NEW YORK CITY FIRE DEPARTMENT
FIRE CODE REVISION PROJECT

Highlights of 2022 New York City Fire Code

Effective Date April 15, 2022

This document highlights the amendments to the New York City Fire Code enacted by Local Law No. 47 of 2022 and reflected in the 2022 New York City Fire Code that the Fire Department deems to be the most significant and/or likely to be of interest. Please refer to the text of the Fire Code for full details.

General

Renumbering of Sections

- Renumber all Fire Code (FC) chapters and sections, starting with FC Chapter 11, to conform to International Fire Code format adopted with the 2012 edition.
- The following nineteen FC Chapters were re-numbered without any material changes: FC Chapters 7, 20, 25, 26, 29, 30, 31, 34, 36, 37, 55, 59, 60, 62, 63, 64, 65, 66 and 67.
- The following FC Chapters were reserved for future use, consistent with the International Fire Code format: FC Chapters 11-19, 38-39, 41-49, 52 and 68-79.

Consolidation of Definitions

- Consolidate all definitions in FC Chapter 2, to conform to International Fire Code format. Retain in the second section of each chapter a list of terms defined in FC Chapter 2. (Currently, defined terms are listed in Chapter 2 but most definitions are set forth in individual Fire Code chapters.)

Chapter 1 (Administration)

FC 104.2.1 (Acceptance of professional certification)

- In addition to registered architects and professional engineers, allow certified fire alarm installers and licensed electricians to professionally certify additions and modifications to fire alarm systems (non-core components) to enable the Department to better manage its fire alarm system inspection and approval process.

FC 105.1.2 (Types of permits)

- Transportation permits (for hazardous materials) eliminated pursuant to Federal regulatory ruling.
- Citywide permit expanded to incorporate transportation of hazardous material.

FC 105.4 (Design and installation documents)

- List in alphabetical order design and installation documents required to be filed for Fire Department approval.
- Update list of design and installation documents to include the following systems, installations and facilities**:**
    - ARC systems (FC510) (existing requirements from rules)
    - Automated parking garages (FC611)

    - Distilleries (FC Chapter 40)
    - Repair garages for vehicles fueled by lighter-than-air motor fuels (FC 2301)
    - Rooftop access (FC 504)
    - Stationary energy storage systems (FC608) (in part, existing requirements from rules)
- Revise FC105.4.4.4 to provide for conditional approval of design and installation documents, with commencement of the work contingent on department issuance of a project authorization following submission of contractor licensing information and such other information and documentation as may be required in accordance with FC105.4.4.1.

FC 105.6 (Required permits)

- New permit requirements for the following materials, operations and facilities:
    - Automotive salvage and wrecking facilities.
    - Establish and operate a distillery.
    - Hot work permit for use of any open flame in a torch-applied roof system and public demonstration of hot work, other than in an accredited educational institution or program.
    - Hot work permits for flammable gas without oxygen and electric arc systems limited to construction sites where a DOB work permit is required (not mobile uses).
    - Establish and operate a hydrogen fuel gas room.
- Revise existing permit requirements for the following materials, operations and facilities:
    - Alcohol-based hand rubs (clarify and distinguish between consumer product and bulk packaging) (consistent with current guidance).
    - Auxiliary radio communication (ARC) systems (existing requirements from rules).
    - Carbon dioxide (storage of more than 3500 SCF in a low-pressure carbon dioxide beverage dispensing system).
    - Fleet fueling (from existing Fire Department practice).
    - Gasoline (storage and use in quantities exceeding 2½ gallons in a single item of lawfully stored portable fueled equipment, or an aggregate of 10 gallons in all such portable fueled equipment stored at a premises) (FC313).
    - Special effects (FC Chapter 56).
    - Stationary energy storage systems (FC608) (in part from existing Fire Department rule 3 RCNY 608-01).

FC 107 (Maintenance)

- Reorganize/clarify maintenance and inspection requirements.
- Clarify the Fire Department's authority to require online electronic filing of maintenance records.

FC 111 (Order to Discontinue Work)

- Clarify the Department's authority to order discontinuance of "work" by defining the term to include any regulated material, operation or facility.

