

NFPA 96 Fire Code Guide

What is NFPA 96?

NFPA 96 is a set of codes and standards for ventilation control and fire protection of commercial cooking operations by the National Fire Protection Association.

These are the standards that fire marshals follow and commercial cooking operations are required to adhere to.

The scope of NFPA 96 states:

1.1.1 The minimum fire safety requirements (preventative and operative) related to the design, installation, operation, inspection, and maintenance of all public and private cooking operations.

1.1.2 This standard shall apply to residential cooking equipment used for commercial cooking operations

1.1.3 This standard shall not apply to cooking equipment located in a single dwelling unit

Responsibility

NFPA 96 Fire Code 4.1.5 states:

"The responsibility for inspection, maintenance, and cleanliness of the ventilation control and fire protection of the commercial cooking operations shall ultimately be that of the owner of the system, provided that this responsibility has not been transferred in written form to a management company, tenant, or other party."

NFPA 96 Fire Codes for Rooftop Grease Containment

7.8.2 Rooftop Terminations

7.8.2.1 Rooftop termination shall be arranged with or provided with the following:

(4) The ability to drain grease out of any traps or low points formed in the fan or duct near the termination of the system into a collection container that is noncombustible, closed, rainproof, and structurally sound for the service to which it is applied and that will not sustain combustion

(5) A grease collection device that is applied to exhaust systems that does not inhibit the performance of any fan

[6] Listed grease collection systems that meet the requirements of 7.8.2.1(4) and 7.8.2.1(5)

8.1 Exhaust Fans for Commercial Cooking Equipment

8.1.1.3 Upblast fans shall have a drain directed to a readily accessible and visible grease receptacle not to exceed 3.8 L (1 gal).

NFPA 96 Fire Codes for Electrical Wiring & Fan Hinges

7.8.2.1 Rooftop termination shall be arranged with or provided with the following:

(8) A hinged upblast fan supplied with flexible weatherproof electrical cable and service hold-open retainer to permit inspection and cleaning that is listed for commercial cooking equipment...

8.1 Exhaust Fans for Commercial Cooking Equipment

8.1.1.1 - Approved upblast fans with motors surrounded by the airstream shall be hinged, supplied with flexible weatherproof electrical cable and service hold-open retainers, and listed for this use

9.2.1 - Wiring systems of any type shall not be installed in ducts

NFPA 96 Fire Codes for Duct Access & Access Panels

4.1.8 - All interior surfaces of the exhaust system shall be accessible for cleaning and inspection purposes

5.1.2 - All seams, joints, and penetrations of the hood enclosure that direct and capture grease-laden vapors and exhaust gases shall have a liquid tight continuous external weld to the hood's lower outermost perimeter

7.3.1 - Openings shall be provided at the sides or at the top of the duct, whichever is more accessible, and at a change of direction

7.4.1.1 - On horizontal ducts, at least one 508 mm x 508 mm (20 in. x 20 in.) opening shall be provided for personnel entry

7.4.1.2 - Where an opening of this size is not possible, openings large enough to permit thorough cleaning shall be provided at 3.7 m (12 ft) intervals

7.4.1.3 - If not easily accessible from a 3 m (10 ft) stepladder, openings on horizontal grease duct systems shall be provided with safe access and a work platform

7.4.2.2 - Where personnel entry is not possible, adequate access for cleaning shall be provided on each floor

7.5.2.1 - all seams, joints, penetrations, and duct-to-hood collar connections shall have a liquid tight continuous external weld.

NFPA 96 Fire Codes for Fan Access Panel

8.1.5.3.1- Upblast fans shall be supplied with an access opening of a minimum 76 mm by 127 mm (3 in. by 5 in.) or a circular diameter of 101 mm (4 in.) on the curvature of the outer fan housing to allow for cleaning and inspection of the fan blades

8.1.5.3.2 - On existing upblast fans where sufficient access is not available to allow for the removal of grease contamination, an approved hinge mechanism or access panel shall be installed

NFPA 96 Fire Codes for Hood Inspection & Cleaning Frequency

11.4 – Inspection for Grease Buildup. The entire exhaust system shall be inspected for grease buildup by a properly trained, qualified, and certified company or person(s) acceptable to the authority having jurisdiction and in accordance with Table 11.4

Table 11.4 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, such as 24-hour cooking, charbroiling, or wok cooking	Quarterly
Systems serving low-volume cooking operations	Semiannually
Systems serving low-volume cooking operations, such as churches, day camps, seasonal businesses, or senior lefts	Annually

11.6.1 - Upon inspection, if 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 company or person(s) acceptable to the authority having jurisdiction.

11.6.2 - 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.

NFPA 96 Fire Codes for Hood Grease Filters

6.1 Grease Removal Devices

6.1.1 – Listed grease filters, listed baffles, or other listed grease removal devices for use with commercial cooking equipment shall be provided

6.1.2 – Listed grease filters and grease removal devices that are removable but not an integral component of a specific listed exhaust hood shall be listed in accordance with UL 1046

6.1.3 – Mesh filters shall not be used unless evaluated as an integral part of a listed exhaust hood or listed in conjunction with a primary filter in accordance with UL 1046

6.2.3.1 – Grease filters shall be listed and constructed of steel or listed equivalent material.

6.2.3.2 – Grease filters shall be of rigid construction that will not distort or crush under normal operation, handling, and cleaning conditions

6.2.3.3 – Grease filters shall be arranged so that all exhaust air passes through the grease filters.

6.2.3.4 – Grease filters shall be easily accessible and removable for cleaning.

6.2.3.5 – Grease filters shall be installed at an angle not less than 45 degrees from the horizontal

NFPA 96 Fire Codes for Solid Fuel Cooking Systems & Spark Arrestor Filters

14.5.1 – Grease removal devices shall be constructed of steel or stainless steel or be approved for solid fuel cooking

14.5.2 – If airborne sparks and embers can be generated by the solid fuel cooking operation, spark arrestor devices shall be used prior to using the grease removal device to minimize the entrance of the sparks and embers into the grease removal device and into the hood and duct system.

14.5.3 – Filters shall be a minimum of 1.2 m (4 ft) above the appliance cooking surface