### **NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations**

# **Procedures for the Use, Inspection, Testing, and Maintenance of Equipment**

#### **12.1 Operating Procedures**

#### 12.1.1

Exhaust systems shall be operated whenever cooking equipment is turned on.

#### 12.1.2

Filter-equipped exhaust systems shall not be operated with filters removed.

#### 12.1.3

Openings provided for replacing air exhausted through ventilating equipment shall not be restricted by covers, dampers, or any other means that would reduce the operating efficiency of the exhaust system.

#### 12.1.4

Instructions shall be provided to new employees on hiring and to all employees annually on the use of portable fire extinguishers and the manual actuation of the fireextinguishing system.

#### 12.1.4.1

Responsibility for compliance with 12.1.4 shall be that of management of the commercial cooking operation.

#### 12.1.4.2

Records of compliance with 12.1.4 shall be maintained and shall be available to the authority having jurisdiction.

#### 12.1.4.3

Instructions for manually operating the fire-extinguishing system shall be posted conspicuously in the kitchen and shall be reviewed with employees by the management.

#### 12.1.5

Listed exhaust hoods shall be operated in accordance with the terms of their listings and the manufacturer's instructions.

#### 12.1.6

Cooking equipment shall not be operated while its fire-extinguishing system or exhaust system is nonoperational or impaired.

#### 12.1.6.1

Where the fire-extinguishing system or exhaust system is nonoperational or impaired, the system shall be tagged as noncompliant, the system owner or the owner's representative shall be notified in writing of the impairment, and, where required, the authority having jurisdiction shall be notified.

#### 12.1.7

Secondary filtration and pollution control equipment shall be operated in accordance with the terms of its listing and the manufacturer's recommendations.

#### 12.1.7.1

The requirement of 12.1.7 shall not apply to mobile and temporary cooking operations.

#### 12.1.8

Inspection and maintenance of "other equipment" as allowed in 9.3.1 shall be conducted by properly trained and qualified persons at a frequency determined by the manufacturer's instructions or the equipment listing.

## 12.2 Inspection, Testing, and Maintenance of Fire-Extinguishing Systems

#### 12.2.1

Maintenance of the fire-extinguishing systems and listed exhaust hoods containing a constant or fire-activated water system that is listed to extinguish a fire in the grease removal devices, hood exhaust plenums, and exhaust ducts shall be made by properly trained, qualified, and certified person(s) acceptable to the authority having jurisdiction at least every 6 months.

#### 12.2.2

All actuation and control components, including remote manual pull stations, mechanical and electrical devices, detectors, and actuators, shall be tested for proper operation during the inspection in accordance with the manufacturer's procedures.

#### 12.2.3

The specific inspection and maintenance requirements of the extinguishing system standards as well as the applicable installation and maintenance manuals for the listed system and service bulletins shall be followed.

#### 12.2.4

Fusible links of the metal alloy type and automatic sprinklers of the metal alloy type shall be replaced at least semiannually.

#### 12.2.5

Replacement fixed temperature-sensing elements shall be listed and shall be the same temperature ratings as the ones being replaced unless temperature readings dictate a need for a change. [17A:8.3.4.1]

#### 12.2.6

The year of manufacture and the date of installation of the fusible links shall be marked on the system inspection tag.

#### 12.2.6.1

The tag shall be signed or initialed by the installer.

#### 12.2.6.2

The fusible links shall be destroyed when removed.

#### 12.2.7

Detection devices that are bulb-type automatic sprinklers and fusible links other than the metal alloy type shall be examined and cleaned or replaced annually.

#### 12.2.8

Fixed temperature-sensing elements other than the fusible metal alloy type shall be permitted to remain continuously in service, provided they are inspected and cleaned or replaced if necessary in accordance with the manufacturer's instructions, every 12 months or more frequently to ensure proper operation of the system.

#### 12.2.9

Where required, certificates of inspection and maintenance shall be forwarded to the authority having jurisdiction.

