

## STANDARD INFORMATION

**Standard:** NFPA 96

**Standard ID:**

Ventilation Control and Fire Protection of Commercial Cooking Operations [NFPA 96:2020 Ed.2021]

**Previous Standard ID:**

Ventilation Control and Fire Protection of Commercial Cooking Operations [NFPA 96:2016 Ed.2017+T1]

Ventilation Control and Fire Protection of Commercial Cooking Operations [NFPA 96:2013 Ed.2014]

Ventilation Control and Fire Protection of Commercial Cooking Operations [NFPA 96:2010 Ed.2011]

Ventilation Control and Fire Protection of Commercial Cooking Operations [NFPA 96:2007 Ed.2008]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **June 1, 2022**

## IMPACT, OVERVIEW, AND ACTION REQUIRED

**Impact Statement:** Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard.

### Overview of Changes:

#### 2008-2011

- Additional requirements for equipment installed in hoods and ducts
- Added requirements for persons conducting inspection and testing of listed hoods to be certified

#### 2011-2014

- New requirements for the use of solid fuel as a flavor enhancer
- Added a listing requirement for fans used in exhaust systems

#### 2014-2017

- Addition of requirements for devices installed in a duct
- Addition of requirements for simultaneous operation

#### 2017-2021

- Additional requirements for drawings
- New section for Fire-Extinguishing Equipment for Mobile and Temporary Cooking Operations

Specific details of new/revise requirements are found in table below.

***Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.***



## STANDARD INFORMATION

| CLAUSE     | VERDICT | COMMENT   |
|------------|---------|---|
|            |         | <i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined-out</del> below.</i>   |
|            |         | <b>The following changes reflect the 2008 to 2011 edition.</b>  |
| 7          | Info    | <b>Exhaust Duct Systems</b>   |
| 7.2        | Info    | <b>Clearance</b>  |
|            |         | <b><i>New clause added;</i></b>   |
| 7.2.1      |         | Where single-walled ductwork penetrates a non-firerated roof assembly, the penetration point shall be of limited-combustible or noncombustible construction unless a field-applied grease duct enclosure is installed to the top of the roof curb or the clearances of Section 4.2 are maintained.                          |
| 9          | Info    | <b>Auxiliary Equipment</b>  |
| 9.3        | Info    | <b>Other Equipment</b>  |
|            |         | <b><i>New clause added;</i></b>   |
| 9.3.1.2    |         | Equipment listed for reduced clearances shall be listed in accordance with ANSI/UL 1978.  |
|            |         | <b><i>New clause added;</i></b>   |
| 9.3.1.3    |         | Equipment shall have space provided to all access panels or doors for the safe removal and servicing of control devices, such as filters, electrostatic precipitator cells, and odor control media beds, and for cleaning of the equipment housing.   |
|            |         | <b><i>New clause added;</i></b>   |
| 9.3.6      |         | Equipment commissioning report(s) shall be provided for other equipment installed.  |
| 10         | Info    | <b>Fire-Extinguishing Equipment</b>   |
| 10.2       | Info    | <b>Types of Equipment</b>   |
| 10.2.8     | Info    | <b>Fixed Baffle Hoods with Water Wash</b>   |
|            |         | <b><i>New clause added;</i></b>   |
| 10.2.8.7.1 |         | Where the automatic fire extinguishing system in accordance with NFPA 17A provides protection for the hood and duct in a fixed baffle hood containing a water-wash system, the water-wash system shall be made inoperable or delayed for a minimum of 60 seconds upon operation of the automatic fire-extinguishing system. |



