



## **Policy Regarding Commercial Cooking Operations, the Need for Ventilation Control, and Fire Suppression Systems**

November 2017

**PLEASE NOTE:** Informational Bulletins should not be used as substitutes for actual codes and regulations. Detailed information regarding codes and regulations can be obtained by calling the Code Administration Division at 307-721-5271.

### **City of Laramie Policy**

All commercial cooking operations in a for-profit business, restaurant, assembly occupancy, daycare/childcare facility, coffee shop, and similar operations where cooking operations occur on a daily basis within the City of Laramie corporate limits shall be provided with an approved exhaust ventilation system and UL-300 fire suppression system installed and maintained in compliance with the applicable codes. This shall also apply to residential cooking appliances used in commercial cooking operations.

This is not intended to apply to family daycare operations conducted for profit in a single-family residence and licensed by the WY Department of Family Services. It is also not intended to apply to church and meeting facilities where the intent of the cooking operations is to re-warm previously prepared foods on an infrequent basis.

Written agreements between the occupancy management and the City of Laramie shall limit the type of cooking operations and frequency of such operations in church and meeting facility kitchens utilizing residential appliances. New installations in churches and meeting facilities shall be protected by listed and labeled residential type fire suppression systems installed in accordance with the manufacturer's instructions and maintained in accordance with the manufacturer's recommendation.

The Fire Marshal and the Building Official shall confer and determine the level of fire protection required for new construction and remodels. In those cases where the authorities having jurisdiction determines that the existing conditions present an unacceptable degree of risk, the authorities having jurisdiction shall be permitted to apply retroactively any provisions of the applicable codes deemed appropriate.

### **References to Adopted Codes and Applicable NFPA Standards**

- A. 2014 NFPA Standard 96-Ventilation Control and Fire Protection of Commercial Cooking Operations**  
NFPA 96 Scope and Purpose
1. Provides minimum fire safety requirements (preventative and operative) related to the design, installation, operation, inspection, and maintenance of all public and private cooking operations.
  2. This standard shall apply to residential cooking equipment used for commercial cooking operations.
  3. This standard shall not apply to cooking equipment located in a single dwelling unit.
  4. This standard shall not apply to facilities where all of the following are met (Section 1.1.4\*):
    - a. Only residential equipment is being used.
    - b. Fire extinguishers to be located in all kitchen areas in accordance with NFPA 10, Standard for Portable Fire Extinguishers.
    - c. The facility is not an assembly occupancy.

d. The authority having jurisdiction has approved the installation.

*\*NFPA 96 Annex A, Section 1.1.4 states "this judgment should take into account the type of cooking being performed, items being cooked, and the frequency of cooking operations. Examples of operations that might not require compliance with this standard include the following:*

- 1) Day care centers warming bottles and lunches*
- 2) Therapy cooking facilities in health care*
- 3) Churches and meeting operations that are not cooking meals that produce grease-laden vapors*
- 4) Employee break rooms where food is warmed*

*LFD Fire Marshal commentary regarding the above: NFPA 96 makes reference to the facility not being an assembly occupancy. Assembly occupancies are clearly defined in the codes, but child care facilities can have significant numbers of small children that require adult assistance to safely escape under potential fire conditions. Day care facilities can present life safety issues on a par with assembly occupancies.*

*With regard to the occupancy types listed in Annex A, Section 1.1.4, it*

*needs to be noted that day care centers and employee break rooms specifically mention warming of bottles, lunches, and food as opposed to cooking these items. Cooking implies the use of operations that can potentially produce grease-laden vapors. Cooking times tend to be longer than warming. While the frequency of cooking and warming operations can be similar on daily basis, cooking processes and the type of items being cooked can vary greatly. It is the inability to control these processes and the potential for frequent menu changes that make these issues difficult to control in commercial cooking operations.*

5. The purpose of this standard shall be to reduce the potential fire hazard of cooking operations, irrespective of the type of cooking equipment used and whether used in public or private facilities.
6. This standard shall be applied as a united whole.
7. Unless otherwise specified, the provisions of this standard shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction prior to the effective date of this standard. Where specified, the provisions of this standard shall be retroactive.
8. In those cases where the authority having jurisdiction (AHJ) determines that the

existing situation presents an unacceptable degree of risk, the AHJ shall be permitted to apply retroactively any portions of this standard deemed appropriate.