#### 12.2.9.1

Records, including certificates of inspection and maintenance, shall be permitted to be forwarded to or shared with the authority having jurisdiction either by hard copy or electronically.

#### **12.3 Inspection of Fire Dampers**

#### 12.3.1

The requirements in Section 12.3 shall not apply to mobile and temporary cooking operations.

#### 12.3.2

Actuation components for fire dampers shall be inspected for proper operation in accordance with the manufacturer's listed procedures.

#### 12.3.3 Replacement of Fusible Links

#### 12.3.3.1

Fusible links on fire damper assemblies shall be replaced at least semiannually or more frequently as necessary.

#### 12.3.3.2

Replacement shall be made by a certified person acceptable to the authority having jurisdiction.

#### 12.3.4 Documentation Tag

#### 12.3.4.1

The year of manufacture and the date of installation of the fusible links shall be documented.

#### 12.3.4.2

The tag shall be signed or initialed by the installer.

#### **12.4 Inspection for Grease Buildup**

The entire exhaust system shall be inspected for grease buildup by a properly trained, qualified, and certified person(s) acceptable to the authority having jurisdiction and in accordance with Table 12.4.

#### Table 12.4 Schedule of Inspection for Grease Buildup

Type or Volume of Cooking	Inspection Frequency
Systems serving solid fuel cooking operations	Monthly
Systems serving high-volume cooking operations*	Quarterly
Systems serving moderate-volume cooking operations	Semiannually
Systems serving low-volume cooking operations†	Annually

\*High-volume cooking operations include 24-hour cooking, charbroiling, and wok cooking.

†Low-volume cooking operations include churches, day camps, seasonal businesses, and senior centers.

### 12.5 Inspection, Testing, and Maintenance of Listed Hoods Containing Mechanical, Water Spray, or Ultraviolet Devices

Listed hoods containing mechanical or fire-actuated dampers, internal washing components, or other mechanically operated devices shall be inspected and tested by properly trained, qualified, and certified persons every 6 months or at frequencies recommended by the manufacturer in accordance with their listings.

#### 12.6 Cleaning of Exhaust Systems

#### 12.6.1

If, upon inspection, the exhaust system is found to be contaminated with deposits from grease-laden vapors, the contaminated portions of the exhaust system shall be cleaned by a properly trained, qualified, and certified person(s) acceptable to the authority having jurisdiction.

#### 12.6.1.1

A measurement system of deposition shall be established to trigger a need to clean when the exhaust system is inspected at the frequencies in Table 12.4.

#### 12.6.1.1.1

Hoods, grease removal devices, fans, ducts, and other appurtenances shall be cleaned to remove combustible contaminants to a maximum of 0.002 in. (50  $\mu$ m).

#### 12.6.1.1.2

A grease depth gauge comb as shown in Figure 12.6.1.1.2 shall be placed upon the surface to measure grease depth.



Figure 12.6.1.1.2 Depth Gauge Comb.

#### 12.6.1.1.3

Where a measured depth of 0.078 in. (2000  $\mu$ m) is observed, the surfaces shall be cleaned in accordance with 12.6.1.

#### 12.6.1.1.4

Where a measured depth of 0.125 in. (3175  $\mu$ m) is observed in a fan housing, the surfaces shall be cleaned in accordance with 12.6.1.

#### 12.6.2

Hoods, grease removal devices, fans, ducts, and other appurtenances shall be cleaned to remove combustible contaminants prior to surfaces becoming heavily contaminated with grease or oily sludge.

#### 12.6.3

At the start of the cleaning process, electrical switches that could be activated accidentally shall be locked out.

#### 12.6.4

Components of the fire suppression system shall not be rendered inoperable during the cleaning process.

#### 12.6.5

Fire-extinguishing systems shall be permitted to be rendered inoperable during the cleaning process where serviced by properly trained and qualified persons.

