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PLI Code Bulletin - Hood Requirements
Related to Domestic Cooking Appliances

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SUBJECT OF INTERPRETATION

This Bulletin addresses common questions related to hood requirements for domestic cooking appliances used outside of commercial kitchens and/or dwelling units as regulated by the *2015 International Building Code (IBC)* and *2015 International Mechanical Code (IMC)*.

APPLICABILITY

This interpretation shall apply to installation of all domestic cooking appliances used in buildings within the City of Pittsburgh regulated by the *IBC* and *IMC* in spaces other than dwelling units. The Bulletin shall apply to this topic, including under subsequent versions of the referenced code/standard, until the current PLI Building Code Official (BCO) modifies and/or rescinds the interpretation.

This Bulletin does not apply to commercial food service establishments, such as a restaurant, café, commissary kitchen, etc. which require commercial cooking appliances.¹ In these types of spaces medium-duty, heavy-duty, and extra-heavy-duty commercial cooking appliances that create grease and/or smoke require Type I Hoods.²

INTERPRETATION

PLI has identified spaces that shall require a domestic hood, a Type I hood, or administrative review to determine the appropriate type of hood when a domestic cooking appliance is used. For the purposes of

¹ 2015 *IMC* Section 917

² 2015 *IMC* Section 507.2

this Bulletin, the calculated occupant load for adjacent assembly spaces shall be based on the density assigned to loose table and chairs – 15 net square feet per occupant.³

Domestic Hood Required. The use of domestic cooking appliances in the spaces identified in this section have been determined to be used for domestic purposes and shall be provided with a domestic hood installed per *IMC* Section 505. This determination is based on the scale and potential frequency of use of the cooking appliances. These requirements shall apply to the following spaces:

1. Spaces such as a break room, kitchenette/lunchroom, dorm kitchen, and bed-and-breakfast if the calculated occupant load of any adjacent assembly seating/dining areas is limited to a maximum of 99 people.
2. Spaces such as a multifamily clubhouse or community room, church assembly hall, child care facility, police and fire station, and VFW and similar hall if one of the following apply to any adjacent assembly seating/dining areas:
 - a. The proportion of this area in relation to the primary use is such that it shall be classified as an accessory use.⁴
 - b. The size and/or calculated occupant load require classification as Group B or primary occupancy.⁵
3. Spaces such as training/demonstration kitchens where the cooking is similar to that prepared in a dwelling unit.

Type I Hood Required. The use of domestic cooking appliances in the spaces identified in this section have been determined to be used for commercial purposes and shall be provided with a Type I Hood and exhaust system installed per *IMC* Sections 506 and 507. This determination is based on the potential fire hazard associated with the use of cooking appliances being combined with the hazard associated with an assembly use requiring a suppression system as a life safety system. These requirements shall apply to the following spaces:

1. Spaces such as a break room, kitchenette/lunchroom, dorm kitchen, and bed-and-breakfast if the calculated occupant load of any adjacent assembly seating/dining areas is 100 or more.

³ 2015 *IBC* Table 1004.1.2

⁴ 2015 *IBC* Section 508.2

⁵ 2015 *IBC* Sections 303.1.1 and 303.1.2

2. Spaces such as a multifamily clubhouse or community room, church assembly hall, child care facility, police and fire station, and VFW and similar hall if the calculated occupant load of any adjacent assembly seating/dining areas is 100 or more.
3. Spaces such as training/demonstration kitchens where the cooking is similar to that prepared in a commercial kitchen.

Administrative Review Required. The use of domestic cooking appliances in the spaces identified in this section are such that the nature of the use, commercial or domestic purposes, is dependent on the characteristics of each installation and therefore require administrative review by PLI's Building Code Official or Permitting Supervisor. It is anticipated that requirements will vary from a domestic hood, to a domestic hood with hood suppression listed for domestic use, to a Type I Hood. These requirements shall apply to the following spaces:

1. Spaces such as a multifamily clubhouse or community room, church assembly hall, child care facility, police and fire station, and VFW and similar hall if the calculated occupant load of any adjacent assembly seating/dining areas is between 49 and 100.
2. Spaces such as domestic-type kitchens in common spaces of institutional occupancies.

BASIS FOR INTERPRETATION

The *IMC* addresses use of domestic cooking appliances used for commercial purposes. The text of the applicable code section reads as follows⁶:

“Domestic cooking appliances utilized for commercial purposes shall be provided with Type I or Type II hoods as required for the type of appliances and processes in accordance with Sections 507.2 and 507.3. Domestic cooking appliances utilized for domestic purposes shall comply with Section 505.”

As identified in this section, the type of hood required for a domestic cooking appliance is based on the nature of the use – commercial or residential purposes. If used for commercial purposes, the commercial cooking hood standards apply – IMC Sections 507.2 and 507.3. If used for domestic purposes, the domestic hood requirements of IMC Section 505 apply.

Additional guidance is provided in the *IMC Code and Commentary*, which recommends the code official evaluate the nature of the “cooking operation(s) before determining whether an exhaust hood is required”⁷ It also advises that use of a domestic appliance in a commercial building does not directly determine the nature of the use.⁷

⁶ 2015 *IMC* Section 507.1.2

⁷ 2015 *IMC* Code and Commentary Section 507.1.2

The *IMC Code and Commentary* further indicates the following⁸:

1. The “primary purpose of a Type I hood is to control a potential fire hazard associated with grease”.
2. The following spaces would typically require Type I Hoods: “cafeterias, restaurants, dormitory kitchens, hotels, motels, schools and institutional occupancies”.
3. Other spaces require evaluating the “frequency of use”.
4. Other spaces that require evaluation include: “church assembly halls; child care facilities; office or factory lunch rooms; employee break rooms; police and fire stations; bed-and-breakfast lodgings; VFW and similar halls; domestic-type kitchens in institutional occupancies; classrooms used to teach cooking; cooking demonstration displays; charity soup kitchens.”

In evaluating the nature of these uses PLI has compared these to commercial uses, such as restaurants, that require Type I hoods due to nature of the appliances and the frequency of use. Also considered is that the occupancy classification for restaurants, Group A-2, requires a suppression system when the occupant load is 100 or more.⁹

⁸ 2015 *IMC* Code and Commentary Section 507.2

⁹ 2015 *IBC* Sections 303.3 and 903.2.1.2