

Commercial Kitchen Systems

2025 California Fire Code — Sections 606, 901, 904.5, 904.14 & 906.4 | California Mechanical Code / Title 19

Purpose. Commercial cooking operations can produce grease-laden vapors and high-temperature cooking-oil hazards that require specialized ventilation and fire protection. This handout summarizes commonly applicable requirements for Type I hoods, automatic cooking fire-extinguishing systems, manual actuation, fuel and electrical interlocks, portable Class K extinguishers, hood and duct inspection/cleaning, testing, servicing, and related commercial kitchen fire-safety provisions.

1. When a Type I Hood and Fire-Extinguishing System Are Required

Commercial cooking equipment that produces grease-laden vapors must be provided with a Type I hood in accordance with the California Mechanical Code and an approved automatic fire-extinguishing system listed and labeled for the intended use.

- A Type I hood is required at or above commercial cooking appliances and domestic cooking appliances used for commercial purposes when the appliances produce grease vapors.
- Each required commercial kitchen exhaust hood and duct system that requires a Type I hood must be protected by an approved automatic fire-extinguishing system.
- The hood, duct, cooking appliances, extinguishing system, and associated equipment must comply with the California Fire Code, California Mechanical Code, applicable listings, manufacturer instructions, and referenced standards.

Common cooking equipment that can create grease-laden vapors includes fryers, griddles, charbroilers, ranges, woks, broilers, and similar commercial cooking appliances. Whether a specific appliance requires Type I exhaust is determined by the code, appliance listing, and the characteristics of the cooking process.

Code references: 2025 CFC §§606.1, 606.2, 904.2.2 and 904.14; 2025 California Mechanical Code, Chapter 5

2. Type I Hood Exceptions and Listed Alternatives

The 2025 CFC recognizes several listed or tested alternatives to a conventional Type I hood arrangement. These are narrow exceptions and must meet the applicable listing, testing, installation, and mechanical-code requirements.

Condition	Code Treatment
Factory-built commercial exhaust hood	A hood listed and labeled to UL 710 and installed in accordance with CMC §304.1 receives specified exceptions from certain prescriptive CMC hood provisions.
Factory-built recirculating system	A system listed and labeled to UL 710B and installed in accordance with CMC §304.1 receives specified exceptions from certain prescriptive CMC hood provisions. The space is still treated as a kitchen for ventilation purposes.
Listed integral downdraft exhaust	A separate hood above the appliance is not required where the appliance and integral downdraft exhaust are listed and labeled for the application in accordance with NFPA 96.
Certain electric cooking appliances	A Type I hood is not required where an approved testing agency documents appliance effluent of 5 mg/m ³ or less of grease when tested at 500 cfm in accordance with UL 710B.

Code reference: 2025 CFC §606.2, Exceptions 1–4

3. Approved Commercial Cooking Fire-Extinguishing Systems

For commercial cooking equipment that produces grease-laden vapors, the automatic fire-extinguishing system must be listed and labeled for the intended cooking hazard. The 2025 CFC recognizes the following system types for this application:

- Wet-chemical extinguishing systems complying with UL 300.
- Carbon dioxide extinguishing systems.
- Automatic fire sprinkler systems specifically designed and listed for the commercial cooking application.

All existing dry-chemical and wet-chemical commercial cooking extinguishing systems are required by CFC §904.14 to comply with UL 300. New wet-chemical systems must also comply with the applicable NFPA 17A requirements, California Title 19 requirements, the system listing, and manufacturer instructions.

Factory-built commercial cooking recirculating systems tested in accordance with UL 710B may qualify for the code exception when listed, labeled, and installed in accordance with the California Mechanical Code.

Code references: 2025 CFC §§904.5 and 904.14; NFPA 17A; UL 300; UL 710B

4. Plans, Permits and Acceptance Testing

- A construction permit is required for installation of or modification to an automatic fire-extinguishing system other than an automatic sprinkler system. Maintenance performed in accordance with the code is not considered a modification.

- Where an automatic sprinkler system is used for commercial cooking protection, installation or modification of the sprinkler system requires a construction permit.
- The fire code official may require construction documents and calculations, and required fire-protection plans must be submitted for review and approval before installation.
- Before final approval, the installing contractor can be required to furnish a written statement that the system was installed in accordance with approved plans and tested in accordance with the applicable standard and manufacturer requirements.
- Required systems are subject to acceptance testing before occupancy or final approval.

Code references: 2025 CFC §§105.1.1, 105.6.1, 105.6.2, 901.2, 901.2.1, 901.5 and 904.4

5. Automatic and Manual System Actuation

Commercial cooking fire-extinguishing systems must actuate automatically. Except where specifically exempted, a manual means of actuation must also be provided.

Manual Actuation Requirement	2025 CFC Requirement
Location	At or near a means of egress from the cooking area.
Distance from kitchen exhaust system	Not less than 10 feet and not more than 20 feet.
Mounting height	Not less than 42 inches and not more than 48 inches above the floor.
Identification	Must clearly identify the hazard protected.
Maximum operating force	40 pounds.
Maximum movement to actuate	14 inches.