#### 12.6.6

Flammable solvents or other flammable cleaning aids shall not be used.

#### 12.6.7

Cleaning chemicals shall not be applied on fusible links or other detection devices of the automatic extinguishing system.

#### 12.6.8

After the exhaust system is cleaned, it shall not be coated with powder or other substance.

#### 12.6.9

When cleaning procedures are completed, all access panels (doors) and cover plates shall be restored to their normal operational condition.

#### 12.6.10

When an access panel is removed, a service company label or tag preprinted with the name of the company and giving the date of inspection or cleaning shall be affixed near the affected access panels.

#### 12.6.11

Dampers and diffusers shall be positioned for proper airflow.

#### 12.6.12

When cleaning procedures are completed, all electrical switches and system components shall be returned to an operable state.

#### 12.6.13

After an exhaust system is inspected or cleaned, an adhesive label shall be securely attached to the hood.

#### 12.6.13.1

The label required by 12.6.13 shall provide a record of the following information:

- 1. Date service was performed indicated by a perforation
- 2. Name of person performing the work
- 3. Name, address, and phone number of service provider

#### 12.6.13.2

The label required by 12.6.13 shall remain affixed until the next inspection or cleaning event.

#### 12.6.14

After an inspection for grease buildup is complete, a written report shall be provided to the system owner or owner's agent (see 4.1.5) within 2 weeks.

#### 12.6.14.1

The report required by 12.6.14 shall provide a record of the following information:

- 1. Areas in need of cleaning where grease is found to exceed the limits specified in 12.6.1
- 2. Areas that are inaccessible and were not inspected
- 3. Areas that are accessible but were not inspected
- 4. Location(s) of duct access panel(s)
- 5. Location(s) of visible leakage(s) from ductwork
- 6. Location(s) of leaking access panel(s)

#### 12.6.15

After cleaning is complete, a written report shall be provided to the system owner or owner's agent (see 4.1.5) within 2 weeks.

#### 12.6.15.1

The report required by 12.6.15 shall provide a record of the following information:

- 1. Date cleaning was performed
- 2. Name of person who performed the cleaning
- 3. Name, address, and phone number of service provider

#### 12.6.15.2

The report required by 12.6.15 shall detail the following information:

- 1. Areas that are inaccessible and were not cleaned
- 2. Areas that are accessible but were not cleaned
- 3. Location(s) of duct access panel(s)
- 4. Location(s) of visible leakage(s) from ductwork
- 5. Location(s) of leaking access panel(s)

#### 12.6.16

Where required, the reports required by 12.6.14 and 12.6.15 shall be submitted to the authority having jurisdiction.

#### 12.6.17

Metal containers used to collect grease drippings shall be inspected or emptied at least weekly.

#### 12.6.18

Grease removal devices that are broken, distorted, or missing components shall be replaced.

#### **12.7 Cooking Equipment Maintenance**

#### 12.7.1

Inspection and servicing of the cooking equipment shall be made at least annually by properly trained and qualified persons.

#### 12.7.2

Cooking equipment that collects grease below the surface, behind the equipment, or in cooking equipment flue gas exhaust, such as griddles, deep-fat fryers, or charbroilers, shall be inspected and, if found with grease accumulation, cleaned by a properly trained, qualified, and certified person(s) acceptable to the authority having jurisdiction.

#### 4.1.5 Responsibility

#### 4.1.5.1

The responsibility for inspection, testing, maintenance, and cleanliness of the ventilation control, fire protection, and cooking appliances of the commercial cooking operations shall be that of the equipment owner.

#### 4.1.5.2

Where the equipment owner is not the commercial cooking operator, the equipment owner shall be permitted to delegate the authority and responsibility for inspection, testing, maintenance, and cleanliness of the ventilation control, fire protection, and cooking appliances to the commercial cooking operator, management firm, or managing individual through specific provisions in the lease, written use agreement, or management contract.