| CLAUSE  | VERDICT | COMMENT  |
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|   |         | <b><i>New clause added;</i></b>  |
| 10.2.8.8  |         | Grease removal devices, hood exhaust plenums, and exhaust ducts on fixed baffle hoods with water wash shall be permitted to be protected by a sprinkler system with an individual control valve if the design of the hood prevents the water from reaching the cooking appliances.                     |
| 10.10   | Info    | <b>Portable Fire Extinguishers</b>   |
|   |         | <b><i>New clause added;</i></b>  |
| 10.10.4   |         | Portable fire extinguishers shall be maintained in accordance with NFPA 10.  |
| 11  | info    | <b>Procedures for the Use, Inspection, Testing, and Maintenance of Equipment</b>   |
| 11.1  | Info    | <b>Operating Procedures</b>  |
|   |         | <b><i>New clause added;</i></b>  |
| 11.1.6.1  |         | Where the fire-extinguishing system or exhaust system is nonoperational or impaired, the systems shall be tagged as noncompliant, and the owner or owner's representative  |
| <b>The following changes reflect the 20011 to 2014 edition.</b> |         |  |
| 4   | Info    | <b>General Requirements</b>  |
| 4.2   | Info    | <b>Clearance</b>   |
|   |         | <b><i>New clause added;</i></b>  |
| 4.2.3.3   |         | Where a clearance reduction system consisting of a listed and labeled field-applied grease duct enclosure material, system, product, or method of construction specifically evaluated for such purpose in accordance with ASTM E 2336, the required clearance shall be in accordance with the listing. |
|   |         | <b><i>New section added;</i></b>   |
| 4.8   |         | <b>Materials</b><br><br>This section contains requirements for noncombustible and limited-combustible material. See standard for details.  |
| 7   | Info    | <b>Exhaust Duct Systems</b>  |
| 7.1   | Info    | <b>General</b>   |
|   |         | <b><i>New clause added;</i></b>  |
| 7.1.4   |         | All ducts shall be installed with a minimum 2 percent slope on horizontal runs up to 22.86m(75 ft) and a minimum 8 percent slope on horizontal runs greater than 22.86 m (75 ft).  |



| CLAUSE    | VERDICT | COMMENT   |
|-----------|---------|---|
|           |         | <b><i>New clause added;</i></b>   |
| 7.1.4.1   |         | Factory-built grease ducts shall be permitted to be installed in accordance with the listing and the manufacturer's instructions.   |
|           |         | <b><i>New clause added;</i></b>   |
| 7.1.4.2   |         | All horizontal ducts shall be provided with access in accordance with 7.4.1.  |
|           |         | <b><i>New clause added;</i></b>   |
| 7.1.4.3   |         | Drains shall be provided at low points in horizontal ducts.   |
|           |         | <b><i>New clause added;</i></b>   |
| 7.1.4.3.1 |         | Where provided, drains shall be continuously welded to the exhaust duct or listed grease duct drains, in accordance with the terms of the listing and the manufacturer's installation manual. |
| 7.5       | Info    | <b>Other Grease Ducts</b>   |
| 7.5.2     | Info    | <b>Installation</b>   |
|           |         | <b><i>New clause added;</i></b>   |
| 7.5.2.1.1 |         | Factory-built grease ducts listed in accordance with ANSI/UL 1978 shall be permitted to incorporate nonwelded joint construction in accordance with their listings.                           |
|           |         | <b><i>New clause added;</i></b>   |
| 7.5.2.1.2 |         | Prior to the use of or concealment of any portion of a grease duct system, a leakage test shall be performed to determine that all welded joints and seams are liquidtight.                   |
| 8         | Info    | <b>Air Movement</b>   |
| 8.2       | Info    | <b>Airflow</b>  |
| 8.2.3     | Info    | <b>Exhaust Fan Operation</b>  |
|           |         | <b><i>New clause added;</i></b>   |
| 8.2.3.3   |         | The exhaust fan shall be provided with a means so that the fan is activated when any appliance under the hood is turned on.   |



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| 10         | Info    | <b>Fire-Extinguishing Equipment</b>   |
| 10.2       | Info    | <b>Types of Equipment</b>   |
|            |         | <del>In existing systems, when changes in the cooking media, positioning, or replacement of cooking equipment occur, the fire-extinguishing system shall be made to comply with 10.2.3.</del>   |
| 10.2.3.1   |         | <u>In existing dry or wet chemical systems not in compliance with ANSI/UL 300, the fire-extinguishing system shall be made to comply with 10.2.3 when any of the following occurs:</u>  |
|            |         | <u>(1) The cooking medium is changed from animal oils and fats to vegetable oils.</u>   |
|            |         | <u>(2) The positioning of the cooking equipment is changed.</u>   |
|            |         | <u>(3) Cooking equipment is replaced.</u>   |
|            |         | <u>(4) The equipment is no longer supported by the manufacturer.</u>  |
| 10.2.9     | Info    | <b>Water-Based Fire-Extinguishing System</b>  |
|            |         | <i><b>New clause added;</b></i>   |
| 10.2.9.2   |         | Where the water supply is from a dedicated fire protection water supply in a building with one or more fire sprinkler systems, separate indicating control valves and drains shall be provided and arranged so that the hood system and sprinkler systems can be controlled individually. |
| 10.3       | Info    | <b>Simultaneous Operation</b>   |
|            |         | <i><b>New clause added;</b></i>   |
| 10.3.2.1   |         | Where an automatic sprinkler system is used in conjunction with a water-based fire-extinguishing system served by the same water supply, hydraulic calculations shall consider both systems operating simultaneously.   |
| 12         | Info    | <b>Minimum Safety Requirements for Cooking Equipment</b>  |
| 12.1       | Info    | <b>Cooking Equipment</b>  |
| 12.1.2     | Info    | <b>Installation</b>   |
|            |         | <i><b>New clause added;</b></i>   |
| 12.1.2.1.1 |         | Solid fuel used for flavoring within a gas-operated appliance shall be in a solid fuel holder (smoker box) that is listed with the equipment.   |
|            |         | <i><b>New clause added;</b></i>   |
| 12.1.2.2.1 |         | A solid fuel holder shall not be added to an existing appliance until the fire-extinguishing system has been evaluated by the fire-extinguishing system service provider.   |



