is a "*light-duty cooking appliances* that produce grease or smoke", as the current IMC requires.

Final Action:

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**M72-09/10**

**507.3**

### **Proposed Change as Submitted**

**Proponent:** Guy McMann, Jefferson County, CO, representing the Colorado Association of Plumbing and Mechanical Officials (CAPMO)

**Revise as follows:**

**507.3 Fuel-burning appliances.** ~~Where vented fuel-burning appliances are located in the same room or space as the hood, provisions shall be made to prevent the hood system from interfering with normal operation of the appliance vents.~~ Non-direct-vent appliances shall not be located in a room or space containing a Type I or Type II hood nor in a room or space that opens only into a room or space containing such hoods.