



# Mobile Food Preparation Vehicles Fire Safety

*2020 Fire Code of New York State- Section 319 Mobile Food Preparation Vehicles  
National Fire Protection Association – Chapter 96 - 2017 Edition - Appendix B*

# Course Description

Today, food trucks line city streets, and are a staple at college campuses, carnivals, festivals and fairs.

In 2017, there were estimated to be more than 4,000 food trucks in the U.S., many of which are using liquid propane to power grills and appliances that cook up both casual and sophisticated cuisine.



# Course Description

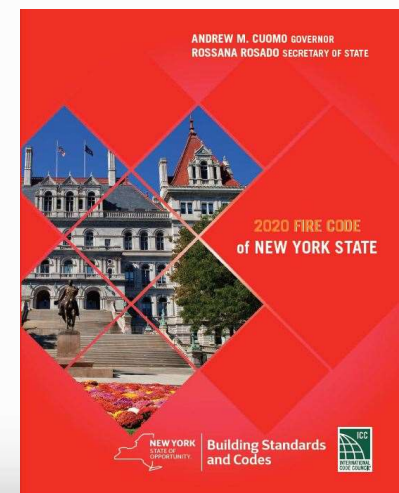
Most major cities have a large number and quite a variety of food trucks. There are even food truck rallies, festivals, and other gatherings where people can enjoy the variety of food offered by food truck vendors.



# Course Objective

Food truck safety is paramount for cities that are allowing them to operate within their limits. The new mobile food preparation vehicles criteria is now available in the 2017 edition of NFPA 96 and 2020 Fire Code of New York State.

Requirements developed as part of the National Fire Codes, assured there will be a reasonable level of safety wherever the food trucks decide to park and serve their customers.



# Mobile Food Preparation Vehicles

**We are not the food truck police.**



**We are there to do a basic fire safety inspection.**

# Mobile Food Truck Phenomenon

Over the last few years, the mobile food truck phenomenon has hit popularity highs, with cities and towns holding weekly food truck meet ups where mobile restaurant owners can showcase their menus to the public.

Food trucks are becoming so popular, so quickly that local governments are working double time to play catch up in order to create and regulate safety protocols for these mobile restaurants.

There are several aspects they need to regulate – food handling and safety guidelines, cleaning guidelines, ventilations guidelines, etc. With all of the equipment required to operate the food truck you run an extremely high risk of fire, and it is imperative that you take preventative measures to prevent these fires from occurring.

# Food trucks are all the rage!

They are a fun, easy, and delicious way to get a quick meal. But, there is a whole other side to food trucks that people do not often talk about – **fire safety**. There have been numerous instances with food trucks combusting and causing harm to both workers and bystanders.



# International Fire Marshals Association

After the 2014 Philadelphia food truck explosion killed a mother and daughter, the International Fire Marshals Association (IFMA) developed a task group to address this issue and submitted public input to NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, and NFPA 1, Fire Code.



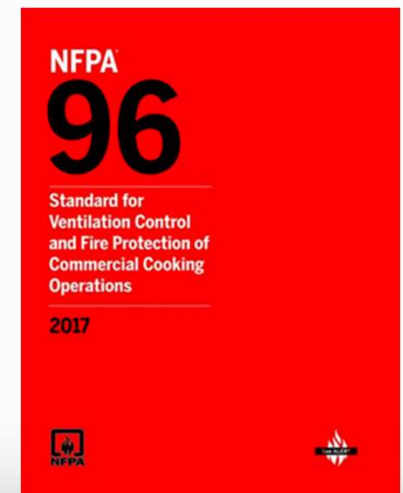
***The “NFPA 1“ reference standard(s) has/have not been adopted by New York State and must be utilized for informational purposes only.***



# International Fire Marshals Association

When the 2017 edition of NFPA 96 was released, this edition now addresses the minimum fire safety requirements for mobile / temporary cooking in new Annex Chapter B.

The purpose of placing the language in a normative annex was to allow for the jurisdictions who do not currently adopt/enforce NFPA 96 to adopt solely this normative annex (without having to adopt the rest of NFPA 96) if that jurisdiction wanted to address mobile / temporary cooking specifically.



# Food Truck History

When most of us think about food trucks, we tend to have an image of an old greasy “roach coach” as we use to call them, burned in the back of our minds.

However, the resurgence of food trucks in recent years is replacing that outdated image with a new picture that illustrates the trend of gourmet food trucks that provide healthy alternatives and fresh fusion cuisine at affordable prices.

As the popularity of food trucks continues to grow, jurisdictions all over the globe are asking themselves how to regulate these kitchens on wheels.



# The question is often asked

“Does the code apply only to buildings and facilities, or does it cover vehicles as well?”

Though the scope text does not specifically mention vehicles, vehicles are intended to be covered by the terms of “... use of... devices...” and “... occupancy of... structures or premises...”

It is clear that the code specifically intends to regulate vehicles because, in some cases, there are regulations in the code that are specific to vehicles, such as those in Sections 309, 319, 5706 and 5707.



# Food Truck History

The history of American food trucks dates back many years as mobile dining and street food have been part of American's dining habits since the late 17th century where it could be found in many of the larger cities on the east coast.

Since then, food trucks have taken a front seat in the world of American street food and are part of an ongoing food revolution.



# A brief history of the mobile food industry in the United States:

1691 – New Amsterdam (now known as New York City) begins regulating street vendors selling food from push carts.

1850's – Dining cars begin feeding cross country train passengers.

1866 – The Chuck wagon is invented by Charles Goodnight to feed cattlemen and wagon trains traversing the old West.

1872 – The first diner is setup in a horse-drawn freight wagon.

1894 – Sausage vendors sell their wares outside the student dorms at major eastern universities (Yale, Harvard, Princeton, and Cornell), and their carts became known as “dog wagons”.

1917 – The US Army mobile canteens (field kitchens) begin to feed the troops.



# A brief history of the mobile food industry in the United States:

1936 – Oscar Mayer rolls out the first portable hot dog cart The Weiner Mobile.

1950's – Ice cream trucks begin selling their frozen treats.

1960's – Roach coaches make their presence known to construction sites around the country.

1974 – Raul Martinez converted an old ice cream truck into the nation's first taco truck and parked it outside of an East Los Angeles bar.



# A brief history of the mobile food industry in the United States:

1980's – Grease trucks begin parking on Rutgers University in New Brunswick, NJ selling “Fat Sandwiches” to college students.

2004 – The Street Vendor Project creates the Vendy Awards. A competition that identifies and celebrates NYC's best street food vendors.

July 2006 – Wikipedia adds “food truck” to their list of entries including the history of food trucks around the world.

November 2008 – Kogi BBQ hit the streets of Los Angeles selling Asian infused tacos.



# A brief history of the mobile food industry in the United States:

January 2010 – Southern California Mobile Food Vendors Association (SoCalMFVA) is created, becoming the first organization created to protect the rights of gourmet food truck owners.

May 2010 – National Restaurant Association dedicates 1,500 square feet to food truck exhibits at its annual convention in Chicago.

August 2010 – The Great Food Truck Race marks the first television program centered on the mobile food industry.

September 2010 – Mobile Cuisine ([mobile-cuisine.com](http://mobile-cuisine.com)) becomes the first website to provide coverage of the mobile food industry nationally.







# GREAT FOOD TRUCK RACE - PROMO

# Mobile Food Preparation Vehicles

## Call it over-the-top. Call it cutting-edge.

Call it an extreme interactive mobile kitchen. But whatever you do, don't call it just another food truck.

TRUCK! (short for Traveling Restaurant Ultimate Competition Kitchen) debuted in Las Vegas earlier this month. Built on a behemoth, self-leveling, 70-foot trailer, it was created by Cruising Kitchens of San Antonio, Texas, to make cooking competitions more mobile.

It even has a fold-out, theater-like stage and an 18-foot interactive media wall covered in HD and LFD screens capable of live demos and broadcasts.

A 70-foot trailer is the platform for TRUCK! – a mobile culinary performance kitchen. The trailer transforms into twin professional competition kitchens, a fold-out stage, and an 18-foot interactive media wall capable of live broadcast



# A 70-foot trailer is the platform for TRUCK!



**A 70-foot trailer is the platform for TRUCK!**



# Are Food Trucks ..SAFE ..?



A photograph of a blue semi-truck engulfed in intense orange and yellow flames. The fire is concentrated on the upper part of the truck's body, with smaller flames visible at the base. A person in a light-colored shirt and dark pants stands to the right of the truck, looking towards the fire. The truck's license plate is visible and reads "089-2100". The scene is set outdoors, possibly on a highway or parking lot, with a concrete barrier visible on the left side. The sky is overcast and grey.

# RECENT INCIDENTS



# April 2011

## New York City - Frites 'N' Meats

The Frites 'N' Meats truck collided with another vehicle on the highway late Monday afternoon. The truck burst into flames, causing one of the propane tanks in the vehicle to explode with 1 worker hospitalized for burns and bruises



# April 2011

## New York City - Frites 'N' Meats

The Frites 'N' Meats burger truck was only allowed to carry two tanks of propane, but the source said the truck was carrying four tanks last Monday afternoon when it collided with another car on southbound West Street in TriBeCa. The collision ignited one of the propane tanks, burning the two people in the truck, one seriously.



# August 2012

## Toronto - Canadian National Exhibition

Toronto police say propane was the cause of an explosion that destroyed a food truck with no injuries . Debris from the explosion — including refrigerator and freezer parts, paper towels and some food items — was scattered in the vacant lot where it sat.



August 2013

# Austin, TX - Bastrop Homecoming Rodeo

1 worker hospitalized for burns from a propane tank explosion



# September 2013 Fresno, CA - Fresno Christian High School

Propane Tank Explosion with 2 hospitalized, 1 injured



September 2013

Fresno, CA - Fresno Christian High School



June 2014

# Memphis TN - Bossman Pitstop BBQ Southeast

Propane Tank Explosion 0 injured



# July 2014 Philadelphia

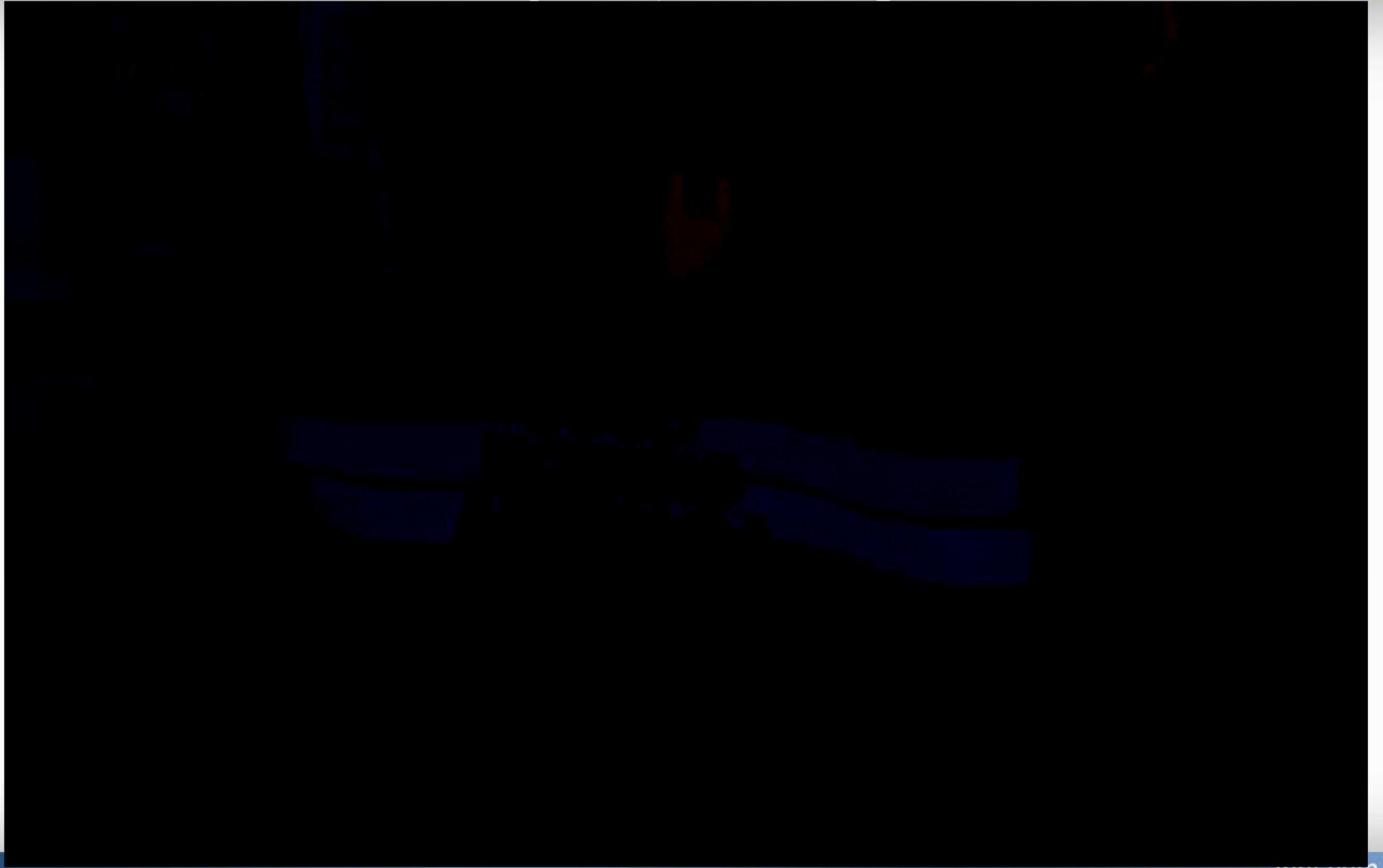
A food truck operator in Philadelphia and her daughter died when a 100-pound propane cylinder mounted on the back of her truck exploded with the force of a bomb. It was determined that the tank ruptured because U-Haul, the liquid propane dispenser, had disregarded essential and legally required safety procedures when it filled the cylinder. Several others sustained devastating burn injuries as a result of the explosion.





# July 2014

## Philadelphia, Pennsylvania



# August 2014 Venice, CA

A deep-fat fryer caught fire Friday night, igniting a blaze inside a food truck on Venice's Abbot Kinney Boulevard on the night of its monthly First Friday food truck event, officials said. Firefighters quickly extinguished the flames



# March 2015 Lakeville, MN

A food truck exploded in the driveway of a home in Lakeville, Minn. Friday night with a blast felt nearly 6 miles away from the scene. About 20 homes received minor damage, and residents of the home suffered minor injuries.



# March 2015 Lakeville, MN

The owner and operator of the food truck that blew up in a Lakeville neighborhood last month was warned by the city that he could not park or store the vehicle in residential areas



# June 2015 Indianapolis, IN

The fire is believed to have occurred when workers tried to refill a generator with fuel and the fumes were ignited by a nearby propane grill.



# June 2015 Indianapolis, IN



KOKOMO

6:00AM

TEMP: 70°

FORECAST: CLOUDY

6:06 85°

13

WTHR

# August 27, 2015 Miami, FL

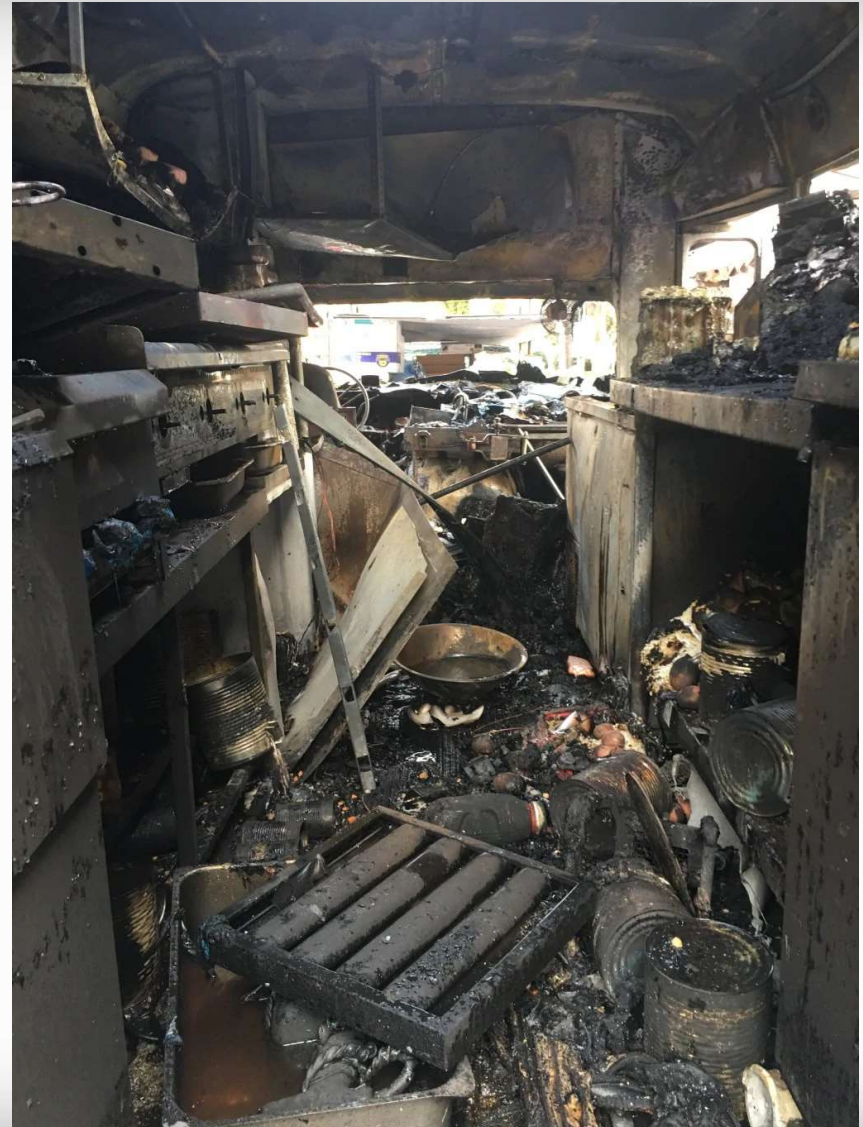
A South Florida food truck explosion sent mangled wreckage and debris flying as far as 100 feet and shattered windows of nearby homes in southwest Miami-Dade.