FC 112 (Certificate of Approval**)**

- Consolidate the references to Certificate of Approval requirements currently set forth throughout the Fire Code.
- Incorporate into Fire Code Certificate of Approvals for the following regulated materials and installations:
    - Stationary energy storage systems (storage battery unit and mobile systems) (from existing Fire Department rule 3 RCNY 608-01 and proposed FC608).
    - High and/or low explosive products, devices, and firing systems in connection with blasting (from existing Fire Department practice).
    - Commercial cooking exhaust systems emission control devices and ductless hoods (from existing Fire Department practice).
- Require Certificates of Approval for the following regulated materials and installations:
    - Radio consoles and base stations for in-building auxiliary radio communication systems (FC510).
    - Distillery stills (FC4004).
- Require copy of Certificate of Approval to be maintained at the premises for review by persons installing, operating or maintaining the approved equipment, and Department representatives.

Chapter 2 (Definitions)

- New and revised definitions, including:
    - Approved testing laboratory
    - Automated container exchange system
    - Binary explosive, a regulated type of explosive
    - Blast monitoring certificate and other terms relating to blasting operations and blast vibration monitoring equipment and operations
    - Chemical storage building
    - Class I (flammable liquids)
    - Combustible gas detector
    - Commercial kitchen and other terms relating to commercial cooking operations and equipment
    - Dedicated use building
    - Deflagrable wood dust
    - Distillery and other terms relating to distillery materials, operations and facilities
    - Domestic cooking system
    - Encapsulation (high-piled combustible storage)
    - Energy storage system and other terms relating to battery technology
    - Fire drill
    - Fire pump
    - Gaseous hydrogen
    - High-rise megastructure (high-rise buildings with an occupied floor 800 or more feet above the lowest floor of fire apparatus access)
    - Hot tapping (repairs on fuel storage tank)
    - Hydrogen fuel gas room
    - Hyperbaric facility
    - Natural vegetation
    - Open flame
    - Powered mobility devices

- Special effects, pyrotechnic special effects and other terms relating to special effects materials and operations
- Staged evacuation (buildings with fire alarm systems programmed to alert on (evacuate) designated floors rather than the entire building)
- Traffic calming devices.

Chapter 3 (General Precautions Against Fire)

FC 308 (Open Flames)

- Reorganize the open flame provisions to clarify the distinction between open flames, open flame devices and portable fueled equipment, including torches.
- Extend open flame fire safety requirements to non-assembly occupancies to incorporate common-sense fire safety precautions designed to reduce the incidence of fires.
- Regulate use of alcohol-fueled decorative devices to address fire safety hazards associated with the devices.
- Reorganize and revise the requirements for preparation and serving of flaming food and beverages in assembly occupancies.

FC 309 (Powered Industrial Trucks, Equipment and Mobility Devices)

- Reorganize section to clarify the applicability of the various provisions of the section to the respective types of powered equipment.
- Adopt Referenced Standards and other new requirements to address the charging and storage of e-bikes, scooters and other powered mobility devices, including:
  - Adoption of Underwriters Laboratory (UL) standards for charging equipment.
  - Fire safety regulations for rooms in which 6 or more powered mobility devices are being charged. Exemption for up to five powered mobility devices in a residential dwelling unit.
  - Fire safety regulations in which six or more powered mobility devices are being stored but not charged.

FC 310 (Smoking)

- Prohibitions (FC 310.2)
  - Reference FC Chapter 28 prohibition on smoking in lumber yards and woodworking facilities.
- Non-tobacco hookah establishments (FC 310.7)
  - Revise the requirements for hookah charcoal storage in non-tobacco hookah establishments to reference the new Fire Code solid fuel storage provisions.
  - Revise the requirements for charcoal preparation in non-tobacco hookah establishments to incorporate existing charcoal preparation practices.

FC 312 (Vehicle Impact Protection)

- Revise design requirements for vehicle impact protection barriers to allow them to be designed consistent with anticipated impact scenarios.
- Require removable posts and other barriers where fire apparatus access would be obstructed or impeded.

FC 314 (Indoor Displays)

- Revise safeguards for indoor display of motor vehicles, including adoption of appropriate safeguards for electric vehicles.