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| <b>The following changes reflect the 2014 to 2017 edition.</b> |         |   |
| 9  | Info    | <b>Auxiliary Equipment</b>  |
| 9.3  | Info    | <b>Other Equipment</b>  |
|  |         | <i>New clause added;</i>  |
| 9.3.7  |         | If the heat source is non-electric and open flames are used, a carbon monoxide detector shall be installed in both the kitchen and dining areas.  |
| 10   | Info    | <b>Fire-Extinguishing Equipment</b>   |
| 10.1   | Info    | <b>General Requirements</b>   |
|  |         | <i>New clause added;</i>  |
| 10.1.3   |         | Fume incinerators, thermal recovery units, air pollution control devices, or other devices installed in the exhaust duct, shall be protected by an automatic fire-extinguishing system  |
| 10.2   | Info    | <b>Types of Equipment</b>   |
| 10.2.8   | Info    | <b>Hoods with Water Wash</b>  |
|  |         | <i>New clause added;</i>  |
| 10.2.8.5   |         | Where a separate fire-extinguishing system is used for protection of cooking equipment only, a water-wash fire-extinguishing system listed for protection of the grease removal device(s), hood exhaust plenum(s), exhaust duct(s), or combination thereof shall be provided with instructions and appropriate means for electrical interface for simultaneous activation.          |
| 10.3   | Info    | <b>Simultaneous Operation</b>   |
| 10.3.1.1   |         | Hood installed end to end, back to back, or both, or sharing a common ductwork, <u>not exceeding 22.9 m (75 ft) in distance from the farthest hood</u> , and having a grease-producing appliance(s) located under one or more of the hoods, shall be considered a single hazard area requiring  |
|  |         | <i>New clause added;</i>  |
| 10.3.1.1.1   |         | In hoods that are installed end to end, back to back, or both, and that share a common ductwork, the ductwork beyond 22.9 m (75 ft) from the farthest hood shall be protected by an independent fire-extinguishing system with its own detection system or by a fire-extinguishing system that activates simultaneously with the fire-extinguishing system(s) protecting the hoods. |
| 10.5   | Info    | <b>Manual Activation</b>  |
|  |         | <i>New clause added;</i>  |
| 10.5.1   |         | All systems shall have both automatic and manual methods of actuation.  |