# November 2016 George Washington University

Three employees of a food truck selling falafel near George Washington University were seriously injured when the truck caught fire.

As part of their investigation of the incident, officials said they would examine the fuel lines from propane tanks and generators feeding into the truck







# October 2017 Portland, Oregon

A food cart exploded in, when a food cart employee spilled gasoline while refilling a generator. Two propane tanks ruptured during the ensuing fire, which spread to a second food truck and damaged 10 nearby cars. Several people sustained minor injuries.



# October 2017 Portland, Oregon



# Mobile Food Preparation Vehicle Incident

On August 12, 2018 a father and his adult son had to be flown to a hospital that specializes in burns after a food truck explosion in Lancaster County, Pennsylvania.



Christopher suffered burns on 40 percent of his body, while Ryan suffered burns on 28 percent of his body.



# Mobile Food Preparation Vehicle Incident

March 23, 2018: The founder of Taco Bus food trucks in Florida sustained burn injuries over 25 percent of his body when he went to light a pilot light on his new food trailer, and the propane exploded.



# Mobile Food Preparation Vehicle Incident

March 2018: A woman was hospitalized after an explosion at a crepes and waffles food truck in Beaverton, Oregon.

Rescue workers said the incident, which occurred in the morning, was likely an accidental propane explosion.



# Eugene, Oregon

## February 24, 2019

An explosion happened in the Buck Buck food cart located on Madison St. around 8 a.m. Sunday.

The explosion destroyed the food cart and officials said it also caused damage to three surrounding buildings. They said a door was blown down at Oakshire Brewing Public House, which neighbored the food cart. Officials also said the explosion somehow engaged the taps at Oakshire and beer spewed everywhere.

Nobody was injured in the explosion and officials do not have an estimate for how much damage was caused.

An owner of the business next door was attending church at St. Mary's when the explosion happened.

Officials from Eugene Springfield Fire are still on scene investigating the cause of the fire, but they said the explosion may have been caused by a malfunctioning gas line.



**Feb. 24, 2019**

vcnc.com



fppt.com

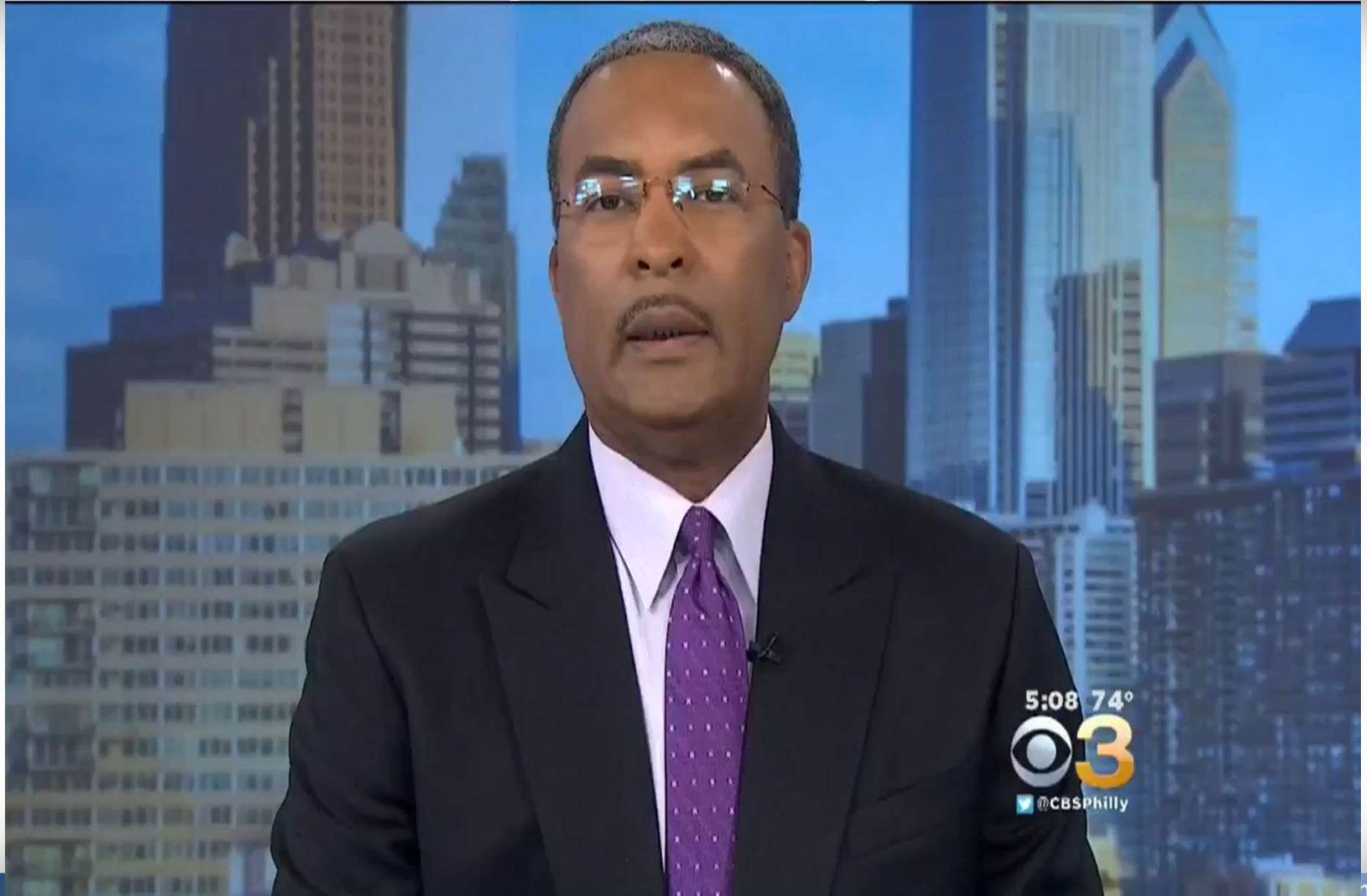


## What Happens If I Have Been Injured By a Food Truck Explosion or If a Member of My Family Has Been Injured or Killed?

Feldman Shepherd attorneys recently represented the Estates of a Philadelphia food truck operator and her daughter in connection with a catastrophic propane cylinder explosion that occurred due to U-Haul's failure to observe essential and legally required safety procedures, including filling a cylinder that was not properly requalified and lacked a functioning pressure relief valve and a fixed maximum level gauge.

The settlement amount of \$160 million for the victims, including two women who sustained burn injuries, is believed to be the largest pretrial settlement in Pennsylvania history.

# July 2014 Philadelphia, Pennsylvania



**July 2014**  
**Philadelphia, Pennsylvania**

# **Pressure Relief Valve Function**

# 2020 Fire Code of New York State

## ***NEW SECTION***

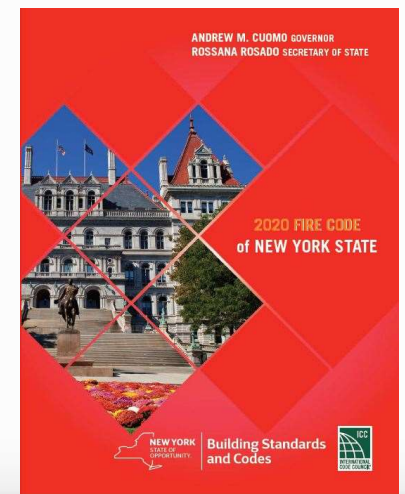
### **SECTION 319**

### **MOBILE FOOD PREPARATION VEHICLES**



# 319.1 General

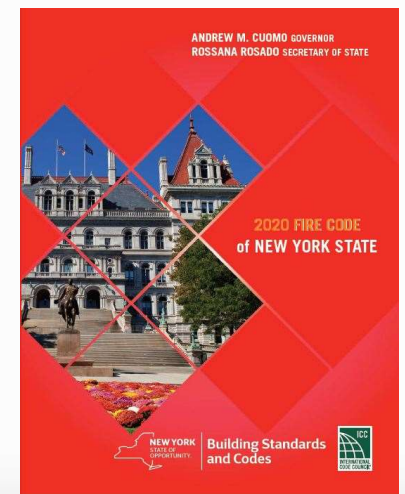
***Mobile food preparation vehicles*** that are equipped with appliances that produce smoke or grease laden vapors shall comply with this section.





# 319.1 General

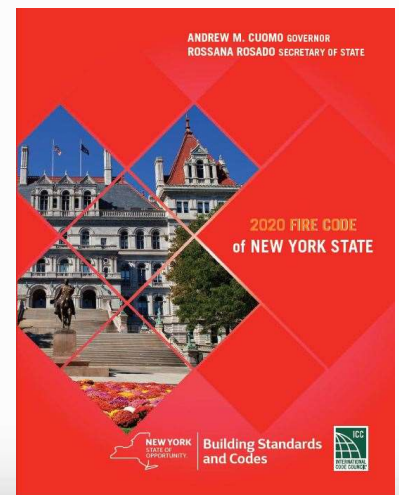
This newly created section introduces the requirements for mobile food preparation vehicles that have equipment that produces smoke or grease-laden vapors.



# *Italicized Terms*

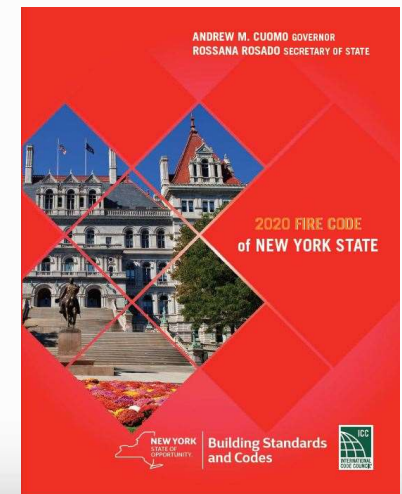
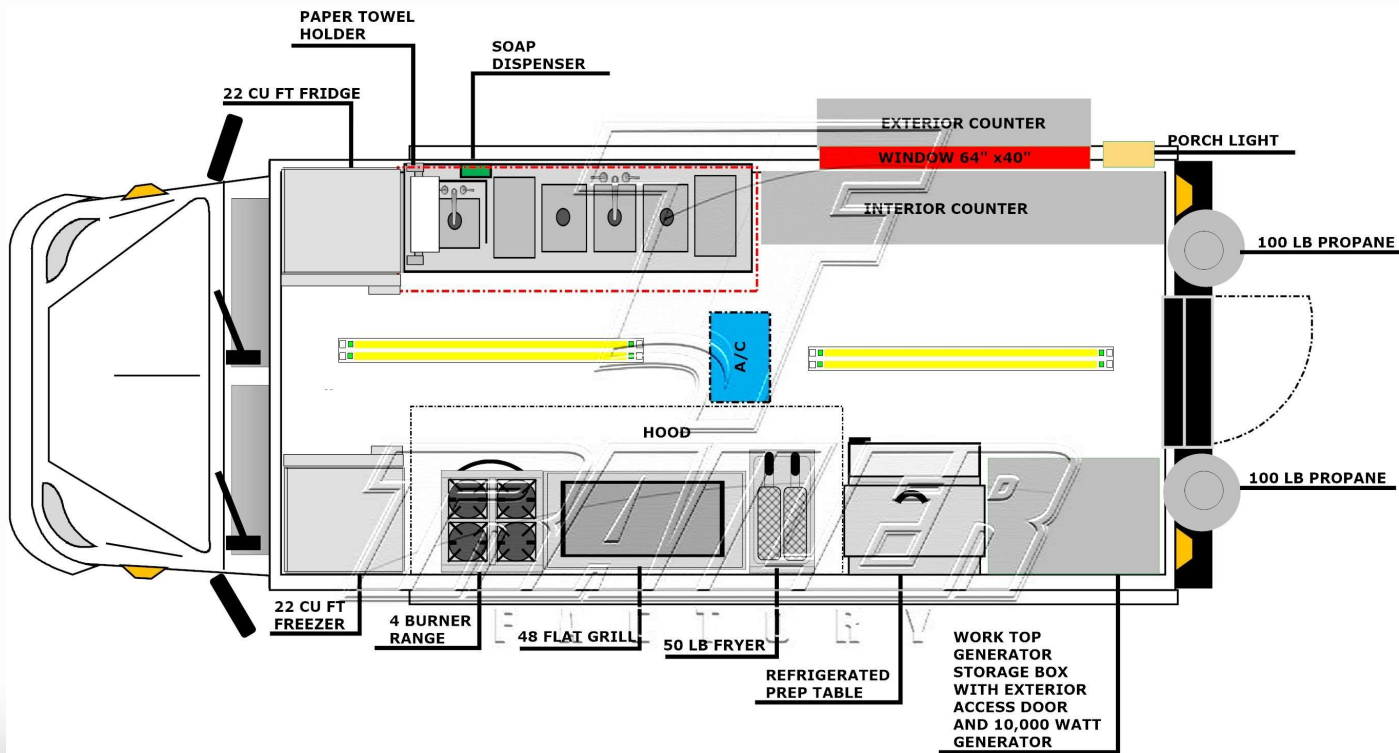
Words and terms defined in Chapter 2, Definitions, are italicized where they appear in code text and the Chapter 2 definition applies.

Where such words and terms are not italicized, common-use definitions apply. The words and terms selected have code-specific definitions that the user should read carefully to facilitate better understanding of the code



# MOBILE FOOD PREPARATION VEHICLES

Vehicles that contain cooking equipment that produce smoke or grease-laden vapors for the purpose of preparing and serving food to the public. Vehicles intended for private recreation shall not be considered mobile food preparation vehicles.

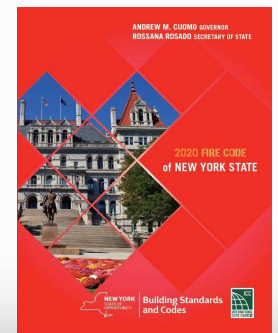


# MOBILE FOOD PREPARATION VEHICLES

This definition is provided in support of Section 319 addressing mobile food preparation vehicles (food trucks and their associated hazards). The definition helps to clarify what types of trucks are being regulated.

The definition is focused only on trucks that have food preparation operations producing smoke and grease-laden vapors.

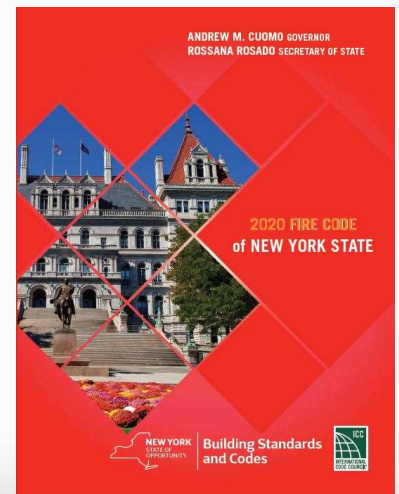
Concerns with food preparation vehicles are the fire hazards associated with the actual preparation, including cooking oils, and the cooking fuel and associated connections to the equipment.



# 319.1 General

***Mobile food preparation vehicles*** that are equipped with appliances that produce smoke or grease laden vapors shall comply with this section.