FC 315 (Combustible Materials Storage and Other Storage Hazards)

- Clarify that combustible materials must be stored in a stable manner.
- Authorize the Fire Department to allow storage of noncombustible materials to the ceiling when such storage is within 30 inches of a fire partition.
- Clarify and revise the restrictions on storage of solid fuel combustibles, including wood and charcoal used in restaurants and non-tobacco hookah establishments.
- Expand the locations in which solid fuel can be stored indoors and outdoors in suitable containers, storage cabinets and/or sprinklered spaces.
- Limit indoor storage of solid fuel in Group R-2 occupancies.
- Prohibit combustible storage (including abandoned wiring) in ceiling plenum spaces.

FC 317 (Automotive Salvage and Wrecking Facilities)

- Establish permit requirement for automotive salvage and wrecking establishments.
- Establish new storage and disposal requirements for waste airbags, consistent with Federal and State regulations.

Chapter 4 (Emergency Planning and Preparedness)

FC401 (General)

- Eliminate Fire Department communications (dispatch) office telephone number lobby signage, rendered unnecessary by the universal use of 911.
- Authorize posting of designated telephone number for reporting of emergencies occurring in or affecting the building or occupancy.
- Authorize multi-building campus emergency preparedness plans for educational and health care occupancies.
- Revise plan/staffing/filing requirements for emergency preparedness plans to distinguish between high-rise/large-area buildings with staged evacuation and those without (rather than distinguishing between them on voice communication capability only).
- Require FEP (Level 2) plan and staffing requirements for ambulatory care facilities now classified under the Building Code as Group B (office) occupancies.
- Address electronic filing of emergency preparedness plans required to be filed.
- Restore (consistent with existing practice) separate fire and non-fire emergency drills.

FC 405 (Hotels, Motels and Other Transient Residential Occupancies)

- Clarify roles of FEP coordinator and shelter coordinators in homeless shelters.

FC 406 (Apartment Buildings)

- Require FEP (Level 2) plan for Group R-2 occupancies in high-rise megastructures.
- Require fire drills in high-rise megastructures.
- Reduce (from 150 feet to 125 feet) height of buildings required to file non-sequential floor filing, to conform to other standards applicable to buildings of that height.
- Require co-op/condo residents cooperate with fire safety notice enforcement by co-op/condo boards (from existing Fire Department rule 401-06).

FC 410 (Educational Occupancies)

- Require FEP (Level 2) plan for large-area Group B educational building (as well as high-rise buildings).
- Require FEP (Level 2) plan for low-rise Group E educational buildings (as well as high-rise buildings).
- Require emergency preparedness plan for high-rise Group B educational buildings, Group R-1 dormitories, and Group R-2 student apartments, based on staged evacuation not voice communication capability. Require comprehensive fire safety/emergency action plan for such high-rise buildings with staged evacuation.
- Require drills in Group R-2 student apartments, consistent with Building Code fire alarm system requirements for such occupancies and the New York State Education Law.

Chapter 5 (Fire Operations Features)

FC 503 (Fire Apparatus Access)

- Require approved signage or markings and otherwise address the impact on firefighting operations of traffic calming devices installed on private roads providing fire apparatus access.
- Eliminate the exception from the turnaround requirement on dead-end streets more than 150 feet (but less than 400 feet) in length.
- Authorize the Fire Department to approve alternative design solutions when developers are unable to provide an approved turnaround on dead-end streets.

FC 504 (Building and Rooftop Access)

- Clarify requirements for rooftop access and rooftop landing areas, including addressing high parapets, parapet railing construction and wind turbine installations, to facilitate firefighting operations. Parapet railing requirements applicable to newly-constructed buildings and newly-permitted installations after the effective date of the local law.
- Clarify clear path requirements on existing buildings, including prohibiting glass surfaces in the clear path and referencing existing rooftop energy storage system requirements. Require on newly-constructed buildings, to the maximum extent practicable, reasonable access from the clear path to windowed areas on any side of the building that is not fire apparatus accessible.
- Establish rooftop clearance requirements for firefighting operations where new buildings are constructed above or cantilevered over existing buildings.
- Incorporate into Fire Code existing Fire Department interpretation applying the pitched roof provisions of FC512 to one and two-family homes with shallow-pitched roofs, and exempting such buildings from rooftop access requirements.
- Clarify requirements for rooftop transmitting antenna markings for transmitters that are enclosed or fenced.
- Require transmitting antennas to comply with radiofrequency radiation exposure limits established by the Federal Communications Commission in rooftop access, landing, clear path and clearance areas and other rooftop areas to which the general population has uncontrolled access.
- Require submission, in connection with rooftop access applications and upon request in connection with rooftop access inspections, of Certification of Compliance by a qualified person trained and knowledgeable in the measurement of Federal Communications Commission radiofrequency exposure limits.

