

Cooking Operations Policies and Procedures

Fire and Life-Safety Group (FLS)

Introduction

This document was prepared to list some but not all of the requirements based on the latest edition of adopted codes in 2011. Please ensure that all the requirements of applicable codes at the time of installation are verified and implemented.

**Please note that in order to proceed with any cooking operations on campus, application and approval by campus authorities is required. Also note that the Fire- and Life-Safety Group (FLS) comments and requirements are limited to fire- and Life-safety issues. The applicant is required to obtain all other necessary approvals for preparation and/or sale of food prior to proceeding. Contact points include but are not limited to: Campus Police (CUPD), Department of Environmental Health and Safety (EH&S), Facilities Management Director of Plant Services, and the Building Proctor. Applicants are responsible for full compliance with the requirements listed below.

The following was prepared by FLS and is based on the following code sections: the 2009 edition of the *Life Safety Code* (NFPA-101), the 2008 edition of the *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations* (NFPA-96), the 2009 edition of the *Fire Code* (NFPA-1), the 2009 edition of the *National Fuel Gas Code* (NFPA-54), the 2007 edition of the *Standard for Portable Fire Extinguishers Code* (NFPA-10), the 2009 edition of the *International Fire Code* (IFC), and the recommendations of FLS.

General Requirements for Food Service Operations

- When using electric devices, contact the Campus electrician at 303-492-8754 or 303-492-5522 to ensure that the available outlets are rated for the equipment wattage.
- All devices in connection with the preparation of food are to be installed and operated to avoid hazard to the safety of occupants. (NFPA-1, 20.1.4.1.1)
- All devices in connection with the preparation of food are to be of an approved type and are to be installed in an approved manner. (NFPA-1, 20.1.4.1.2)
- Cooking equipment is to be approved by a testing laboratory or by test data acceptable to the authority having jurisdiction. (NFPA-96, 12.1.1)
- All listed appliances are to be installed in accordance with the terms of their listings and the manufacturer's instructions. (NFPA-54, 9.20.1)
- Unlisted outdoor cooking appliances are to be installed outdoors with clearances to combustible materials of not less than 36 inches at the sides and back and not less than 48

inches at the front. In no case is the appliance to be located under overhead combustible construction. (NFPA-54, 9.20.2)

- Cooking appliances requiring fire protection are not to be moved, modified, or rearranged without prior re-evaluation of the fire-extinguishing system by the system installer or servicing agent, unless otherwise allowed by the design of the fire-extinguishing system. (NFPA-96, 12.1.2.2)
- Food preparation facilities are to be protected in accordance with Section 9.2.3 of NFPA-101 and are not required to have openings protected between food preparation areas and dining areas. (NFPA-101, 12.7.1.3)
- Commercial cooking equipment is to be in accordance with NFPA-96 unless such installations are approved existing installations, which are permitted to be continued in service. (NFPA-101, 9.2.3)
- Cooking equipment used in processes producing smoke or grease-laden vapors is to be equipped with an exhaust system that complies with all the equipment and performance requirements of NFPA-96. (NFPA-96, 4.1.1)
- The following equipment is to be kept in good working condition: (NFPA-96, 4.1.3)
 1. Cooking equipment
 2. Hoods
 3. Ducts (if applicable)
 4. Fans
 5. Fire-extinguishing systems
- All airflows are to be maintained. (NFPA-96, 4.1.4)
- Maintenance and repairs are to be performed on all components with the requirements of NFPA-96, Chapter 14. (NFPA-96, 4.1.5)
- All interior surfaces of the exhaust system are to be accessible for cleaning and inspection purposes. (NFPA-96, 4.1.8)
- Cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, tents, or any form of roofed enclosure, is to comply with NFPA-96 unless all or part of the installation is exempted by the authority having jurisdiction. (NFPA-96, 4.1.9)
- Extension cords and flexible cords are not to be a substitute for permanent wiring. Extension cords are to be used only with portable devices. (IFC, 605.5)
- Exhaust systems are to operate whenever cooking equipment is turned on. (NFPA-96, 11.1.1)

- Contact the Campus Fire Alarm Shop at 303-492-0633 or 303-492-5522 and ensure that they inspect the area for detectors that may be subject to nuisance alarms and obtain their approval prior to proceeding.
- Only thermostatically controlled heaters set at no more than 160 degrees Fahrenheit may be used for warming of previously prepared food.
- Persons other than the cooking- and fire-watching personnel should not get closer than 3 feet to the food warming/preparations area.