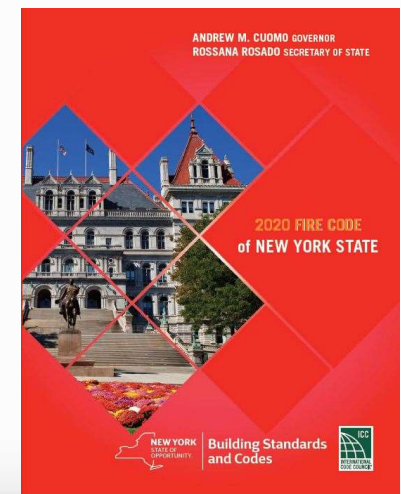
## NOT A MOBILE FOOD PREPARATION VEHICLE



# 319.1 General

***Mobile food preparation vehicles*** that are equipped with appliances that produce smoke or grease laden vapors shall comply with this section.

## NOT A MOBILE FOOD PREPARATION VEHICLE



# 319.2 Permit required

Permits shall be required as set forth in  
Section **105.6**.



**PERMIT  
REQUIRED**



# 108.8 Operating permits

Where the stricter of the Authority Having Jurisdiction's Code Enforcement Program or a Part 1203-Compliant Code Enforcement Program requires an operating permit to conduct an activity or to use a category of building, **no person or entity shall conduct such activity or use such category of building without obtaining an operating permit from the Authority Having Jurisdiction.**

The procedures for applying for, issuing, revoking, and suspending operating permits shall be as set forth in the stricter of the Authority Having Jurisdiction's Code Enforcement Program or a Part 1203-Compliant Code Enforcement Program.



# 108.9 Violations

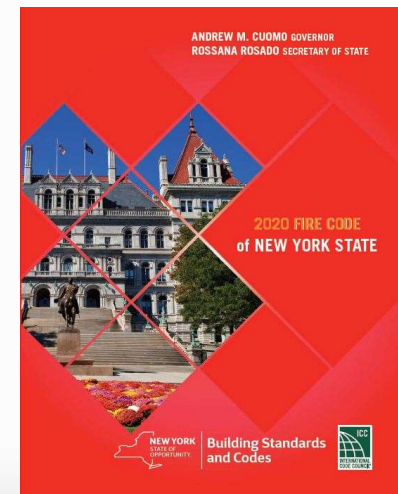
Any violation of any provision set forth in sections 108.3 through 108.8 shall be a violation of the Uniform Code, and any person or entity violating any such provision shall be subject to the penalties prescribed in Executive Law § 382(2).

In addition, to the extent that any act or omission that violates any provision set forth in sections 108.3 through 108.8 is also a violation of any other law, any person or entity guilty of such act or omission shall also be subject to the penalties prescribed in or otherwise applicable to a violation of such other law.



# 319.3 Exhaust hood

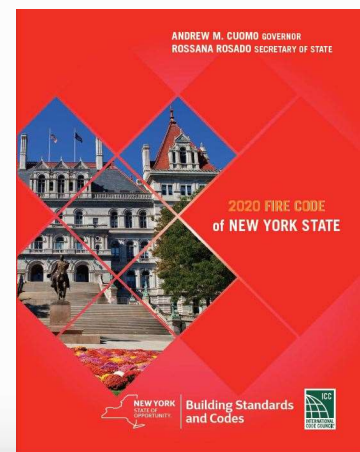
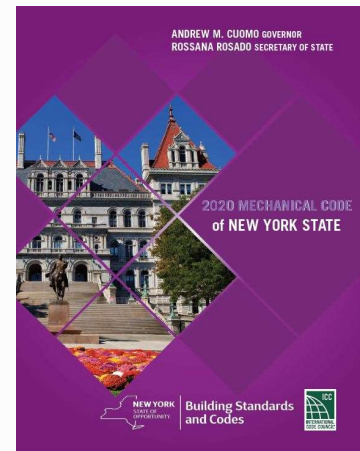
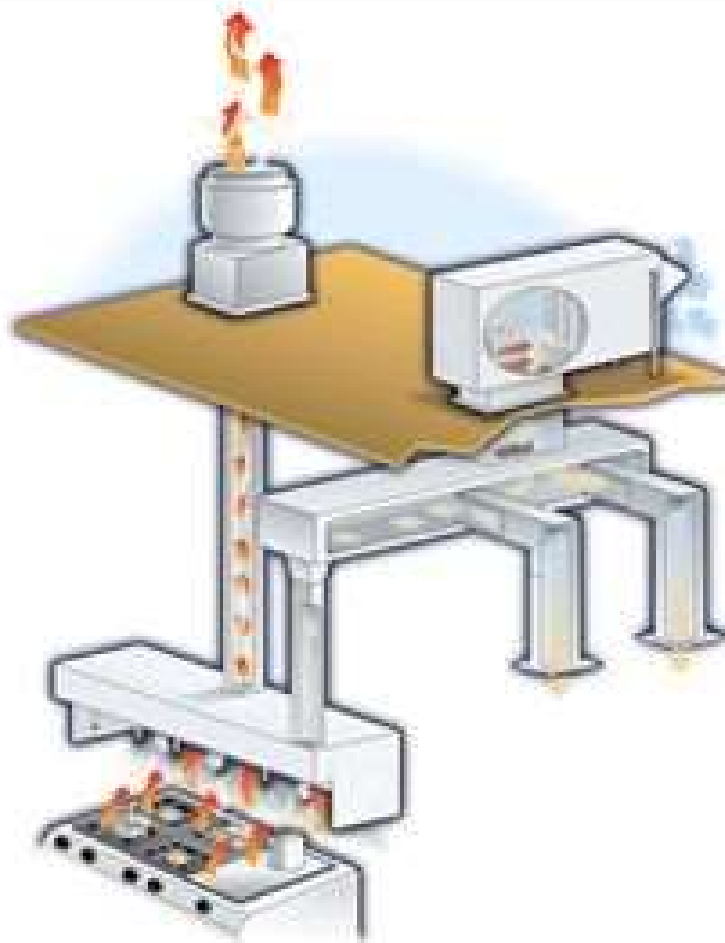
Cooking equipment that produces grease laden vapors shall be provided with a kitchen exhaust hood in accordance with Section 607.



# Section 607

## Commercial Kitchen Hoods

[M] 607.1 General. Commercial kitchen exhaust hoods shall comply with the requirements of the Mechanical Code of New York State.





**Live 5 News**

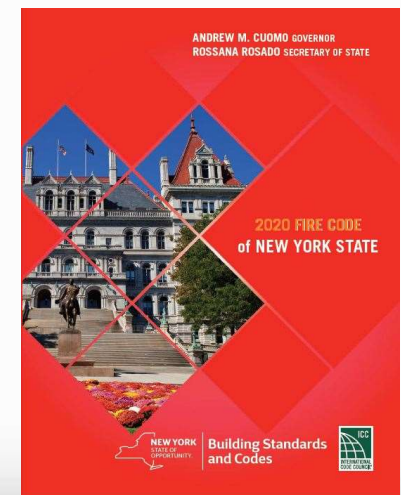
3h ago

**DHEC investigating two possible cases of novel coronavirus in South Carolina**

# Section 607

## Commercial Kitchen Hoods

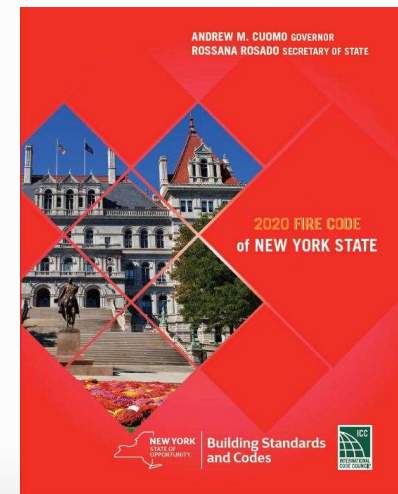
[M] 607.2 Where required. A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors.



# 319.4

## Fire protection

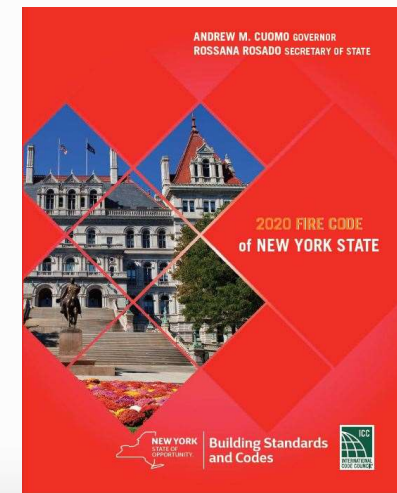
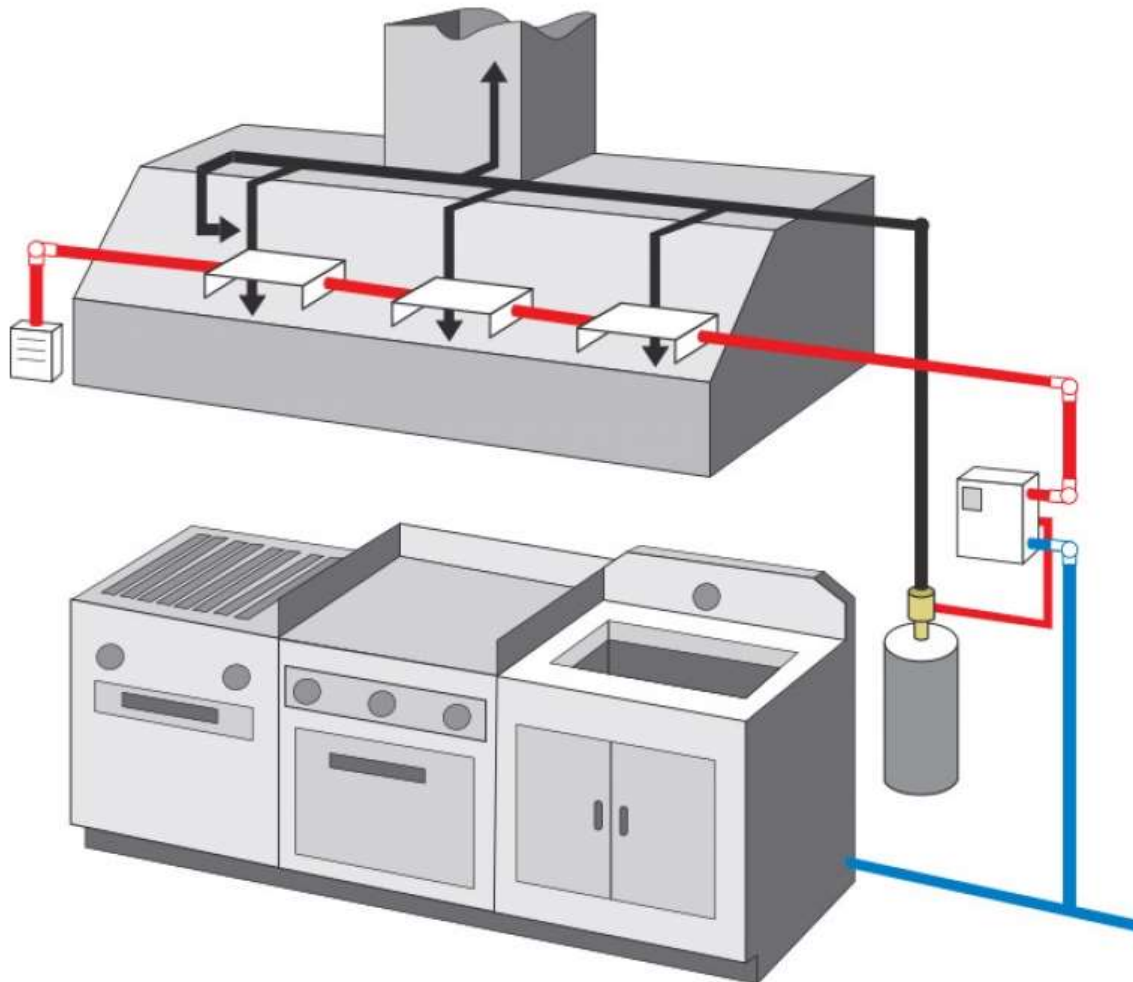
Fire protection shall be provided in accordance with Sections 319.4.1 and 319.4.2.



# 319.4.1

## Fire protection for cooking equipment

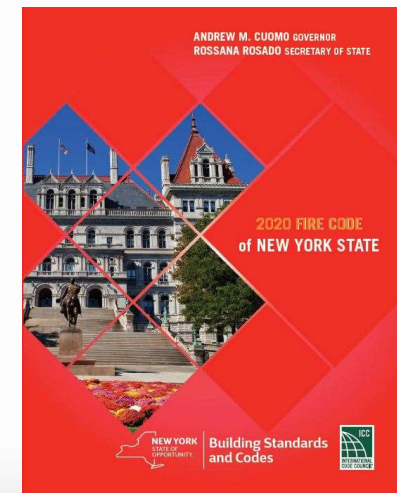
Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with Section 904.12.



# 319.4.1

## Fire protection

This section provides the direct section reference to fire protection requirements for these vehicles and makes it clear that the same requirements that apply to fixed indoor commercial cooking operations also apply in this specific mobile vehicle use.





# 904.12

## Commercial cooking systems

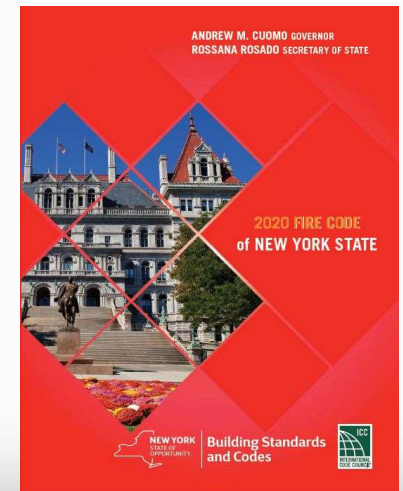
The automatic fire extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. Preengineered automatic dry- and wet-chemical extinguishing systems shall be tested in accordance with UL 300 and *listed* and *labeled* for the intended application.

Other types of automatic fire-extinguishing systems shall be *listed* and *labeled* for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, NFPA 96, its listing and the manufacturer's installation instructions.



# 319.4 Fire protection

319.4.2 Fire extinguisher. Portable fire extinguishers shall be provided in accordance with Section 906.4.



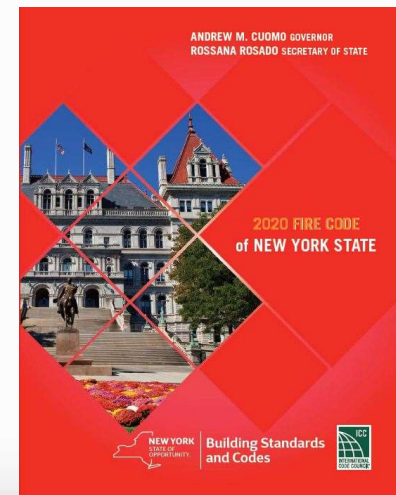
# 906.4

## Cooking equipment fires

Fire extinguishers provided for the protection of cooking equipment shall be of an approved type compatible with the automatic fire-extinguishing system agent. Cooking equipment involving solid fuels or vegetable or animal oils and fats shall be protected by a Class K-rated portable extinguisher in accordance with Sections 906.1, Item 2, 906.4.1 and 906.4.2 as applicable.



**K**

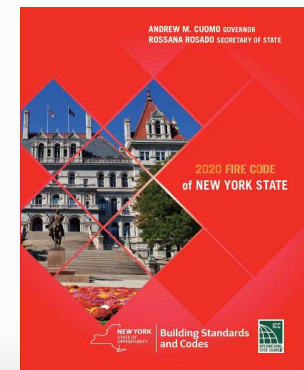


## 906.4.2

# Cooking equipment fires

906.4.2 Class K portable fire extinguishers for deep fat fryers. Where hazard areas include deep fat fryers, listed Class K portable fire extinguishers shall be provided as follows:

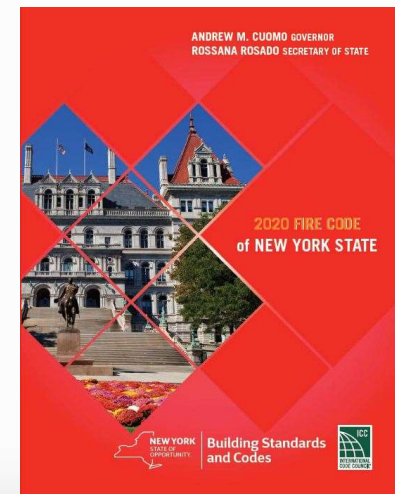
1. For up to four fryers having a maximum cooking medium capacity of 80 pounds (36.3 kg) each: one Class K portable fire extinguisher of a minimum 1.5-gallon ( 6 L) capacity.
2. For every additional group of four fryers having a maximum cooking medium capacity of 80 pounds (36.3 kg) each: one additional Class K portable fire extinguisher of a minimum 1.5-gallon (6 L) capacity shall be provided.
3. For individual fryers exceeding 6 square feet (0.55 m<sup>2</sup>) in surface area: Class K portable fire extinguishers shall be installed in accordance with the extinguisher manufacturer's recommendations.