Automatic sprinkler systems used for commercial cooking protection are not required to have the manual actuation means described above. Where the 10- to 20-foot manual-station location is not feasible, the fire code official may approve another unobstructed location at or near the cooking-area means of egress and in view from it.

Code references: 2025 CFC §§904.3.2 and 904.14.1

6. Fuel and Electrical Shutoff / System Interconnection

- Actuation of the commercial cooking fire-extinguishing system must automatically shut down the fuel or electrical power supply to the protected cooking equipment.
- Reset of the fuel and electrical supply must be manual after system actuation.
- Where a building fire alarm system is installed, the automatic fire-extinguishing system must be monitored by the building fire alarm system in accordance with NFPA 72.
- Required notification appliances and connections to fire alarm or supervising systems must be tested to verify proper operation.

Code references: 2025 CFC §§904.3.5, 904.4.2, 904.4.3 and 904.14.2; NFPA 72

7. Hood Ventilation, Grease Filters and Grease Extractors

- The ventilation system serving the hood must operate at the required rate of air movement while cooking equipment under the grease hood is used.
- Grease filters must be listed and labeled in accordance with UL 1046 and must be in place when equipment under a kitchen grease hood is used.
- Where grease extractors are installed, they must operate when the commercial cooking equipment is used.
- Commercial kitchen exhaust hoods must also comply with the California Mechanical Code.

Code references: 2025 CFC §§606.1, 606.3.1 and 606.3.2; UL 1046; California Mechanical Code

8. Hood and Duct Inspection Frequency

Hoods, grease-removal devices, fans, ducts, and related appurtenances must be inspected by qualified individuals at the following intervals, unless the fire code official approves a different interval:

Type of Cooking Operation	Inspection Frequency
High-volume operations such as 24-hour cooking, charbroiling or wok cooking	Every 3 months
Low-volume operations such as places of religious worship, seasonal businesses and senior centers	Every 12 months
Operations using solid-fuel-burning cooking appliances	Every 1 month
All other cooking operations	Every 6 months

Code reference: 2025 CFC §606.3.3.1 and Table 606.3.3.1

9. Hood and Duct Cleaning, Records and Service Tags

- If an inspection finds grease accumulation in hoods, grease-removal devices, fans, ducts, or other appurtenances, the affected components must be cleaned in accordance with ANSI/IKECA C10.
- Inspection records must identify the individual and company performing the inspection, describe the inspection, and state when it occurred.
- Cleaning records must identify the individual and company performing the cleaning and state when it occurred.
- Inspection and cleaning records must be completed after each service and maintained.
- After a commercial kitchen hood or duct system is inspected, a conspicuous tag must identify the service provider name, address, telephone number, and date of service. Prior tags must be covered or removed.

Code references: 2025 CFC §§606.3.3.2, 606.3.3.3 and 606.3.3.3.1; ANSI/IKECA C10

10. Fire-Extinguishing System Inspection, Testing and Service

Automatic fire-extinguishing systems protecting commercial cooking systems must remain operative and must be inspected, tested, serviced, and maintained in accordance with the CFC, California Code of Regulations Title 19, the applicable NFPA standard, the system listing, and manufacturer instructions.

- Wet-chemical systems must be inspected and tested for proper operation at six-month intervals.
- Commercial cooking fire-extinguishing systems must be serviced not less frequently than every six months and after activation of the system.
- The six-month system test includes the detection system, alarms, releasing devices, manual stations, and other associated equipment, as applicable.
- Inspection/service must be performed by qualified individuals, and a certificate of inspection must be forwarded to the fire code official upon completion.
- Fusible links and automatic sprinkler heads used in these systems must be replaced annually. Frangible bulbs are not required to be replaced annually.
- Other protection devices must be serviced or replaced in accordance with the manufacturer's instructions.

Code references: 2025 CFC §§901.6, 904.5, 904.5.1 and 904.14.5–904.14.5.3; CCR Title 19, Division 1, Chapter 5; NFPA 17A

11. Changes to Cooking Equipment or Cooking Media

Changes to a commercial kitchen can affect whether the existing suppression system still protects the hazard for which it was designed.

- When cooking media changes, the extinguishing system must be evaluated for compliance with the current commercial cooking provisions.
- When cooking equipment is repositioned, the extinguishing system must be evaluated and modified as necessary so the protected hazard matches the system listing and design.
- When cooking equipment is replaced, the fire-extinguishing system must comply with the applicable provisions of CFC §§904.14 through 904.14.4.
- Moving an appliance away from its listed nozzle coverage, changing fryer size, or replacing one cooking appliance type with another can require system redesign or modification.

Code reference: 2025 CFC §904.14.5.1

12. Class K Portable Fire Extinguishers

Portable extinguishers for cooking hazards must be compatible with the installed automatic fire-extinguishing system agent. Cooking involving solid fuels or vegetable or animal oils and fats requires Class K protection.