Portable Cooking Equipment

- Equipment fueled by small heat sources that can be readily extinguished by water, such as candles or alcohol-burning equipment, including solid alcohol, is permitted, provided that precautions, satisfactory to the authority having jurisdiction, are taken to prevent ignition of any combustible materials. (NFPA-101, 12.7.1.4 (1))
- Candles are permitted to be used on tables used for food service where securely supported on substantial noncombustible bases located to avoid danger of ignition of combustible materials and only where approved by the authority having jurisdiction. (NFPA-101, 12.7.1.4 (2))
- Candle flames are to be protected. (NFPA-101, 12.7.1.4 (3))
- "Flaming sword" or other equipment involving open flames and flamed dishes, such as cherries jubilee or crêpe suzette, are permitted, provided that precautions subject to the approval of the authority having jurisdiction are taken. (NFPA-101, 12.7.1.4 (4))
- Listed and approved LP-Gas commercial food service appliances are permitted when in accordance with the Liquefied Petroleum Gas Code, NFPA-58. (NFPA-101, 12.7.1.4 (5))

Outdoor Cooking and Serving

The fire- and life-safety requirements applicable to any outdoor cooking are as follows.

- If using electric devices, contact the Campus electrician at 303-492-8754 or 303-492-4042 to ensure that the available outlets are rated for the equipment wattage. For Housing facilities, contact Housing Fire Alarm Shop.
- Extension cords and flexible cords are not to be a substitute for permanent wiring. Extension cords are to be used only with portable devices. Extension cords are prohibited unless the campus electrician approves the type and location. (IFC, 605.5)

- Class K fire extinguishers are to be provided for hazards where there is a potential for fires involving combustible cooking media, i.e. vegetable or animal oils and fats. (NFPA-10, 5.7.1)
- Concession stands utilized for cooking are to have a minimum of 10 feet of clearance on two sides. (NFPA-1, 10.16.8)
- A firewatcher trained in the use of fire extinguishers should be in the immediate area from 30 minutes before start of cooking through 30 minutes after the cooking operation is finished.
- Persons other than the cooking- and fire-watching personnel should not get closer than 3 feet to the food warming/preparation area.
- Cooking equipment and any halogen lights are to be 15 feet or more from any building, combustible material, trees, bushes and all other vegetation.
- Cooking and serving stations are to be located outside the path of exit from buildings and normal pedestrian traffic paths.

Requirements for Fire Extinguishing Systems in Cooking Operations

- Cooking equipment that produces grease-laden vapors and that might be a source of ignition of grease in the hood, grease removal device, or duct is to be protected by fire-extinguishing systems. (NFPA-96, 10.1.2)
- Fire-extinguishing equipment is to include both automatic fire-extinguishing systems as primary protection and portable fire extinguishers as secondary backup. (NFPA-96, 10.2.1)
- Cooking equipment is not to be operated while its fire-extinguishing system or exhaust system is non-operational or otherwise impaired. (NFPA-96, 11.1.6)
- Instructions for manually operating the fire-extinguishing systems are to be posted conspicuously in the kitchen and are to be reviewed with employees by the management. (NFPA-96, 11.1.4)
- Fire extinguishers are to be installed in kitchen cooking areas in accordance with NFPA-10, and are to be specifically listed for such use. (NFPA-96, 10.10.1)
- Extinguishers are to use agents that saponify upon contact with hot grease such as sodium bicarbonate and potassium bicarbonate dry chemical and potassium carbonate solutions. (NFPA-96, 10.10.2)
- Class B gas-type portable fire extinguishers are not permitted in kitchen cooking areas. (NFPA-96, 10.10.3)

- Class K fire extinguishers are to be provided for hazards where there is a potential for fires involving combustible cooking media, i.e. vegetable or animal oils and fats. (NFPA-10, 5.7.1)

Requirements for Testing, Inspection, and Maintenance Frequencies for Fire Extinguishing Systems in Cooking Operations

- An inspection and servicing of the fire extinguishing system and listed exhaust hoods containing a constant or actuated water system are to be made at least every 6 months by properly trained and qualified persons. This includes the actuating mechanism such as manual pulls and automatic detectors. (NFPA-96, 11.2.1)
- In addition to these requirements, the specific requirements of other applicable NFPA standards are to be followed. For example detectors in the area are subject to the requirements of NFPA-72 and fire sprinklers in the area are subject to the testing and maintenance requirements of NFPA-25 or NFPA-1. (NFPA-96, 11.2.3)

Other Issues: Exhaust System Inspections and Cleaning

- Please see section 11.3 of NFPA-96 and ensure compliance with its requirements. FLS believes that based on Table 11.3 of NFPA-96, the exhaust systems for cooking systems of the Housing Department are to be inspected at least quarterly.
- Please ensure compliance with NFPA-96 for exhaust cleaning, e.g., grease in the exhaust system, requirements.
- Sprinklers and automatic spray nozzles for protecting commercial-type cooking equipment and ventilating systems are to be replaced annually. (NFPA-1, 13.3.3.9)

***This review does not contain all of the necessary code requirements for cooking operations. Please consult the NFPA codes or contact our office for further requirements. In addition, the specific requirements of other applicable NFPA standard are to be followed. For example detectors in the area are subject to the requirements of NFPA-72 and fire sprinklers in the area are subject to the testing and maintenance requirements of NFPA-25, NFPA-13 and the IFC. Copies of all NFPA codes are available at the FLS office.*