# 319.5

## Appliance connection to fuel supply piping

Gas cooking appliances shall be secured in place and connected to fuel-supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with the manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector and appliance manufacturers' instructions.

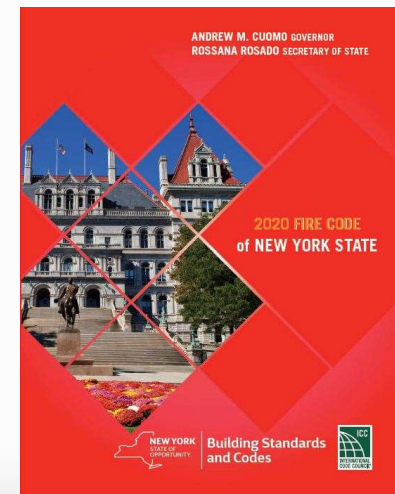


# 319.5

## Appliance connection to fuel supply piping

Similar to the requirements of Section 607.4, this section is intended to prohibit the practice of replacing listed flexible piping with residential flexible piping and using any connections that do not conform to the referenced standards.

Residential flexible piping is more easily damaged when cooking equipment is moved for cleaning, and specifically in this case, movement due to vehicle motion, thus causing a fire/ life safety problem with gas leaks and fires.



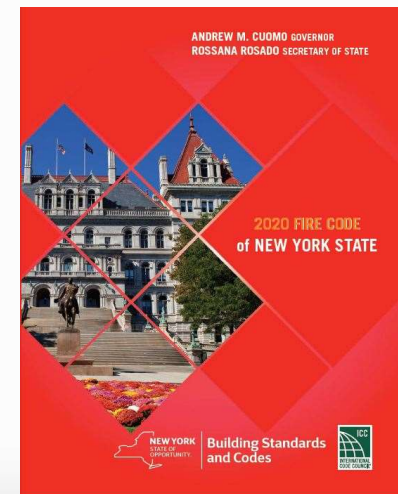
# 319.6

## Cooking oil storage containers

Cooking oil storage containers within mobile food preparation vehicles shall have a maximum aggregate volume not more than 120 gallons (454 L), and shall be stored in such a way as to not be toppled or damaged during transport.



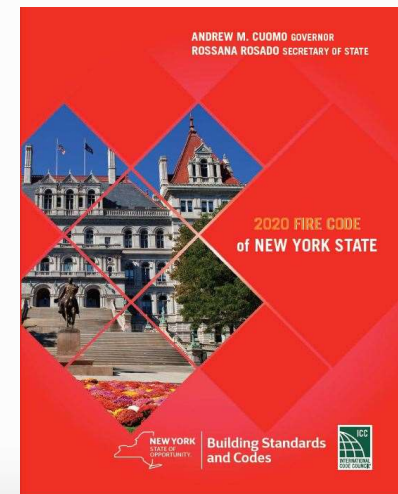
Frymaster PF95LP Low Profile Mobile Fryer Oil Filter - 80 lb. Capacity



# 319.6

## Cooking oil storage containers

This section provides the limit on the amount of cooking oil that can be stored in containers within the vehicles. The additional requirement for container restraint and protection is provided to ensure that the level of hazard is not increased in this specific use beyond what the code allows for a fixed container location.





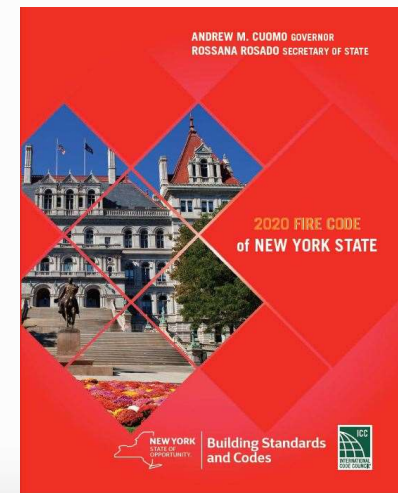
# 319.7

## Cooking oil storage tanks

Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections 319.7.1 through 319.7.5.2

Metallic and nonmetallic cooking oil storage system components shall include, but are not limited to, piping, connections, fittings, valves, tubing, hose, pumps, vents and other related components used for the transfer of cooking oil.

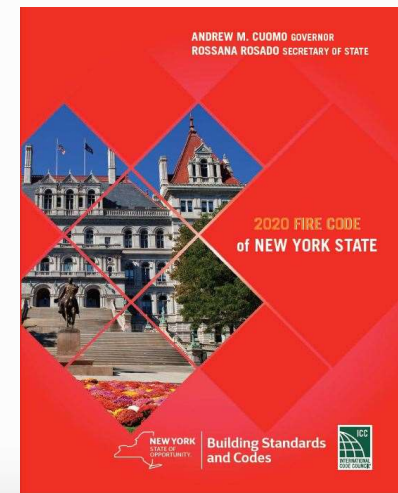
*The Dura-Cast Design Team created tanks that are pounds lighter than comparable fabricated metal tanks, and developed structural models that permit tanks to withstand hot oils up to 140°F.*



# 319.7.1

## Metallic storage tanks

Metallic cooking oil storage tanks shall be listed in accordance with UL 80 or UL 142, and shall be installed in accordance with the tank manufacturer's instructions.

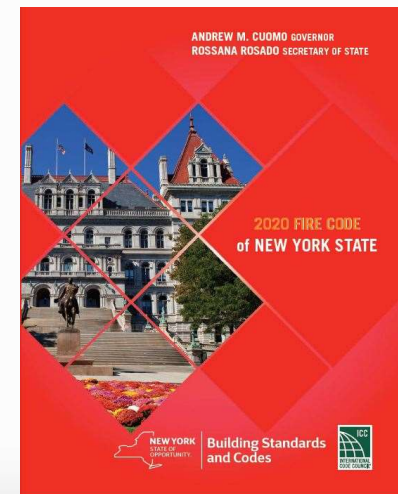


## 319.7.2

# Nonmetallic storage tanks

Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall comply with both of the following:

1. Tanks shall be *listed* for use with cooking oil, including maximum temperature to which the tank will be exposed during use.
2. Tank capacity shall not exceed 200 gallons (757 L) per tank.

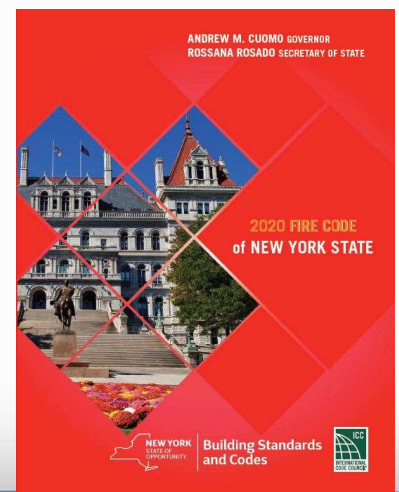


## 319.7.2

# Nonmetallic storage tanks

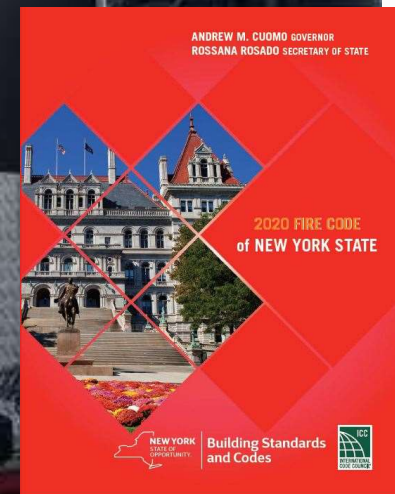
Cooking oil that has not been previously used must be stored in food grade tanks. Typically, nonmetallic tanks are more appropriate for nonused cooking oil. These provisions are not limited to fresh cooking oil and can be utilized for used, spent and inedible cooking oils..

Essentially, a listing for use with cooking oil is required, as is making sure that the maximum temperature limits associated with the tank match the application in which the tank is used



# 319.8 LP-gas systems

Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with Chapter 61 and Sections 319.8.1 through 319.8.5.



# 319.8 LP-gas systems

This section introduces the requirements for LP-gas that is used as fuel for cooking appliances within mobile food preparation vehicles. Additionally, it makes it clear that the requirements of Chapter 61 also apply in this situation.

### Is your propane cylinder SAFE?

Propane cylinders must be periodically requalified to be safe for use. Do not use cylinders that have not been requalified because you risk property damage, severe injury, or death.

To see if your cylinder is okay to use, look for these markings:

- A Manufacturing Date:** Cylinders must be requalified every 10 years at manufacture (or this instruction by May 12, 2012).
- B Requalification Date:** If the cylinder is older than 10 years, look for a requalification date.



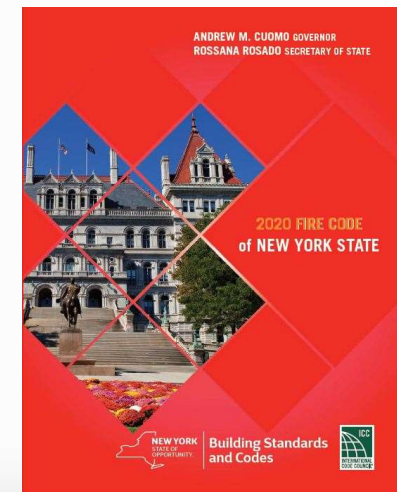
Other possible requalification markings:

- 7/14**: All propane cylinders must be requalified every 10 years by the requalification date.
- 07/14E**: If there is a cylinder that is requalified after 10 years by the requalification date.
- 7/14M**: If there is a cylinder that is requalified after 10 years by the requalification date.


For more information on propane safety and requalification, visit [www.npsa.com](http://www.npsa.com) or call 1-800-451-1522.

ANDREW M. CUOMO GOVERNOR  
ROSSANA ROSADO SECRETARY OF STATE

## 2020 FIRE CODE of NEW YORK STATE



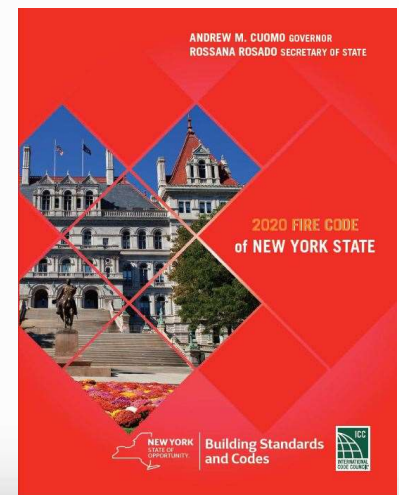
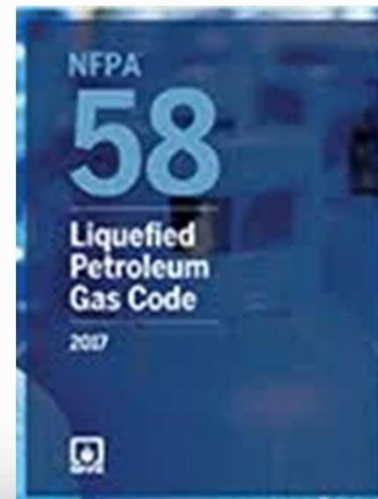
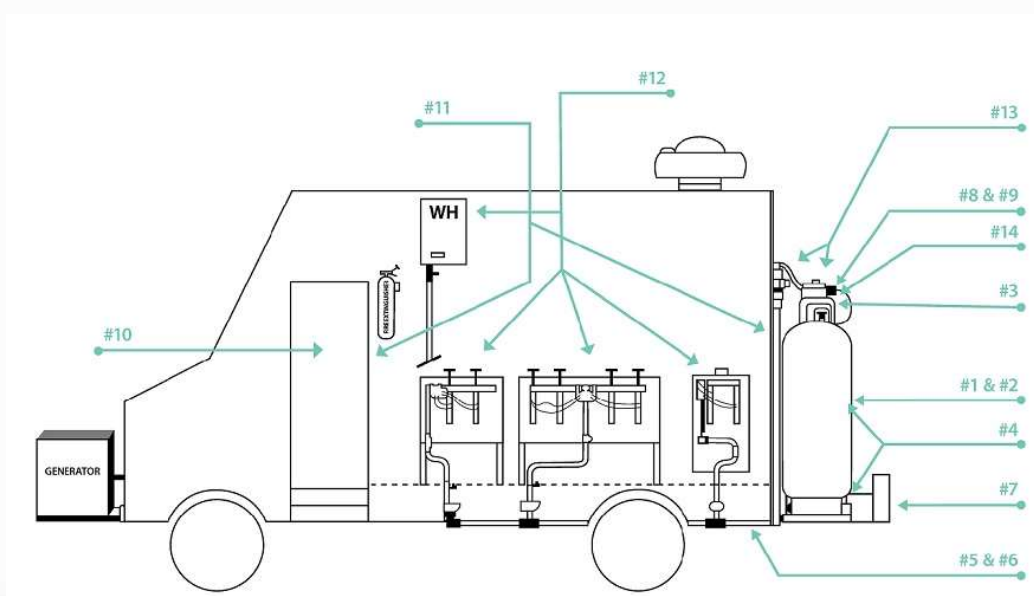
NEW YORK STATE OF COURSE  
Building Standards and Codes



# Chapter 61

## Liquefied Petroleum Gas

6101.1 Scope. Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gases shall be determined in accordance with Appendix B of NFPA 58.



# Propane Safety

According to NFPA, “a standard 20-gallon propane tank has the same explosive capability as 170 sticks of dynamite. . . [and] some trucks in unregulated jurisdictions carry propane tanks in e)





# Propane Safety

With this much propane on trucks, leaks are extremely problematic. NFPA says that, “because propane gas is heavier than air, an undetected leak can seep out and pool in pockets and crevasses inside and outside the truck”.

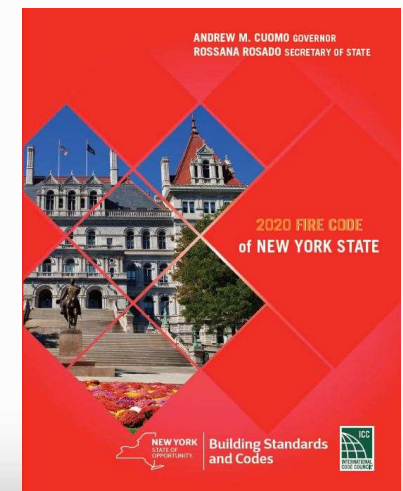
A single spark from an oven or stove can cause those propane pools to ignite. With this much propane one lit leak can be deadly.



# 319.8.1

## Maximum aggregate volume

The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds (91 kg) propane capacity.





## 319.8.2

### Protection of container

LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement.