- Require that rooftop building features be maintained in good working order to facilitate firefighting operations.
- Require on newly-constructed buildings more than 100 feet in height, to the maximum extent practicable, a clear path from the bulkhead or other point of rooftop access to the rooftop perimeter on any side of the building that has windows.

FC 506 (Keys and Key Access)

- Clarify access restrictions and installation requirements for fire department standard keys.

FC 510 (In-Building Auxiliary Radio Communications Systems)

- Existing Fire Code requirements moved to FC510 to conform to International Fire Code format.

FC 511 (High-Rise Megastructure Fire Operations)

- Establish design and operational requirements to facilitate firefighting operations in all high-rise megastructures, including apartment (Group R-2) buildings:
  - FEP (Level 2) plan and building identification card for Group R-2 occupancies.
  - Standpipe elevation markings to assist in identification of actual floor elevation for firefighting operations.
  - Fire Department storage rooms on upper floors for pre-positioned department equipment. (This requirement is subject to adoption of a zoning provision exempting the floor space for such storage rooms from floor area ratio requirements.)
- Establish by rule new design, installation and operational measures to facilitate rescue operations in blind hoistways 36 feet (10 973 mm) or more in height in high-rise megastructures.

FC 512.2 (Flat-roofed buildings and structures 100 feet or less in height)

- Incorporate into Fire Code existing Fire Department guidance allowing permanent building features (including attic ventilators, bulkheads, chimneys, hatches, plumbing ventilations pipes, scuttles, skylights, and roof-mounted heating, ventilation and air conditioning equipment) to encroach on clear path up to two feet on brownstones and other small buildings to facilitate solar panel installation.

Chapter 6 (Building Services and Systems)

FC 603.9.2 (Gas meter identification)

- Require identification of the apartment, dwelling unit, or other occupancy or area served by gas meters, by signs or markings, to facilitate firefighting operations.

FC 606 (Refrigerating Systems)

- Adopt as Referenced Standards International Institute of Ammonia Refrigeration (IIAR) standards for design, installation, operation and maintenance of ammonia refrigerating systems.

FC 607.5 (Water protection of hoistway enclosures)

- Require maintenance of Department of Buildings-approved building design features intended to provide water protection for elevator hoistways for fire service access elevators and occupant evacuation elevators.

FC 608 (Stationary Energy Storage Systems)

- Comprehensively revise FC608 to establish a regulatory framework for stationary energy storage systems (including mobile, emergency power and uninterruptible power supply systems) that addresses the fire safety hazards associated with existing and new battery technologies.
- Allow indoor systems and establish design, installation, operation and maintenance requirements for such installations. Establish separate requirements for indoor systems in Group R-3 occupancies (one and two family homes).
- Incorporate into Fire Code design, installation, operation and maintenance requirements for outdoor systems (from existing outdoor system rule 3 RCNY 608-01).
- Require a permit for all indoor systems (except systems with aggregate rated energy capacity of 40 kWh or less serving Group R-3 occupancies); and for all outdoor systems more than 20 kWh.
- Require a Fire Department Certificate of Approval (equipment approval) for all indoor and outdoor storage battery units (to evaluate test results and assess hazards), consistent with existing requirements for outdoor systems. The Certificate of Approval may authorize below-grade installations, indoor installations in Group R-3 occupancies, and certain other installations based on full-scale testing data.
- Adopt listing and testing standards, including Underwriters Laboratories (UL) UL9540 and UL9540A, to allow evaluation of hazards and design solutions, consistent with existing requirements for outdoor systems. Allow Certificate of Approval consideration of systems listed under 2016 edition prior to effective date of new Fire Code. if the listing is still valid and full-scale testing was conducted as required by FC608.4.2. Allow a system issued a Certificate of Approval under a listing standard superseded by a later edition may continue to be operated under such listing standard and department Certificate of Approval if the listing is still valid, subject to FC102.5.
- Require general supervision of such systems by Certificate of Fitness holder, except for indoor systems with an aggregate rated energy capacity of 1 MWh or more, which would require on-site personal supervision during regular business hours by a FLS director, refrigerating system operating engineer or other responsible person with approved qualifications.
- For indoor systems, require Fire Department installation (plan) review and approval for unapproved equipment, fire protection systems and other installation requirements normally reviewed by the Fire Department, with Department of Buildings review of battery room construction and indoor system installation. Continue to review and approve outdoor systems in accordance with the existing outdoor systems rule.
- Regulate indoor building location and generating capacity of indoor systems in a manner similar to hazardous materials storage:
    - Maximum allowable quantity (MAQ) of energy capacity per control area.
    - Maximum 400 kWh per control area for lithium-ion and certain other battery technologies; 600 kWh for lead-acid batteries and most nickel-based systems.
    - Up to four control areas (battery rooms) allowed on Floor 1; three on Floor 2; two on Floors 3 to 9; and one on all floors above Floor 9; keeping indoor energy storage systems accessible for firefighting operations.
    - No below grade installations except as authorized by the Department for dedicated use buildings or as otherwise approved by Certificate of Approval.