- A required portable extinguisher must be located within 30 feet travel distance of commercial cooking equipment.
- Class K extinguishers are required where there is a potential for fires involving combustible cooking media such as vegetable or animal oils and fats.
- Additional extinguishers for other fire classes must also be provided as required for the building and occupancy.

Cooking Hazard	Minimum Class K Provision
Solid-fuel cooking appliance with firebox 5 ft³ or less	One 2.5-gallon Class K wet-chemical extinguisher, or two 1.5-gallon Class K wet-chemical extinguishers.
Up to four deep-fat fryers, each with cooking-medium capacity not over 80 lb	One listed Class K extinguisher with minimum 1.5-gallon capacity.
Each additional group of up to four such fryers	One additional listed Class K extinguisher with minimum 1.5-gallon capacity.
Individual fryer exceeding 6 ft² surface area	Class K extinguishers installed in accordance with the extinguisher manufacturer's recommendations.

Code references: 2025 CFC §§906.1 Item 2, 906.4, 906.4.1 and 906.4.2; CCR Title 19, Division 1, §573

13. Gas-Fired Cooking Appliances on Casters

- Gas-fired commercial cooking appliances installed on casters, and appliances moved for cleaning or sanitation, must use an appliance connector listed to ANSI Z21.69/CSA 6.16.
- The connector must be installed in accordance with the manufacturer's instructions.
- Movement of the appliance must be limited by a restraining device installed in accordance with the connector and appliance manufacturer's instructions.

Code reference: 2025 CFC §606.4; ANSI Z21.69/CSA 6.16

14. Special Provisions for CO₂ and Sprinkler Cooking Systems

- Where carbon dioxide is used, CFC §904.14.3 contains specific duct-nozzle, damper, system-sizing, and ventilation-shutdown requirements.
- Where an automatic sprinkler system protects commercial cooking equipment, it must be supplied from a separate identified indicating-type control valve with access provided.
- Sprinklers protecting fryers must be tested in accordance with UL 199E, listed for that application, and installed in accordance with their listing.

Code references: 2025 CFC §§904.14.3, 904.14.3.1, 904.14.4 and 904.14.4.1; UL 199E

15. Commercial Kitchen Compliance Check

- ☐ Cooking appliances that produce grease-laden vapors are provided with the required Type I hood or a specifically permitted listed/tested alternative.
- ☐ The hood and duct system is protected by an approved automatic fire-extinguishing system.
- ☐ Wet-chemical protection complies with UL 300 and applicable NFPA 17A / Title 19 requirements.
- ☐ Required plans and permits were approved before installation or modification.
- ☐ The system automatically actuates and the manual actuation device is properly located, mounted, identified, and unobstructed.
- ☐ Suppression-system actuation automatically shuts down fuel or electrical power to the protected cooking equipment; reset is manual.
- ☐ Where a building fire alarm system is installed, the cooking suppression system is properly monitored.
- ☐ Ventilation operates while cooking equipment is used; listed grease filters are installed and grease extractors operate where provided.
- ☐ Hood/duct inspections are current for the type and volume of cooking operation.
- ☐ Grease accumulation has been removed and cleaning/inspection records and service tags are current.
- ☐ The cooking fire-extinguishing system has been serviced within the required six-month interval and after any activation.
- ☐ Annual fusible-link/sprinkler-head replacement requirements are current, except where the frangible-bulb exception applies.
- ☐ Any changes in appliances, appliance position, or cooking media have been evaluated against the suppression-system design and listing.
- ☐ Required Class K extinguishers are present, correctly sized, accessible, and within 30 feet travel distance.
- ☐ Gas appliances on casters have listed flexible connectors and required restraining devices.

Applicable Code and Standard References

- 2025 California Fire Code, Title 24, Part 9 — §§105.6.1–105.6.2, 606.1–606.4, 901, 904.2.2, 904.5, 904.14 and 906.1/906.4.
- 2025 California Mechanical Code, Title 24, Part 4 — commercial kitchen hood ventilation and exhaust provisions in Chapter 5.
- California Code of Regulations, Title 19, Division 1, Chapter 5 — automatic fire-extinguishing system inspection, testing and maintenance.
- NFPA 17A — Standard for Wet Chemical Extinguishing Systems (2024 edition, as applicable/adopted).
- NFPA 96 — Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations (2024 edition, as applicable/adopted).
- NFPA 72 — National Fire Alarm and Signaling Code, where cooking suppression monitoring interfaces with a building fire alarm system.
- UL 300 — Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment.
- UL 710 / UL 710B — commercial cooking exhaust hoods and recirculating systems.
- UL 1046 — grease filters for exhaust ducts.
- ANSI/KECA C10 — cleaning of commercial kitchen exhaust systems.
- ANSI Z21.69/CSA 6.16 — connectors for movable gas appliances.
- UL 199E — sprinklers for protection of cooking equipment, including listed fryer applications.

This handout is a public-information summary. The adopted California codes, referenced standards, approved plans and equipment listings, local amendments, and determinations of the applicable code official govern.