**YES**



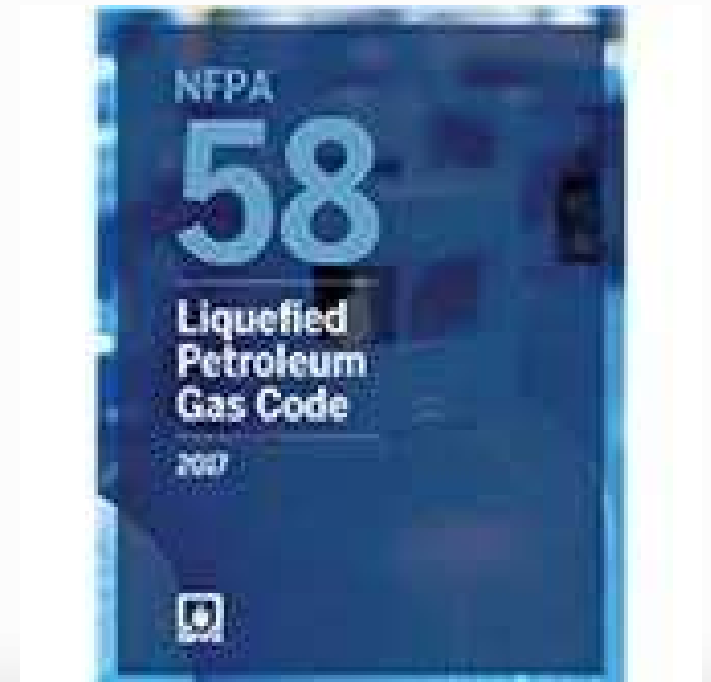
**NO**



## 319.8.3

# LP-gas container construction

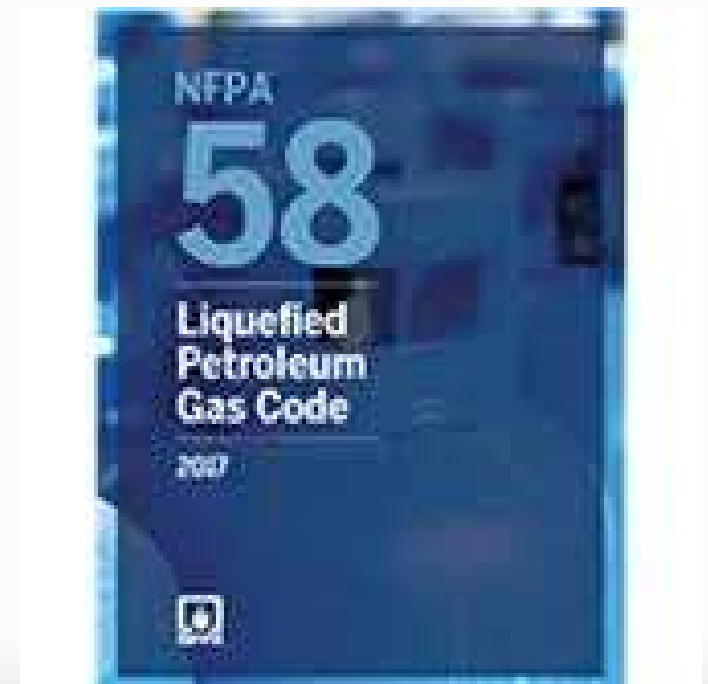
LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.



## 319.8.3

# LP-gas container construction

As required additionally by Chapter 61, LP-gas containers that are used on mobile vehicles are to be manufactured in accordance with NFPA 58.



## 319.8.4

# Protection of system piping

LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.



## 319.8.4

# Protection of system piping

Valve assemblies must be protected from physical impact. Cylinders having propane capacities up to 60 pounds (27 kg) will usually have collars that extend above the height of the valves. Larger cylinders will have screw-on caps or domes that serve the same function.





## 319.8.4

# Protection of system piping

A flexible connector shall be installed between the regulator outlet and the fixed pipe system. (NFPA 58 6.24.5.1(B))



## 319.8.4

### Protection of system piping

NFPA 58 6.24.5.1(F) The fixed piping system shall be designed, installed, supported, and secured to minimize the possibility of damage due to vibration, strains, or wear and to preclude any loosening while in transit



This piping does not have a flexible connection and is not properly secured

# Protected ..?

Tanks mounted under the truck are considered protected if they are listed for that purpose and installed properly. This tank would not be considered to be protected.

Containers shall be installed with as much road clearance as practical.

- Not lower than:
  - The lowest point of engine or transmission
  - The lowest structural component
  - The lowest point on the axle



# LPG Containers

The LP-Gas supply system, including the containers, shall be installed either on the outside of the vehicle or in a recess or cabinet vapor-tight to the inside of the vehicle but accessible from and vented to the outside. (NFPA 58 6.24.3.3)



# LPG Containers

Container fasteners shall be designed and constructed to withstand four times the weight of the container filled with fuel.  
(NFPA 58 6.24.3.4(B))



# LPG Containers

Cylinders shall have permanent protection for cylinder valves and connections. (NFPA 58 6.24.3.4(G))



Full coverage of the valve is not necessary.



*Caps like you see on larger tanks are not available for the tanks we will be dealing with on food trucks.*

# LPG Containers

Cylinder weather protection shall be provided.(NFPA 58  
6.24.3.4(H))

***Note: Weather protection as referenced here is intended to protect the regulator vent from slush and other hazards that may be thrown up from the road.***

A plugged or damaged regulator vent may result in higher than normal system pressures.

These higher pressures can result in pilot failures and improper appliance operation.

This can usually be accomplished by pointing the regulator vent down.

# LPG Containers

NFPA 58 11.8.3.2 No part of the container or its appertences shall protrude beyond the sides of the vehicle.

This regulator is not properly protected.





# Inspection Checklist

## LPG Appurtenances

Main shut-off valves on containers shall be readily accessible. (NFPA 58 6.24.4.1(3))

Regulators shall be installed with the pressure relief vent opening pointing vertically downward. (NFPA 58 6.24.4.2(A))

Regulators not installed in compartments shall be equipped with a durable cover. (NFPA 58 6.24.4.2(B))

Vehicle mounted regulators installed below the floor level shall be installed in a compartment that protects them from weather and wheel spray. (NFPA 58 6.24.4.2(C))

Regulator compartments shall be vapor-tight to the interior of the vehicle and vented to the outside. (NFPA 58 6.24.4.2(D))

A regulator vent outlet shall be at least 2 in. above the compartment vent opening. (NFPA 58 6.24.4.2(E))

# Inspection Checklist

## LPG Appurtenances

Containers shall be protected from impact. (NFPA 58 11.8.3)

Containers shall not be mounted directly on roofs or ahead of the front axle (Not including trailers) or beyond the rear bumper of the vehicle.

No part of the container or its appurtenances shall protrude beyond the sides or top of the vehicle



# LPG Appliances

Appliances shall be readily accessible. NFPA 58 6.24.7.7

Appliances shall not block egress. NFPA 58:6.24.7.9

*Note: Food trucks are cramped by nature.*

***Expect narrow isles and some inconvenience.***

Also remember that accessibility requirements do not apply.

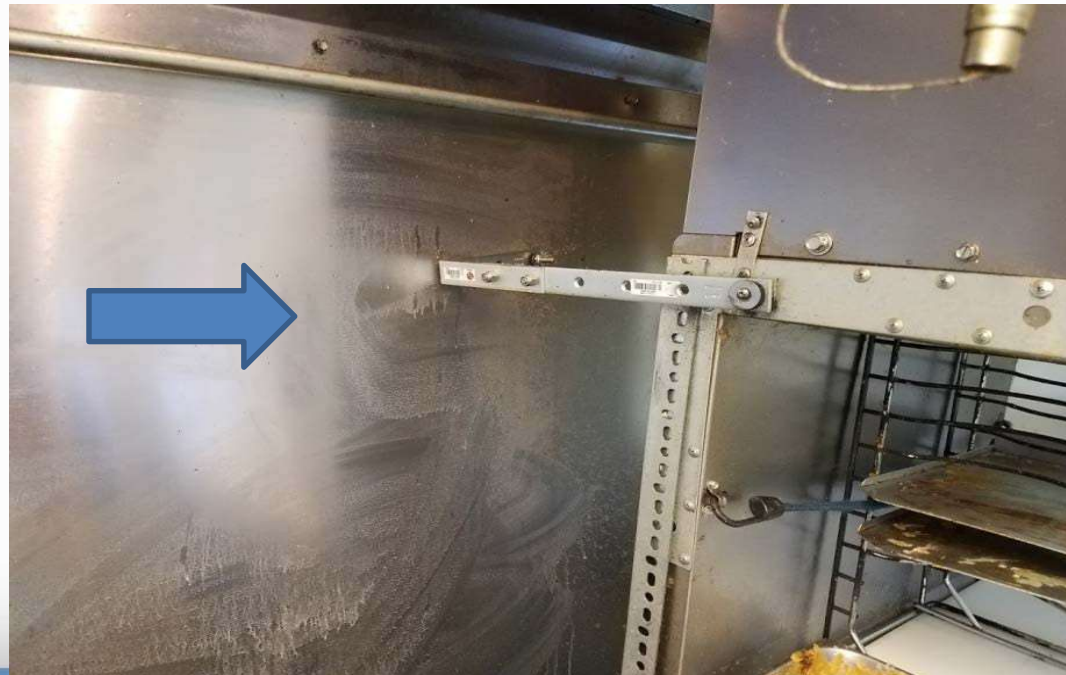
These serve only employees.



# LPG Appliances

Appliances shall be protected to minimize damage in transit.  
NFPA 58:6.24.7.8

Note: The standard does not say eliminate or prevent, it says minimize. **Be reasonable.**



# LPG Appliances

**58:6.24.7.10** A permanent caution plate shall be affixed to either the appliance or the vehicle outside of any enclosure, shall be adjacent to the container(s), and shall include the following instructions:

## Caution:

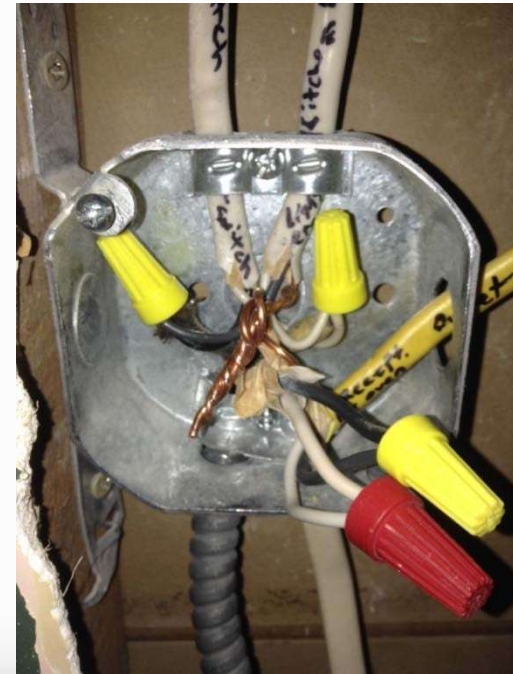
- (1) Be sure all appliance valves are closed before opening container valve.
- (2) Connections at the appliances, regulators, and containers shall be checked periodically for leaks with soapy water or its equivalent.
- (3) Never use a match or flame to check for leaks.
- (4) Container valves shall be closed when equipment is not in use.

# Electrical

Electrical hazards shall be abated 2020 FCNYS 604.1.

No open junction boxes 2020 FCNYS 604.6

**Note: This is similar to the inspections we do in buildings.**



# Electrical

Electrical panels shall be accessible 2020 FCNYS 6045.3

**Be reasonable!**

This will be different than a panel in a building.

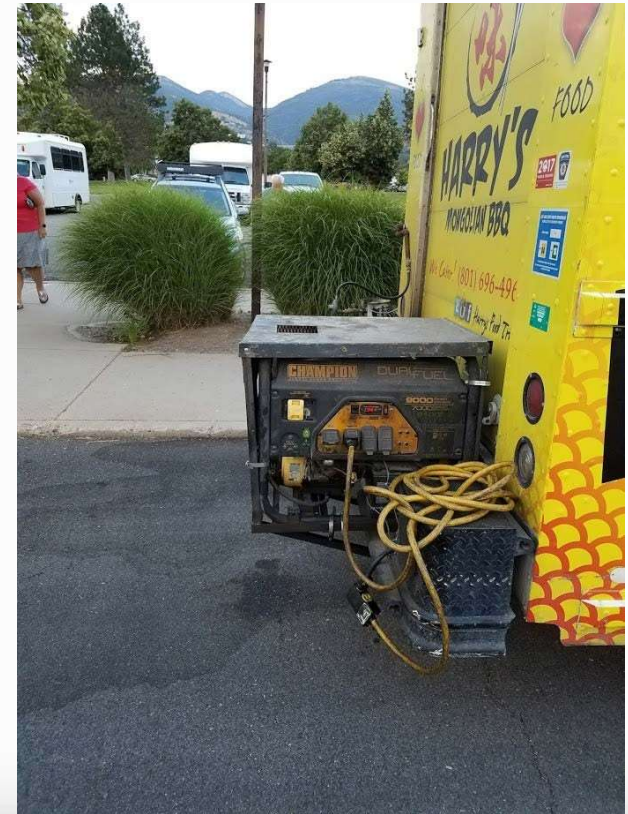
These trucks incorporate a full commercial kitchen in limited space.



# Electrical

Extension cords shall not replace permanent wiring 2020 FCNYS 604.5

**Should expect exterior cords!**





# General Requirements

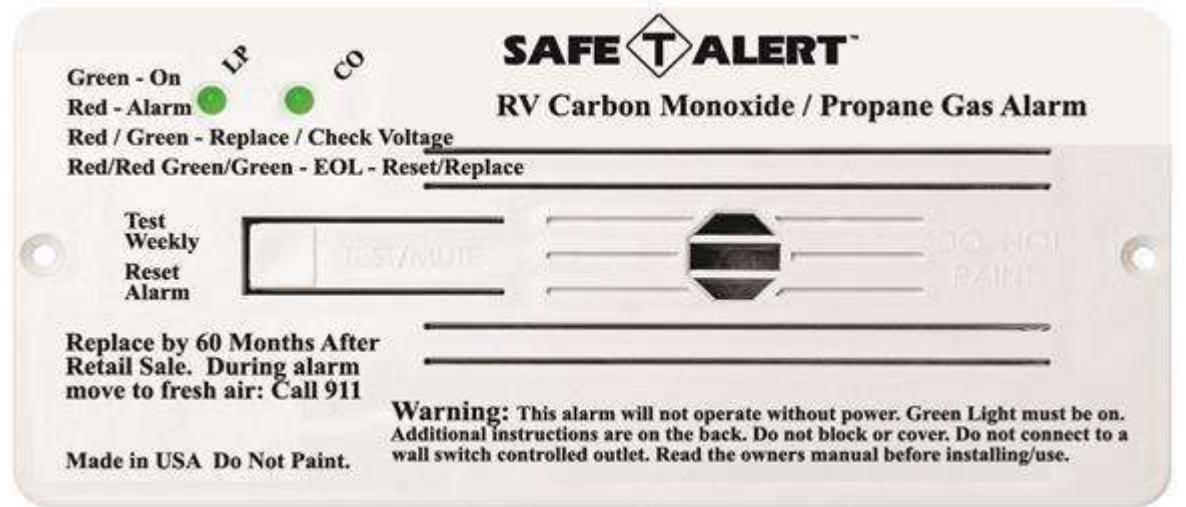
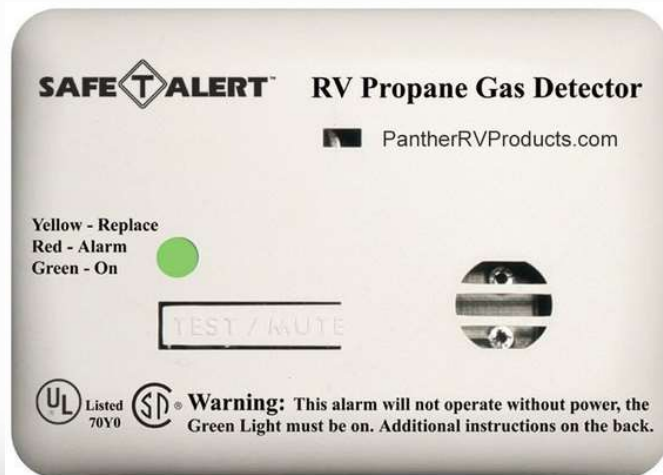
No Smoking sign 2020 Fire Code of New York State  
310, 6107.2

Note: Smoking is not allowed within 25 feet of the point  
of transfer to and from the LPG container.



# 319.8.5 LP-gas alarms

A *listed* LP-gas alarm shall be installed within the vehicle in the vicinity of LP-gas system components, in accordance with the manufacturer's instructions.



# 319.8.5

## LP-gas alarms

Specific to the use of LP-gas within mobile vehicles, a listed LP-gas alarm is required to be installed close to the system and as specified by the manufacturer's installation instructions. An applicable standard would be UL 2075.



UL 2075

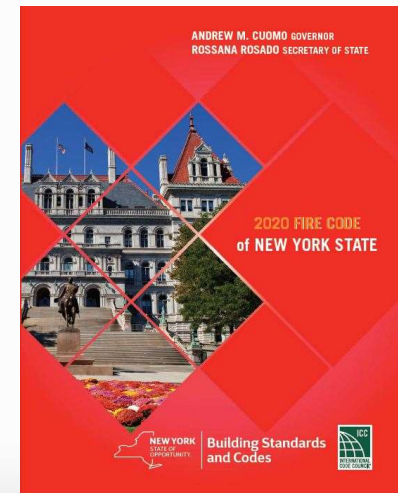
STANDARD FOR SAFETY

Gas and Vapor Detectors and Sensors

UL COPYRIGHTED MATERIAL -  
NOT AUTHORIZED FOR FURTHER REPRODUCTION OR  
DISTRIBUTION WITHOUT PERMISSION FROM UL

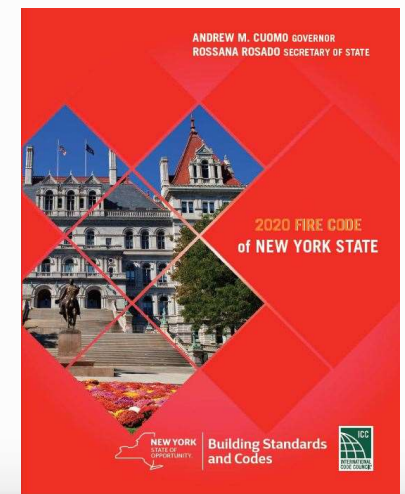
# 319.10 Maintenance

Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.10.1 through 319.10.3.