- Regulate outdoor locations in accordance with existing outdoor systems rule. Outdoor system generating capacity is limited only as set forth in the equipment or installation approval or as prescribed by rule.
- Indoor design and installation requirements, including the following requirements (certain exemptions apply to lead-acid and nickel-cadmium energy storage systems and, where authorized by the Certificate of Approval, other battery systems, that power building fire and life safety systems and business operations):
    - Control areas (battery rooms) designed as high-hazard occupancies with NFPA 15-compliant sprinkler systems.
    - Buildings must be fully sprinklered.
    - Building must be of non-combustible construction in Group A, R-1, R-2, and I-1 occupancies.
    - Fire protection systems/measures, explosion mitigation, ventilation system, spill containment and emergency power.
    - Remotely-monitored battery management systems.
    - Battery room design and construction requirements to be adopted by Department of Buildings.
- Design and installation requirements for outdoor systems as set forth in the existing outdoor systems rule.
- Commissioning/decommissioning requirements consistent with existing outdoor rule.
- Operational/maintenance requirements consistent with existing outdoor rule, including development of an emergency management plan coordinated among owner, manufacturer and installer.
- Exempt from FC608 design and installation requirements lead-acid and nickel-cadmium energy storage systems with a maximum operating voltage of 50 AC/60 DC that supply emergency power, standby power or uninterruptible power to telecommunications equipment under the exclusive control of a telecommunications provider, when such systems are in compliance with the requirements of NFPA 855, as adopted and modified by the Department of Buildings, and NFPA 76.

- One and two-family homes regulated separately, including the following requirements:
    - Indoor systems allowed, but if in the dwelling unit itself must meet residential listing standard or be authorized by Fire Department Certificate of Approval.
    - Maximum rated energy capacity of any storage battery limited to 20 kWh, with aggregate energy capacity limited to 40 kWh (indoor systems excepted, unless authorized by Certificate of Approval).
    - No basement installations except as approved by the Fire Department or authorized by Certificate of Approval.
    - Allow installations outdoors, on rooftops, exterior walls and in attached and detached garages, subject to certain conditions.
    - General supervision required by Certificate of Fitness holder for all installations.
- Adopt selected design and operational requirements of NFPA 855 through Referenced Standard Modifications (FC Appendix B).

<u>FC 609 (Commercial Cooking Systems)</u>

- Reorganize and revise section to clarify requirements and reference fire extinguishing system requirements in FC Chapter 9.