| CLAUSE   | VERDICT | COMMENT   |
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| 11.6   | Info    | <b>Cleaning of Exhaust Systems</b>  |
|  |         | <i><b>New section added;</b></i>  |
| 11.6.1   |         | This section contains requirements for cleaning exhaust systems. See standard for details.  |
|  |         | <i><b>New clause added;</b></i>   |
| 11.6.16  |         | Metal containers used to collect grease drippings shall be inspected or emptied at least weekly.  |
| <b>The following changes reflect the 2017 to 2021 edition.</b> |         |   |
| 4  | Info    | <b>General Requirements</b>   |
| 4.6  | Info    | <b>Drawings</b>   |
|  |         | <i><b>New clause added;</b></i>   |
| 4.6.1  |         | Where required, complete drawings and specifications of the exhaust system installation including the hood(s), duct(s), fan(s), and auxiliary equipment shall be prepared by properly trained and qualified persons and submitted to the authority having jurisdiction.   |
|  |         | <i><b>New clause added;</b></i>   |
|  |         | Drawings shall be drawn to an indicated scale or shall be suitably dimensioned and shall be reproducible to show compliance with this standard including the following:   |
| 4.6.2  |         | <ol style="list-style-type: none"> <li>(1) Size and material of the hood(s)</li> <li>(2) Number, type, size, and position of appliances served</li> <li>(3) Size and material of the duct(s)</li> <li>(4) Fan(s) type, size, mounting arrangement, and electrical specifications</li> <li>(5) Type, size, and location of auxiliary equipment, if used</li> <li>(6) Provision for make-up air</li> <li>(7) Airflow calculations</li> <li>(8) Locations and sizes of access openings</li> <li>(9) Method(s) for assuring liquidtight construction</li> <li>(10) Type and quantity of materials for supporting the hood(s), ducts, and auxiliary equipment</li> <li>(11) Size, material, and fire resistance rating of duct enclosures, if any</li> <li>(12) Clearance to combustible and limited combustible materials</li> <li>(13) Clearance reduction methods, if used</li> <li>(14) Listed components and equipment, if used</li> <li>(15) Electrical schematics</li> <li>(16) Operating and maintenance instructions for components and equipment</li> <li>(17) Type and arrangement of the extinguishing system(s), as required by 10.8.1</li> </ol> |



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|          |         | <b><i>New clause added;</i></b>   |
| 4.6.3    |         | Where inspections are required, notice shall be given to the authority having jurisdiction on completion of the installation, or as otherwise directed.   |
|          |         | <b><i>New clause added;</i></b>   |
| 4.6.4    |         | For cooking operations in buildings, a drawing(s) of the exhaust system installation along with copies of operating instructions for subassemblies and components used in the exhaust system, including electrical schematics, shall be kept on the premises and made available on request to the authority having jurisdiction and maintenance persons.  |
|          |         | <b><i>New clause added;</i></b>   |
| 4.6.5    |         | For mobile and temporary cooking operations, drawing(s) of the exhaust system installation along with copies of operating instructions for subassemblies and components used in the exhaust system, including electrical schematics, shall be kept in the mobile and temporary cooking operation unit and made available on request to the authority having jurisdiction and maintenance persons. |
| 7        | Info    | <b>Exhaust Duct Systems</b>   |
| 7.1      | Info    | <b>General</b>  |
|          |         | <b><i>New clause added;</i></b>   |
| 7.1.4    |         | All ducts shall lead directly to the exterior of the mobile unit or temporary cooking operation, so as not to unduly increase any fire hazard.  |
| 10       | Info    | <b>Fire-Extinguishing Equipment</b>   |
| 10.4     | Info    | <b>Fuel and Electric Power Shutoff</b>  |
|          |         | <b><i>New clause added;</i></b>   |
| 10.4.4.1 |         | Where an electrical gas valve is used for shutting off gas to appliances, a manually reset relay shall be used to restore electrical power to the gas valve.  |
| 10.5     | Info    | <b>Manual Actuation</b>   |
|          |         | <b><i>New clause added;</i></b>   |
| 10.5.1.3 |         | Manual actuation devices installed in locations where accidental operation could occur shall be provided with a guard where required by the authority having jurisdiction.  |
|          |         | <b><i>New section added;</i></b>  |
| 11       |         | <b>Fire-Extinguishing Equipment for Mobile and Temporary Cooking Operations</b>   |
|          |         | This section contains requirements for mobile and temporary cooking operations. See standard for details.   |





| CLAUSE     | VERDICT | COMMENT  |
|------------|---------|--|
| 15         | Info    | <b>Downdraft Appliance Ventilation Systems</b>   |
| 15.3       | Info    | <b>Airflow Switch or Transducer</b><br><i>New clause added;</i>  |
| 15.3.3.1   |         | Exhaust systems serving solid fuel cooking equipment in mobile and temporary cooking operations, including gas or electrically operated equipment, shall be separate from all other exhaust systems.<br><i>New sections added;</i> |
| 17.5-17.10 |         | 17.5 Internal Combustion Engine Power Sources<br>17.6 Vehicle-Mounted Generators<br>17.7 LP-Gas Systems<br>17.8 Electrical Wiring<br>17.9 Carbon Monoxide Detectors<br>17.10 Training<br><br>See standard for details.             |