# 319.10.1 Exhaust system

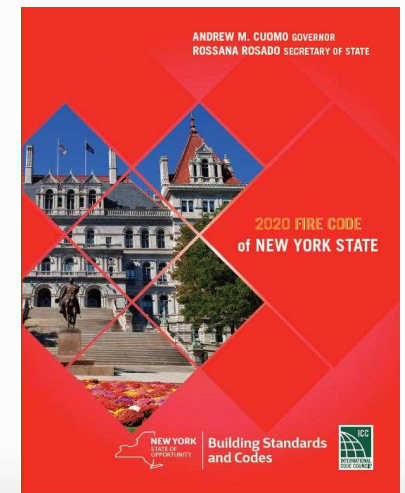
The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with Section 607.3.



# 607.3

## Operations and maintenance.

Commercial cooking systems shall be operated and maintained in accordance with Sections 607.3.1 through 607.3.4.

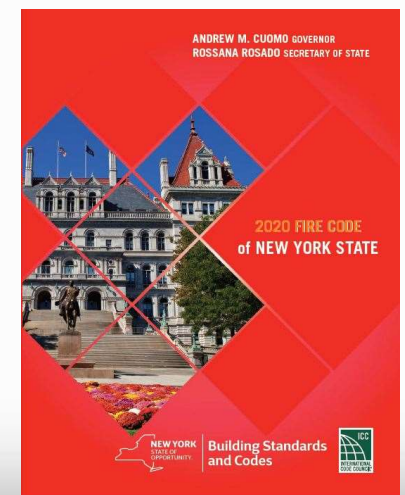


# 607.3

## Operations and maintenance.

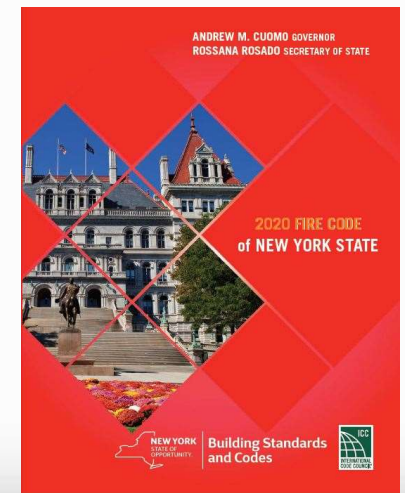
607.3.1 Ventilation system. The ventilation system in connection with hoods shall be operated at the required rate of air movement, and grease filters listed and labeled in accordance with UL 1046 shall be in place where equipment under a kitchen grease hood is used.

607.3.2 Grease extractors. Where grease extractors are installed, they shall be operated when the commercial-type cooking equipment is used.



## 607.3.3 Cleaning

607.3.3 Cleaning. Hoods, grease-removal devices, fans, ducts and other appurtenances shall be cleaned at intervals as required by Sections 607.3.3.1 through 607.3.3.3.



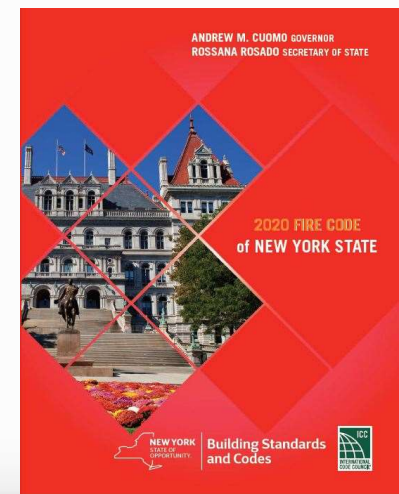


# 607.3.3.1 Inspection

Hoods, grease-removal devices, fans, ducts and other appurtenances shall be inspected at intervals specified in Table 607.3.3.1 or as approved by the fire code official. Inspections shall be completed by qualified individuals.

**TABLE 607.3.3.1  
COMMERCIAL COOKING SYSTEM INSPECTION FREQUENCY**

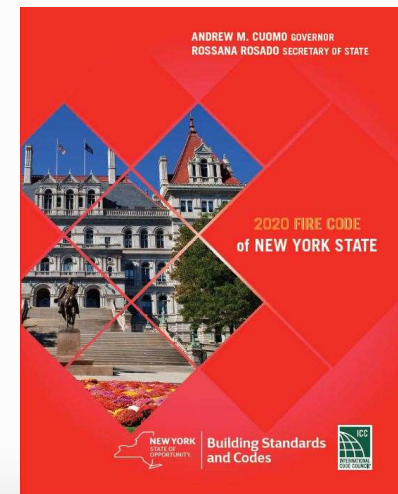
TYPE OF COOKING OPERATIONS	FREQUENCY OF INSPECTION
High-volume cooking operations such as 24-hour cooking, charbroiling or wok cooking	3 months
Low-volume cooking operations such as places of religious worship, seasonal businesses and senior centers	12 months
Cooking operations utilizing solid fuel-burning cooking appliances	1 month
All other cooking operations	6 months



# 319.10.2

## Fire protection systems and devices

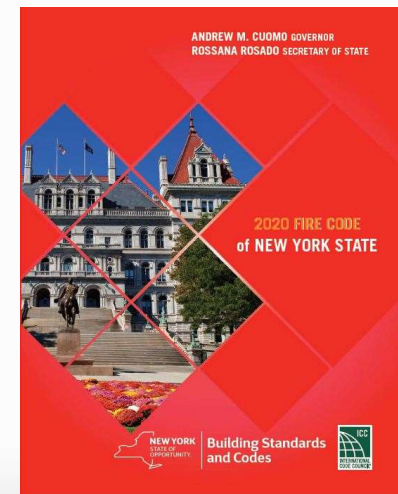
Fire protection systems and devices shall be maintained in accordance with Section 901.6.



# 901.6

## Inspection, testing and maintenance

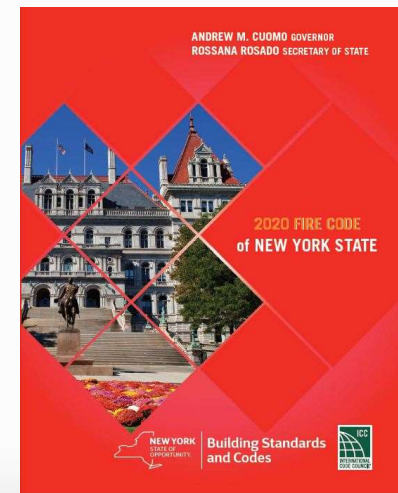
Fire detection and alarm systems, emergency alarm systems, gas detection systems, fire-extinguishing systems, mechanical smoke exhaust systems and smoke and heat vents shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Nonrequired *fire protection systems* and equipment shall be inspected, tested and maintained or removed.



# 319.10.3

## Fuel gas systems

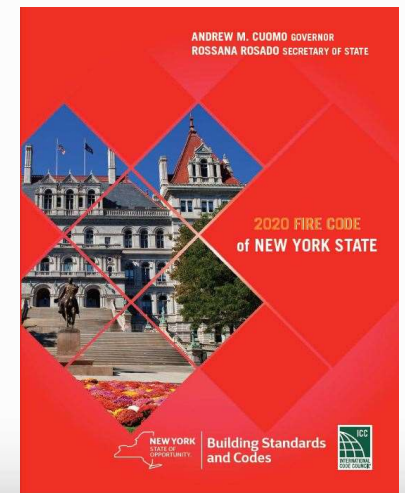
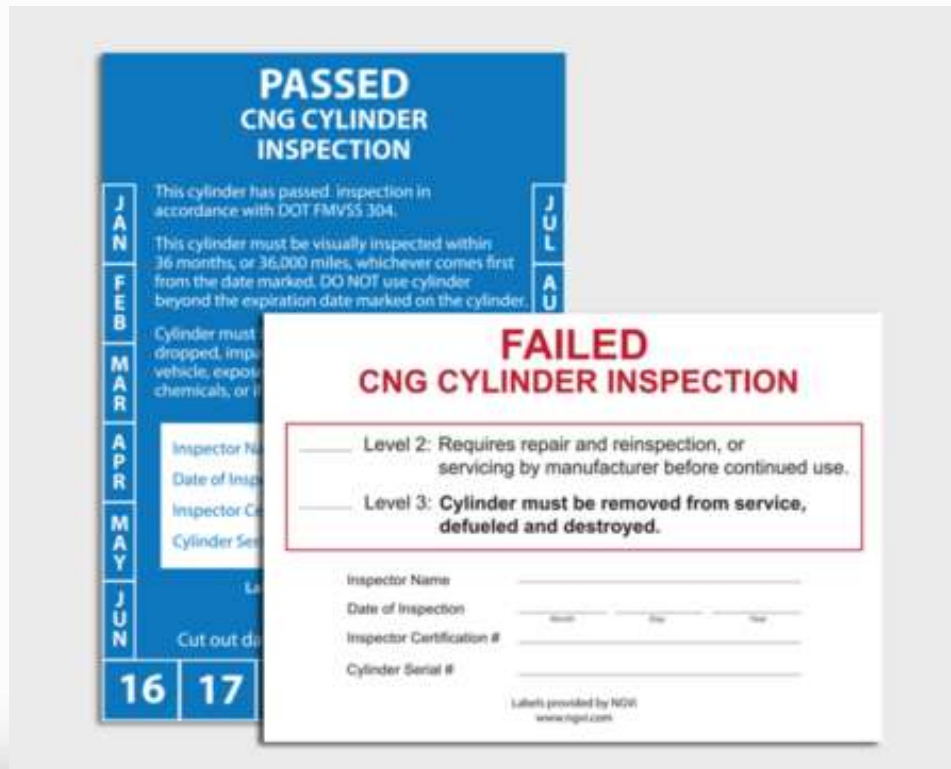
LP-gas containers installed on the vehicle and fuel-gas piping systems shall be inspected annually by an approved inspection agency or a company that is registered with the U.S. Department of Transportation to requalify LP-gas cylinders, to ensure that system components are free from damage, suitable for the intended service and not subject to leaking.



# 319.10.3

## Fuel gas systems

CNG containers shall be inspected every 3 years in a qualified service facility. CNG containers shall not be used past their expiration date as listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.

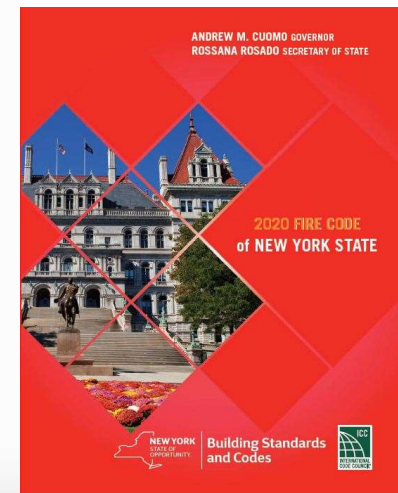


# 319.10.3

## Fuel gas systems

This section provides the inspection frequency requirement for LP-gas containers and fuel-gas piping systems on food preparation vehicles. As stated, the inspection of the LP-gas systems is to be performed by an entity that is registered with the US DOT.

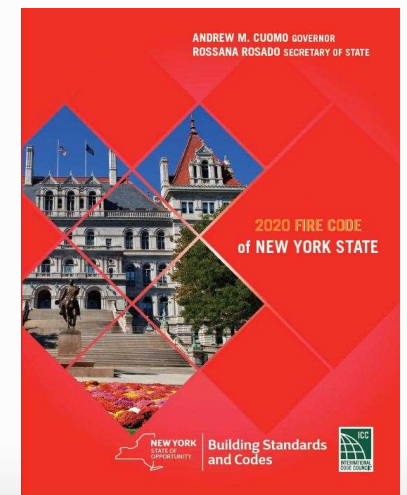
CNG containers are to be inspected every 3 years by a qualified facility and not used past the expiration date on the container.



# 503.4

## Obstruction of fire apparatus access roads

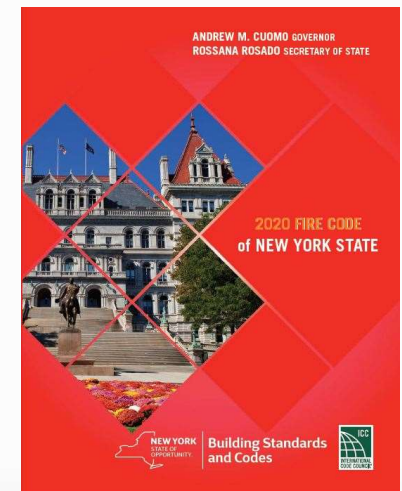
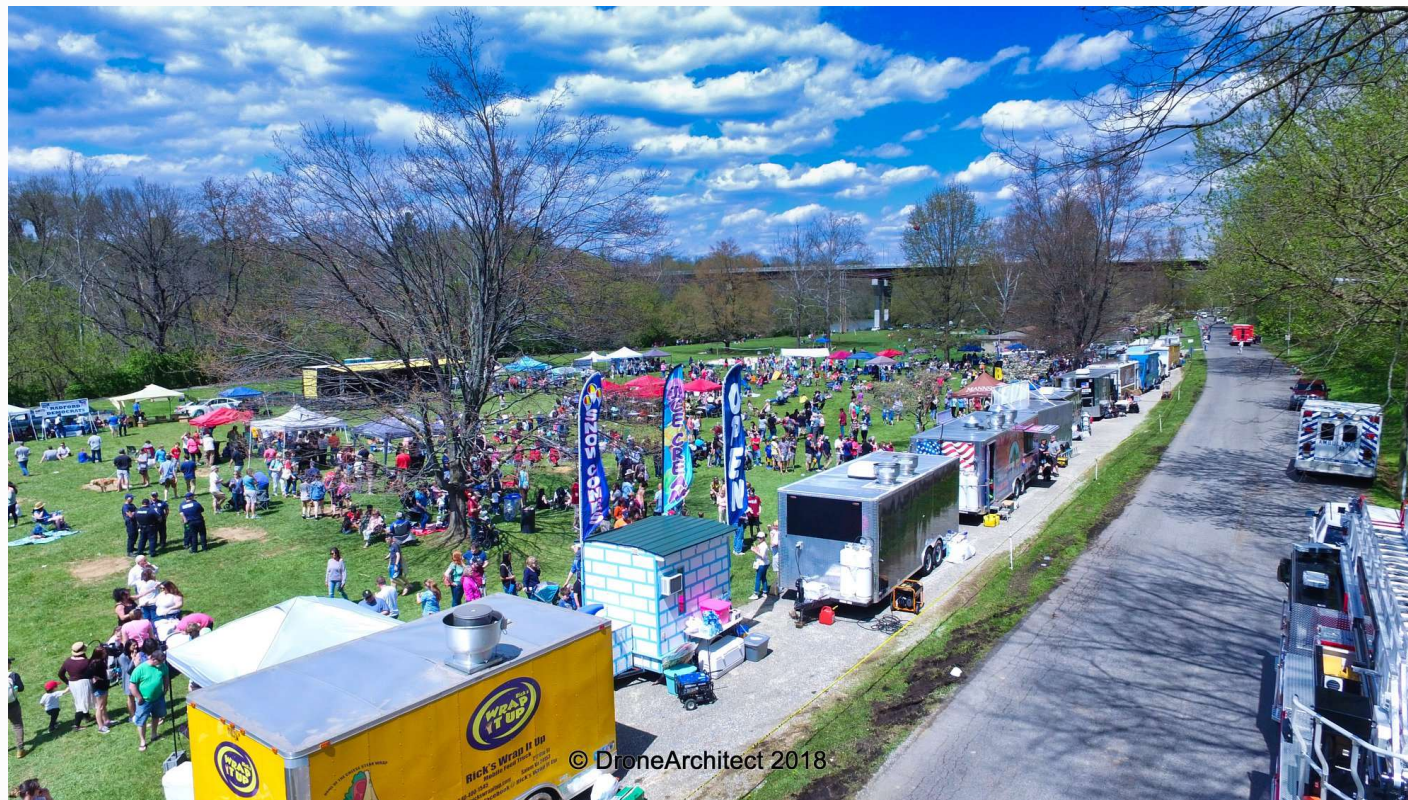
Verify fire department vehicular access and proper clearance is provided for fire lanes or access roads, fire hydrants and fire department connections.