- Adopt new or revised definitions, including "commercial kitchen" to clarify the application of the existing commercial cooking permit.
- Incorporate into the Fire Code the requirement of FDNY-issued proof of compliance to confirm periodic cleaning of commercial cooking exhaust system by company holding Fire Department certificate (from existing Fire Department rule 3 RCNY 115-02).
- Adopt ANSI/IKECA C10 as Referenced Standard for grease accumulation measurement standard.
- To reduce risk of commercial cooking grease fires, create a category of high-volume cooking and require inspection and cleaning once every three months, or as other otherwise required by rule. Owner cleaning of exhaust systems only if approved as cleaning company.
- Adopt NFPA 96 as Referenced Standard for use of solid fuel in commercial cooking (wood burning for flavor enhancement).
- Adopt new solid fuel storage requirements to expand storage options (in sprinklered storage rooms, in metal cabinets in sprinklered kitchens, or outdoors in metal cabinets).
- Reorganize and clarify inspection requirements.
- Incorporate into Fire Code Certificate of Approval requirement for emission control devices (including electrostatic precipitators) and ductless hoods.
- Reorganize and clarify required kitchen signage for staff training and firefighting purposes and require signage to identify precipitator type and location.
- Clarify cleaning requirements for commercial cooking appliances, including cleaning of ductless cooking appliances.
- Authorize the Fire Department to require additional access panels if necessary to perform adequate cleaning of commercial cooking exhaust system. The Fire Department will provide notice and opportunity to be heard to the owner, evaluate objections asserted on the basis on engineering considerations and impracticability, and address proposed alternatives.

<u>FC 610 (Commercial Kitchen Cooking Oil Storage Systems)</u>

- Adopt International Fire Code requirements for storage of fresh and waste cooking oil in commercial kitchens. Cooking oil has low flammability but storage systems heat waste oil to liquefy it for ease of handling.
- No storage permit required.
- Clarify that such systems are not subject to the stricter requirements of FC Chapter 57 generally applicable to flammable and combustible liquids.

<u>FC 611 (Automated Parking Garages)</u>

- Establish certain design and operational requirements for automated parking garages to facilitate firefighting operations, including:
  - Designating location of emergency shut-down switch and fire protection system control panels.
  - Notification of Fire Department prior to occupancy to allow familiarization.
  - Preparation of an automated parking garage information card.

<u>Chapter 8 (Interior Furnishings, Decorations and Scenery)</u>

- Clarify that certification of materials as flame-resistant or inherently flame-resistant must be by a Certificate of Fitness holder.

- Require maintenance of natural vegetation in buildings.
- Clarify that requirements for flame resistant decorations are applicable to specific occupancies set forth in FC805.
- Require that outdoor decorative installations more than 4 feet in height that are displayed in outdoor public assembly or public gathering spaces, or common areas in certain occupancies, be flame resistant.

Chapter 9 (Fire Protection Systems)

FC 901 (General)

- Clarify that references to fire alarm system throughout chapter includes emergency alarm systems (such as flammable gas and carbon monoxide detection systems).
- Update tables listing fire protection maintenance standards.
- Reorganize references to water supply connections (backflow preventers).
- Incorporate into Fire Code a reference to certification of correction of fire alarm system defects cited by Fire Department inspector (from existing Fire Department rule 3 RCNY 104-04).
- Conform sprinkler/standpipe recordkeeping requirements to NFPA 25 recordkeeping requirements, consistent with industry practice.
- Incorporate reference to Building Code exception allowing fire extinguisher system as alternative to sprinkler system.
- Require that non-sprinkler fire extinguishing systems be serviced by a DOB-licensed master fire suppression piping contractor holding a Certificate of Fitness or a person holding a Certificate of Fitness under the direct supervision of such contractor.
- Revise Fire Code provision requiring completion of fire protection systems prior to occupancy to conform to DOB practice. Require that fire protection systems be operational from the ground up to the occupied floor prior to issuance of a temporary certificate of occupancy, and require correction of any remaining noncompliant conditions upon occupancy.
- Require that a fire protection system rendered out of service and/or potentially damaged from exposure to fire or water or other cause be inspected to verify that the system is in good working order.
- Clarify that fire alarm system cannot be repeatedly taken out of service for extended periods of time without Fire Department notification.
- Clarify spare sprinkler head requirement.

FC 903 (Sprinkler Systems)

- Make mandatory for residential systems installation of inspector's test gauge, which is used for sprinkler flow inspections and testing.
- Update table listing Fire Code fire extinguishing system requirements.

FC 904 (Fire Extinguishing System)

- Reorganize and revise requirements for fire extinguishing system monitoring, testing and maintenance.
- Clarify and revise prohibitions on carbon dioxide, halon and certain clean agent fire extinguishing systems.