## B. 2015 International Fire Code

### Definitions

1. **Commercial Cooking Appliances:**  
Appliances used in a commercial food service establishment for heating or cooking food and which produce grease vapors, steam, fumes, smoke, or odors that are required to be removed through a local exhaust ventilation system. Such appliances include deep fat fryers, upright broilers, griddles, broilers, steam-jacketed kettles, hot-top ranges, under-fired broilers (char broilers), ovens, rotisseries, and similar appliances. For the purposes of this definition, a food service establishment shall include any building or portion thereof used for the preparation and serving of food. (Section 602.1)  
This definition is important in the application of Section 610 which requires a commercial kitchen hood above commercial cooking appliances. "Food service" includes operations such as preparing, handling, cleaning, cooking, and packaging food items of any kind. (Language from IFC Commentary)
2. **[M] HOOD.** An air-intake device used to capture by entrapment, impingement, adhesion or similar means, grease and similar contaminants before they enter a duct system.  
Type I: A kitchen hood for collecting and removing grease vapors and smoke.

## SECTION 609-COMMERCIAL KITCHEN HOODS

### [M] 609.1 General

Commercial kitchen exhaust hoods shall comply with the requirements of the *International Mechanical Code*.

### [M] 609.2 Where

**required.** A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors. (Section 602.1)

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 (0.236m<sup>3</sup>/s) in accordance with UL 710B

## C. 2015 International Mechanical Code

### Definitions

#### COMMERCIAL COOKING

**APPLIANCES:** Appliances used in a commercial food service establishment for heating or cooking food and which produce grease vapors, steam, fumes, smoke or odors that are required to be removed through a local exhaust ventilation system. Such appliances include deep fat fryers; upright broilers; griddles; broilers; steam-jacketed kettles; hot-top ranges; under-fired broilers (char broilers); ovens; barbecues; rotisseries; and similar appliances. For the purpose of this definition, a food service establishment shall include any building or a portion thereof used for the preparation and serving of food.

## SECTION 507- COMMERCIAL KITCHEN HOODS

**507.1 General** Commercial kitchen exhaust hoods shall comply with the requirements of this section. Hoods shall be Type I or Type II and shall be

designed to capture and confine cooking vapors and residues.

Exceptions:

1. Factory-built commercial exhaust hoods which are tested in accordance with UL 710, listed, labeled and installed in accordance with Section 304.1 shall not be required to comply with Sections 507.1.5, 507.2.3, 507.2.5, 507.2.8, 507.3.1, 507.4 and 507.5
2. Factory-built commercial cooking re-circulating systems which are tested in accordance with UL 197, listed, labeled and installed in accordance with Section 304.1 shall not be required to comply with Sections 507.4, 507.5, 507.7, 507.12, 507.13, 507.14 and 507.15.
3. Net exhaust volumes for hoods shall be permitted to be reduced during no-load cooking conditions, where engineered or listed multi-speed or variable-speed controls automatically operate the exhaust system to maintain capture and removal of cooking effluents as required by this section.

**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.

507.2.1 Type I hoods. Type I hoods shall be installed where cooking appliances produce grease or smoke, such as occurs with griddles, fryers, broilers, ovens, ranges and wok ranges.

507.2.2 Type II hoods. Type II hoods shall be installed where cooking or dishwashing appliances produce heat or steam and do not produce grease or smoke, such as steamers, kettles, pasta cookers and dishwashing machines.

Exceptions:

1. Under-counter-type commercial dishwashing machines.
2. A Type II hood is not required for dishwashers and pot washers that are provided with heat and water vapor exhaust systems that are supplied by the appliance manufacturer and are installed in accordance with the manufacturer's instructions.

507.2.3 Domestic cooking appliances used for commercial purposes. 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, 507.2.1 and 507.2.2.

507.2.4 Solid fuel. Type I hoods for use over solid fuel-burning cooking appliances shall discharge to an exhaust system that is independent of other exhaust systems.

## **SECTION 509-FIRE SUPPRESSION SYSTEMS**

**509.1 Where required.** Commercial food heat-processing appliances required by Section 507.2.1 to have a Type I hood shall be provided with an approved automatic fire suppression system complying with the International Building Code and the International Fire Code.