# 503.4

## Obstruction of fire apparatus access roads

Verify fire department vehicular access and proper clearance is provided for fire lanes or access roads, fire hydrants and fire department connections.





# Access

Fire apparatus access roads shall not be obstructed IFC 503.4

Note: **This is an educational piece for the food truck operator.**

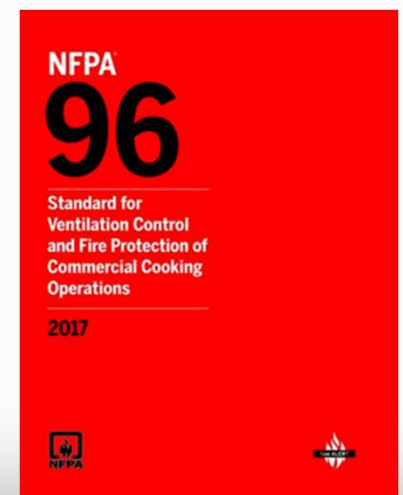
Taking time to explain access, and the fact that food truck placement may vary event to event will be of value as the operator moves between events.



# NFPA 96 – Appendix B

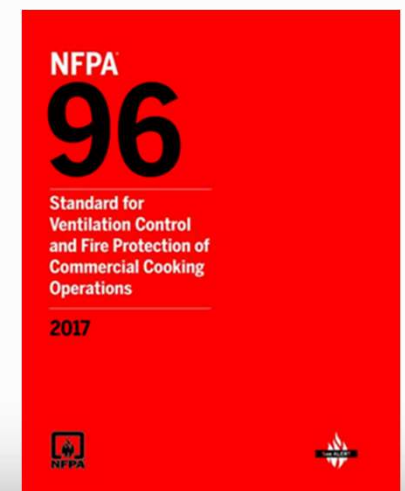
The new annex (mobile and temporary cooking operations) contains the following statement, which explains how the text is intended to be used.

***This annex is not a part of the requirements of this NFPA document unless specifically adopted by the jurisdiction. Additionally, information in this annex is intended to be incorporated on a voluntary basis. Although this annex is written in mandatory language, it is not intended to be enforced or applied unless specifically adopted by the jurisdiction or, if it is being applied on a voluntary basis.***



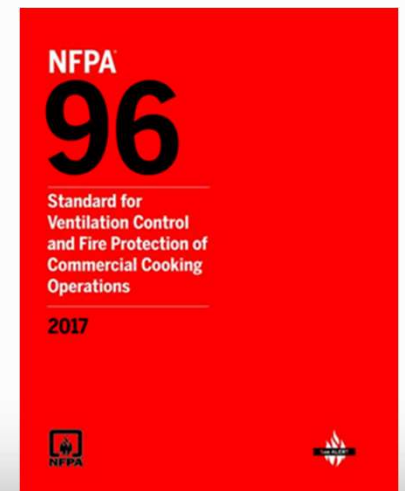
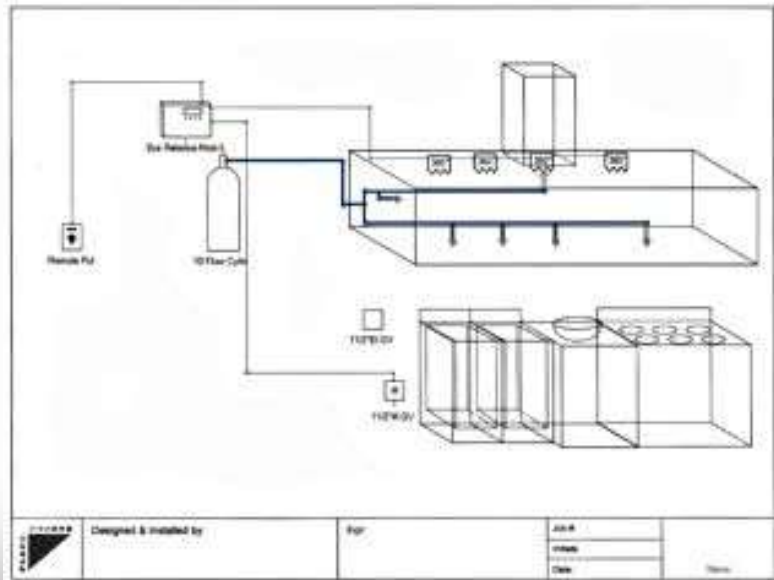
# NFPA 96 – Appendix B

B.1.6 The responsibility for inspection, testing, maintenance, and cleanliness of the ventilation control and fire protection of the commercial cooking operations, including cooking appliances, 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 – Appendix B

B.9.1.5 Where required, complete drawings of the system installation, including the hood(s), exhaust duct(s), and appliances, along with the interface of the fire-extinguishing system detectors, piping, nozzles, fuel and electric power shutoff devices, agent storage container(s), and manual actuation device(s), shall be submitted to the authority having jurisdiction and located within the mobile cooking operation.

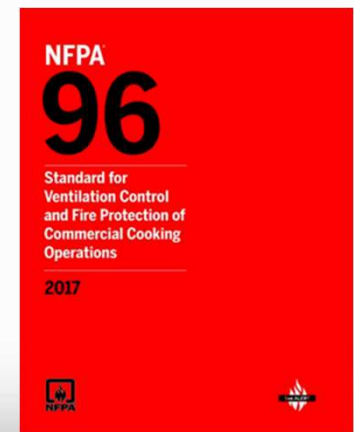


# NFPA 96 – Appendix B

B.9.2.1 Any abandoned pipe or conduit from a previous installation shall be removed from within the hood, plenum, and exhaust duct.

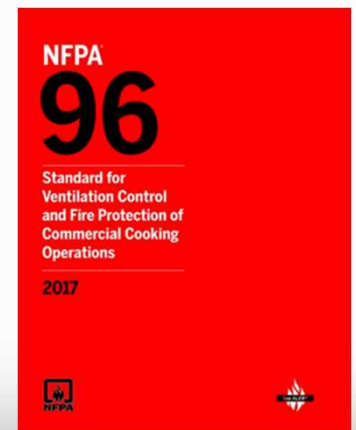
B.9.2.2 Penetrations and holes resulting from the removal of conduit or piping shall be sealed with listed or equivalent liquidtight sealing devices.

B.9.2.3 The addition of obstructions to spray patterns from the cooking appliance nozzle(s) such as baffle plates, shelves, or any modification shall not be permitted.



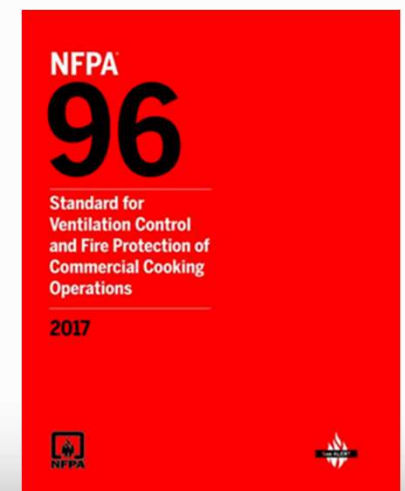
# NFPA 96 – Appendix B

B.9.2.4 Changes or modifications to the hazard after installation of the fire-extinguishing systems shall result in reevaluation of the system design by a properly trained, qualified, and certified person(s).



# NFPA 96 – Appendix B

B.9.3.1 Upon activation of any fire-extinguishing system for a cooking operation, all sources of fuel and electrical power that produce heat to all equipment requiring protection by that system shall automatically shut off.

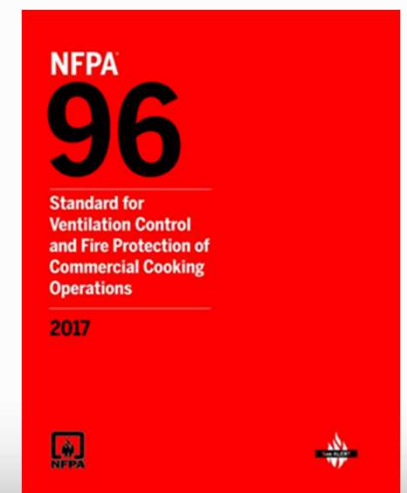


# NFPA 96 – Appendix B

## B.9.4 Manual Activation.

B.9.4.1 All systems shall have both automatic and manual methods of actuation.

B.9.4.1.1 At least one manual actuation device shall be located in a means of egress or at a location acceptable to the AHJ.

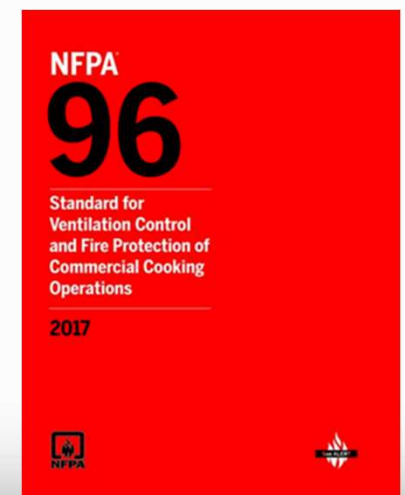
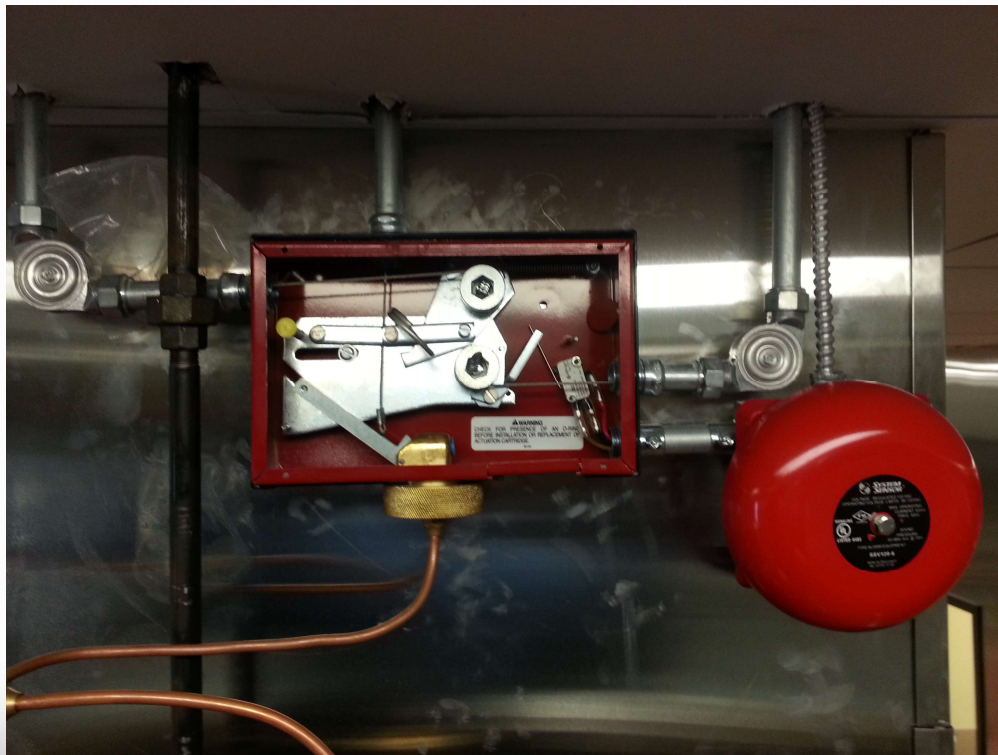




# NFPA 96 – Appendix B

## B.9.5 System Annunciation.

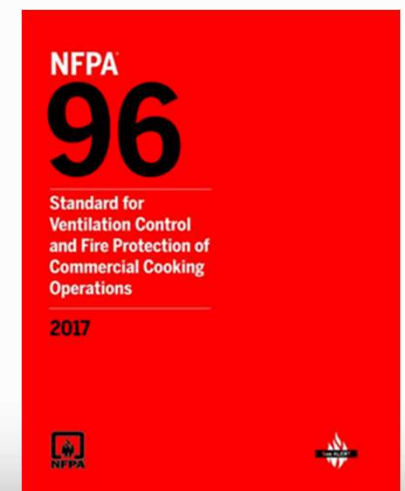
B.9.5.1 Upon activation of an automatic fire-extinguishing system, an audible alarm or visual indicator shall be provided to show that the system has activated.



# NFPA 96 – Appendix B

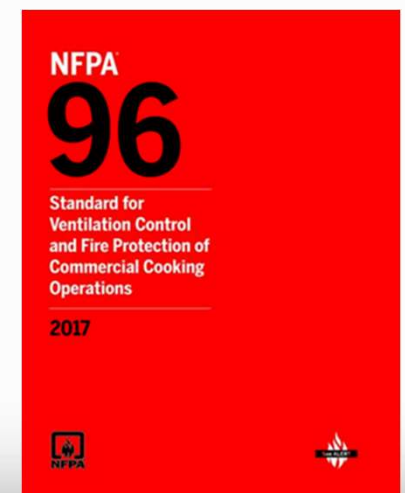
## B.9.5 System Annunciation.

B.9.5.2 At least one listed audible **and** visual notification appliance shall be installed on the exterior surface of the vehicle readily audible and visible to the public.



# NFPA 96 – Appendix B

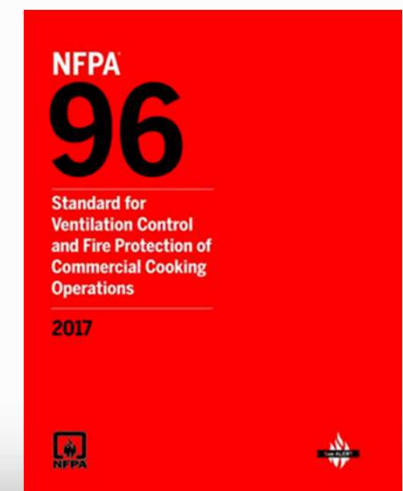
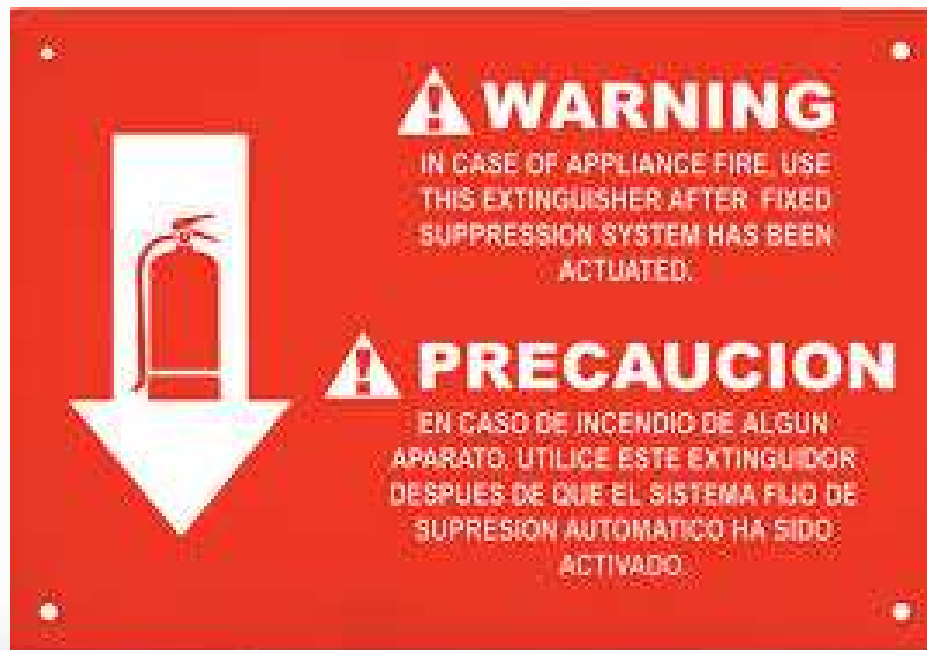
B.9.7.2 Class K fire extinguishers shall be provided for cooking appliance hazards that involve combustible cooking media (vegetable oils and animal oils and fats).



# NFPA 96 – Appendix B

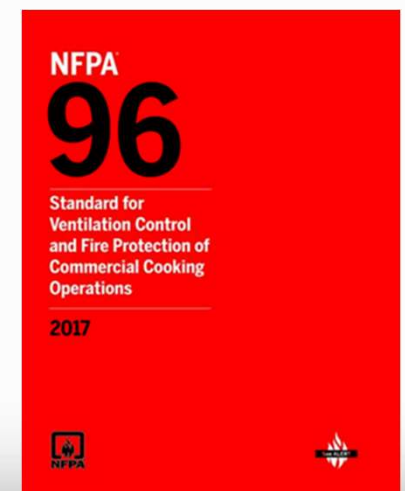
B.9.1.3 A placard shall be conspicuously placed near each Class K extinguisher that states that the fire protection system shall be activated prior to using the fire extinguisher.