- Require five-year certification by a licensed master fire suppression piping contractor of non-sprinkler fire extinguishing systems (except commercial cooking fire extinguishing systems and domestic cooking fire extinguishing systems).
- Require all newly-installed indoor fire extinguishing systems (except commercial cooking, domestic cooking and spray finishing fire extinguishing systems) to be monitored by an approved central station company.
- Authorize water mist fire extinguishing system for commercial cooking applications.
- Require replacement of any remaining outdated dry chemical fire extinguishing systems for commercial cooking appliances with a type of fire extinguishing system complying with current Fire Code standards, a transition that began with the 2008 Fire Code.
- Require replacement of any remaining carbon dioxide fire extinguishing systems for commercial cooking appliances with a type of fire extinguishing system complying with current Fire Code standards, a transition that began with the 2008 Fire Code.
- Require replacement of wet chemical fire extinguishing systems installed before the modern UL300 standard with a type of fire extinguishing system complying with current Fire Code standards.
- Update the table listing fire extinguishing system Referenced Standards.
- Adopt new table for fire extinguishing system inspection, testing and maintenance schedule.

FC 905 (Standpipe Systems)

- To address the inconsistency between marketing floor numbers and actual floor elevations and facilitate calculation of water pressure for firefighting operations, require standpipe hose outlet elevation markings in buildings higher than 240 feet, and a chart listing the floor number and corresponding elevation above grade at the fire command center or other approved location.

FC 906 (Portable Fire Extinguishers)

- Update table listing portable fire extinguisher requirements.
- Require affixing proof of compliance on all fire extinguishers serviced by approved servicing companies.

FC 907 (Fire Alarm and Detection Systems)

- Reorganize and clarify Fire Code fire alarm system design and maintenance requirements.
- Update fire command center requirements (from existing Fire Department practices).
- Reference flood elevation requirements in connection with location of fire alarm system control panels.
- Require a printer at fire command center to facilitate review of alarm activation incident history by firefighting personnel.
- Require maintenance of documents and other items be kept at FCC to assist firefighting personnel.
- Require that notification shall be made to the department upon discontinuance, change of service provider or other change in service of central station monitoring.
- Require five year certification of fire alarm system operation and maintenance by a licensed or certified professional.

FC 908 (Emergency Alarm Systems)

- Clarify maintenance requirements for emergency alarm systems.
- Adopt new table listing required emergency alarms.
- Require five year certification of emergency alarm system operation and maintenance in the same manner as fire alarm systems.

FC 911 (Explosion Control)

- Update table to include energy storage systems in list of systems requiring explosion control.

FC 912 (Fire Department Connections)

- Reorganize and clarify outdoor standpipe connection signs and markings to facilitate firefighting operations.

Chapter 10 (Means of Egress)

FC 1027 (Maintenance of Means of Egress)

- Clarify that means of egress cannot be obstructed by noncombustible materials, as well as combustible materials.
- Require that security grilles for stores and other businesses remain open when occupied, except as authorized by Building Code.
- Allow storage in hospital (Group I-2) corridors of medical equipment needed to provide patient care, consistent with NFPA standards generally.
- Require monthly testing of egress illuminating equipment and annual testing of power source by qualified professionals, consistent with existing Fire Code requirements for testing of emergency power systems (as set forth in FC604.5).

Chapter 21 (Dry Cleaning)

FC 2108 (Fire Protection)

- Adopt modified sprinkler requirements (partial sprinkler protection) for lawful existing dry cleaning establishments undergoing alteration or replacement of equipment, including dry cleaners replacing perchloroethylene (PERC) equipment (currently allowed by variance). Continue to require full sprinkler protection of newly-established dry cleaning establishments.
- Allow lawful existing dry cleaning establishments with partial sprinkler protection (generally one or two sprinkler heads above dry cleaning equipment) to maintain existing sprinkler protection when replacing existing dry cleaning equipment with “inherently-safe” dry cleaning equipment (designed to prevent combustion and/or equipped with internal fire extinguishing capability), subject to solvent storage limitation (330 gallons for Type III-A or 660 gallons for Type III-B).
- Allow lawful existing dry cleaning establishments without sprinkler protection to install partial sprinkler protection (above dry cleaning equipment) when installing “inherently-safe” dry cleaning equipment, subject to solvent storage limitation.