*Note: NFPA 10, Annex A, provides recommendations for placards.*



# NFPA 96 – Appendix B

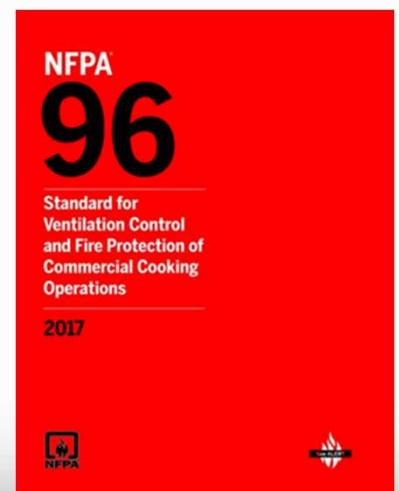
B.9.7.5 Where internal combustion engine power sources are provided, at least one portable fire extinguisher rated 20-B:C shall be provided.





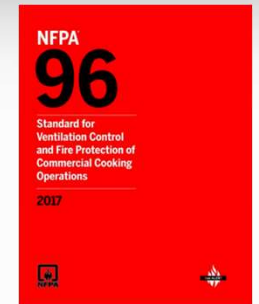
# NFPA 96 – Appendix B

## B.10 Solid Fuel Cooking Operations.



# NFPA 96 – Appendix B

## B.10 Solid Fuel Cooking Operations.



B.10.1 Venting Application.

B.10.2 Location of Appliances.

B.10.3 Hoods for Solid Fuel Cooking.

B.10.4 Grease Removal Devices for Solid Fuel Cooking.

B.10.5 Air Movement for Solid Fuel Cooking.

B.10.6 Fire-Extinguishing Equipment for Solid Fuel Cooking.

B.10.7 Procedures for Inspection, Cleaning, and Maintenance for Solid Fuel Cooking.

B.10.8 Minimum Safety Requirements: Fuel Storage, Handling, and Ash Removal for Solid Fuel Cooking.

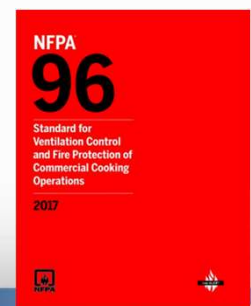
B.10.9 Other Safety Requirements.



# NFPA 96 – Appendix B

B.11.2 Inspection, Testing, and Maintenance of Fire- Extinguishing Systems.

B.11.2.1 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.



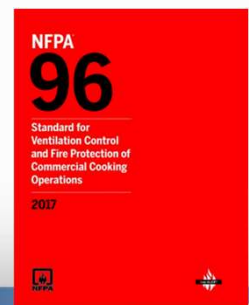
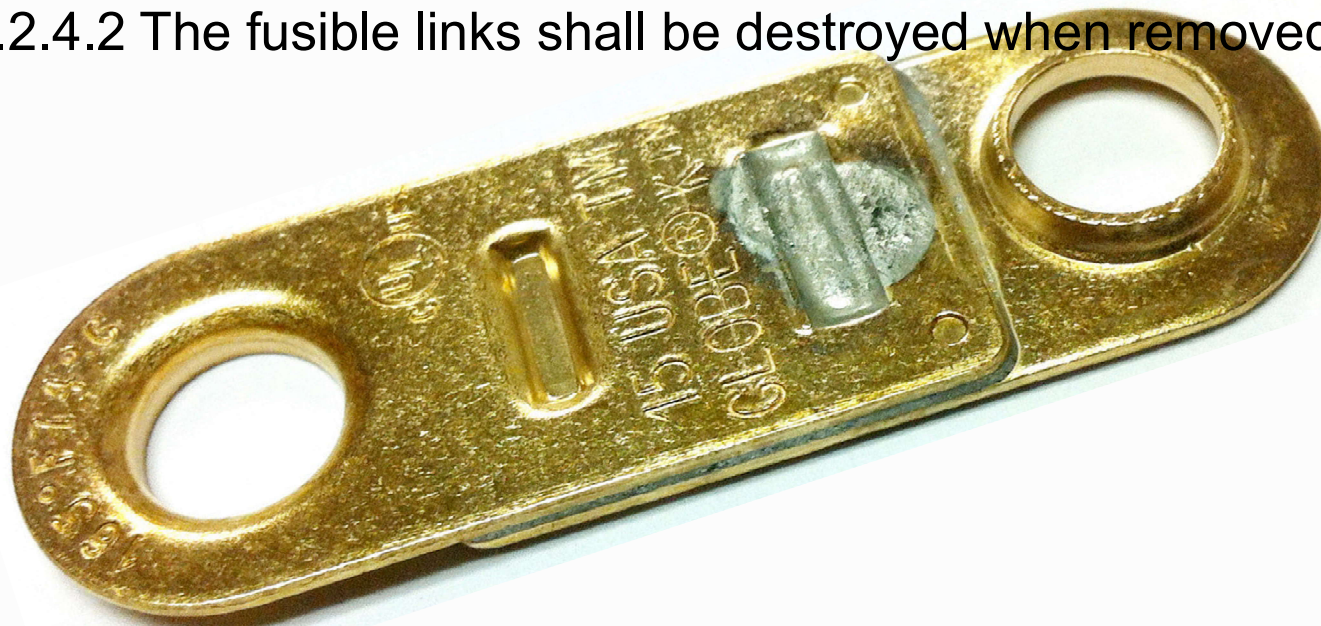
# NFPA 96 – Appendix B

B.11.2.3 Fusible links of the metal alloy type and automatic sprinklers of the metal alloy type shall be replaced at least semiannually.

B.11.2.4 The year of manufacture and the date of installation of the fusible links shall be marked on the system inspection tag.

B.11.2.4.1 The tag shall be signed or initialed by the installer.

B.11.2.4.2 The fusible links shall be destroyed when removed.

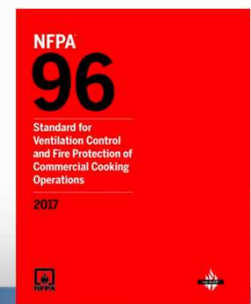


# NFPA 96 – Appendix B

## B.11.3 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 B.11.3.

***This section matches the 2020 Fire Code New York State Section 319.10.1 Exhaust system.***



# NFPA 96 – Appendix B

## B.11.5 Cooking Equipment Maintenance.

B.11.5.1 Inspection and servicing of the cooking equipment shall be made at least annually by properly trained and qualified persons.

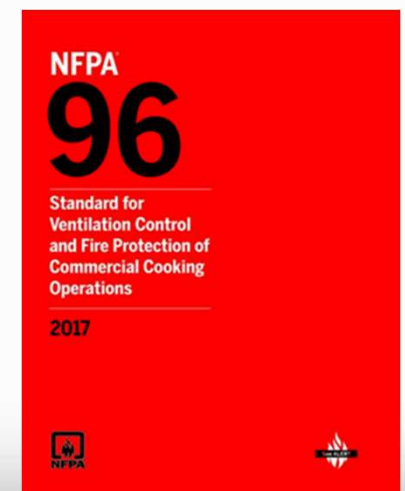
B.11.5.2 Cooking equipment that collects grease below the surface, behind the equipment, or in cooking equipment flue gas exhaust, such as griddles or charbroilers, shall be inspected and, if found with grease accumulation, cleaned by a properly trained, qualified, and certified person(s) acceptable to the authority having jurisdiction.



# NFPA 96 – Appendix B

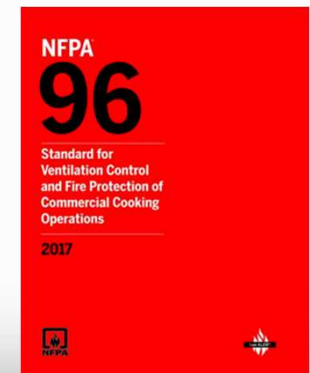
## B.12 Carbon Monoxide Detectors.

B.12.1 If the heat source is nonelectric and open flames are used, at least one listed carbon monoxide detector shall be installed.



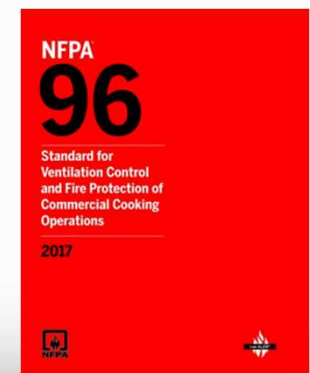
## B.13 Location of Mobile and Temporary Cooking Operations.

B.13.1 Relative to Buildings. Mobile or temporary cooking operations shall be separated from the entrances and other exits of buildings or structures, combustible materials, vehicles and other cooking operations by a clear space distance of 3 m (10 ft).



## B.13 Location of Mobile and Temporary Cooking Operations.

B.13.2 Relative to Other Mobile or Temporary Cooking. Mobile or temporary cooking operations shall be separated from other mobile or temporary cooking operations by a clear distance of 3 m (10 ft).



# Parking

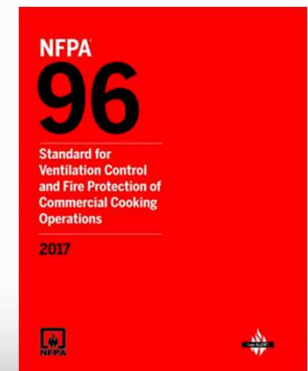
Each jurisdiction may regulate parking, and separation between food trucks at each event.





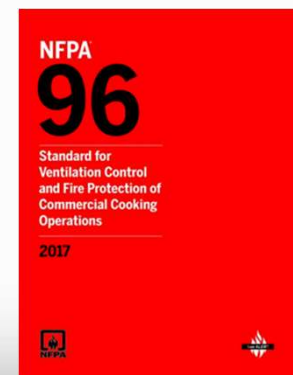
## B.13 Location of Mobile and Temporary Cooking Operations.

B.13.3 When the mobile unit is parked, the vehicle shall be stabilized so that it will not move, either by jacking the vehicle or placing wheel chocks around the wheels.



# NFPA 96 – Appendix B

B.15.6 The address of the current operational location shall be posted and accessible to all employees..

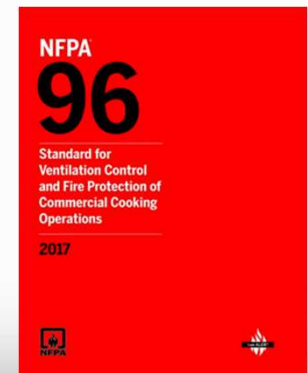


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## B.15 Training.

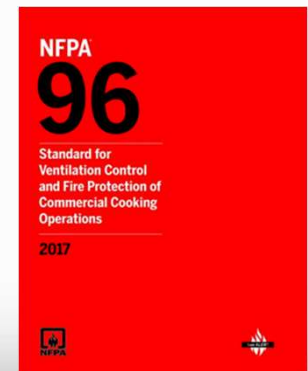
B.15.1 Prior to performing cooking operations, one worker shall be provided with initial training in emergency response procedures including the following:

- (1) Using portable fire extinguishers and extinguishing systems
- (2) Shutting off fuel sources
- (3) Notifying the local fire department
- (4) Refueling internal combustion engine power sources and LP-Gas container change-out
- (5) Performing leak detection of LP-Gas
- (6) Understanding fuel properties



# NFPA 96 – Appendix B

B.15.2 During the time of cooking operation at least one person in the vehicle shall be trained to provide the functions listed in B.15.1.

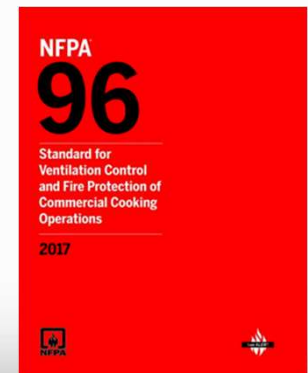


# NFPA 96 – Appendix B

B.15.3 The provision of training shall be the responsibility of the owner, and the training program and materials shall be acceptable to the AHJ.

B.15.4 Refresher training shall be provided annually.

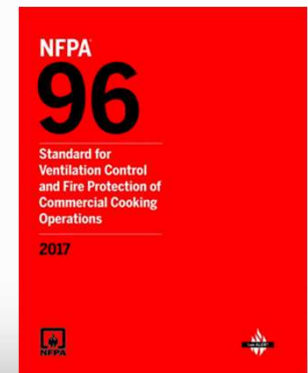
B.15.5 Initial and refresher training shall be documented, and the documentation shall be held in the mobile unit and made available to the AHJ upon request.



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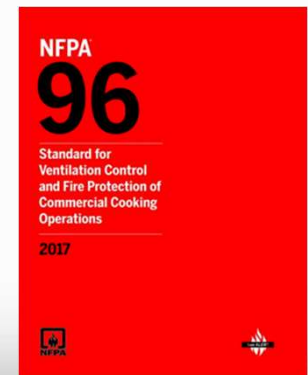
B.16 16 Internal Combustion Engine Power Sources.

B.16.2 Generator units that are not vehicle-mounted while in use shall meet the requirement of B.16.2.1 through B.16.2.3.



# NFPA 96 – Appendix B

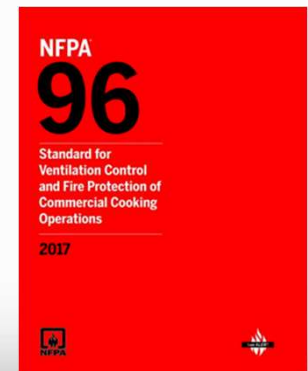
B.16.2.1 Internal combustion engine power sources shall be located at least 4 m (12 ft) from mobile or temporary cooking operations.



# NFPA 96 – Appendix B

B.16.2.2 Internal combustion engine power sources shall be isolated from physical contact by the installation of physical guards, fencing, or an enclosure.

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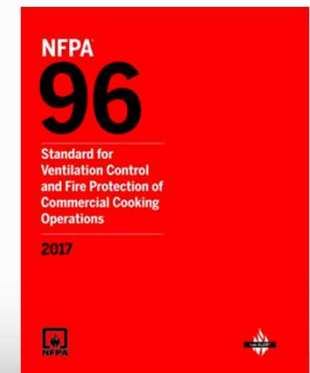




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B.16.2.3 Internal combustion engine power sources shall be positioned so that the exhaust complies with the following:

- (1) Located at least 4 m (12 ft) from openings, air intakes, and means of egress
- (2) In a position pointed away from any building
- (3) In a position pointed away from any mobile or temporary cooking operations

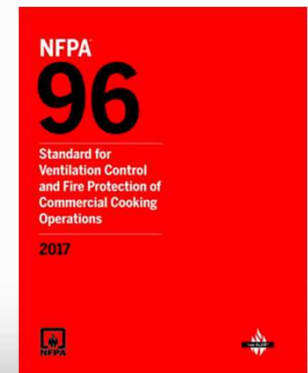


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## B.17 Vehicle-Mounted Generators.

B.17.1 Vehicle-mounted generators shall meet the requirements of B.17.2 through B.17.5.

B.17.2 Internal combustion engine–driven generator units (subject to the provisions of NFPA 1192) shall be listed and installed in accordance with the manufacturer's instructions and shall be vapor resistant to the interior of the vehicle.[1192:6.4.5.1]

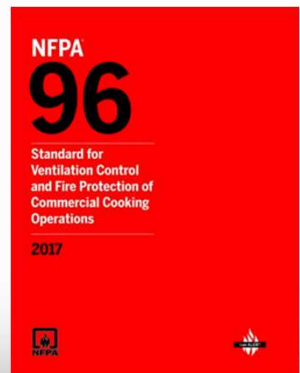


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B.19.3.1.2 LP-Gas containers installed on vehicles shall not exceed 0.8 m<sup>3</sup> (200 gal) aggregate water capacity

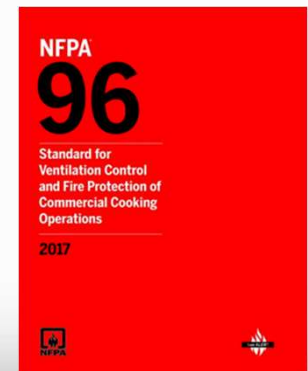


**Same quantity as  
IFC 319.8.1**



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B.19.3.2 Disconnected LP-Gas containers and LP-Gas cylinders for purposes other than engine fuel systems shall not be transported or stored inside the vehicle.





# FOOD TRUCK INSPECTIONS

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# MOBILE FOOD PREPERATION VEHICLES SAFETY CHECKLIST

## MOBILE FOOD PREPERATION VEHICLES SAFETY CHECKLIST



Town of Brighton  
Office of the Fire Marshal

March 2019

# QUESTIONS