Chapter 22 (Combustible Dust-Producing Operations)

- Adopt NFPA 652 and 664 as Referenced Standards to regulate combustible dust production in grain handling, milling and storage, powder coating, printing, woodworking operations and other facilities that generate such dust.
- Require dust hazard analysis in accordance with NFPA 652 for combustible dust-producing operations that generate visible atmospheric dust and/or dust accumulations, to determine whether the combustible dust poses an explosion hazard. Require installation of combustible dust collection equipment and/or other mitigation measures when such hazard is present.
- Update table listing combustible dust Referenced Standards.

Chapter 23 (Motor Fuel-Dispensing Facilities and Repair Garages)

FC 2306 (Design and Installation Requirements for Liquid Motor Fuel-Dispensing Facilities)

- Revise Fire Code requirements for aboveground motor fuel storage tanks, including:
    - Allow installation of 10,000 gallon aboveground diesel motor fuel storage tanks at a fleet motor fuel-dispensing facility as of right (currently allowed by special approval).
    - Eliminate Stage II vapor-recovery system requirements, consistent with NYS Department of Environmental Conservation regulations.
    - Require motor fuel dispensing facilities to notify Fire Department of decommissioning of vapor system piping.

FC 2307 (Design and Installation Requirements for Biodiesel Motor Fuel)

- Allow installation of biodiesel motor fuel tanks as of right, up to maximum 20% biodiesel content limit (B-20) (currently allowed by variance).
- Require FDNY approval of any blend exceeding 20%.

FC 2311.8 (Repair garages for vehicles fueled by lighter-than-air motor fuels)

- Adopt gas detection requirements for repair garages handling any hydrogen or other lighter-than-air-fueled vehicles.
- Other construction requirements for such facilities to be incorporated into Construction Codes.
- Adopt NFPA 2 as a Referenced Standard for all hydrogen-fuel systems.
- Require supervision by Certificate of Fitness holder in repair garages for vehicles fueled by hydrogen and other lighter-than-air motor fuels.

Chapter 24 (Flammable Finishes)

FC 2404.3.3 (Fire protection)

- Clarify that paint spray booths or rooms may be protected by a sprinkler system or a non-sprinkler fire extinguishing system.

Chapter 27 (Semiconductor Fabrication Facilities)

FC 2703.16 (Sub-atmospheric pressure gas systems)

- Adopt NFPA 318 as Referenced Standard for sub-atmospheric pressure gas systems (SAGS).

Chapter 28 (Lumber Yards and Wood Waste Materials)

FC 2803.2 (Dust control)

- Reference FC Chapter 22 explosion protection and combustible dust mitigation measures for indoor installations that generate combustible dust.

2803.5 (Control of ignition sources)

- Clarify and revise requirements for control of ignition sources, consistent with the International Fire Code.

Chapter 32 (High-Piled Combustible Storage)

FC 3208 (Rack Storage)

- Adopt Factory Mutual (FM) 4996 as Referenced Standard for combustible plastic pallets, to regulate them in a manner similar to wood pallets.
- Require installation of approved devices to protect flue spaces in high-piled combustible storage installations, when the Fire Department determines such spaces are not being properly maintained.

Chapter 33 (Fire Safety During Construction, Alteration and Demolition)

FC 3306 (Flammable Gases and Oxygen)

- Adopt NFPA 56 as Referenced Standard to regulate maintenance of flammable gas piping systems.
- Prohibit use of flammable gas for cleaning and purging of piping open to the atmosphere, to prevent explosions.

Chapter 35 (Welding and Other Hot Work)

FC 3503.4.1 (Torch operations)

- Require that any torch operation using a flammable gas, with or without oxygen and any torch operation for torch-applied roofing systems, generally be personally conducted by a Certificate of Fitness holder.

FC 3510 (Hot Work on Flammable and Combustible Liquid Storage Tanks)

- Regulate hot tapping, which involves performing hot work repairs on storage tanks that contain or contained flammable or combustible liquids, including requiring Fire Department approval.

Chapter 40 (Distilleries)

- Adopt new Fire Code chapter to regulate distilleries, any building or occupancy used for manufacturing of distilled spirits, to address fire safety and explosion hazards. Distilleries manufacture, store, handle, use and serve distilled spirits, a flammable liquid, and generate flammable vapors in the process, unlike breweries and wineries, which produce noncombustible or combustible liquids that are not flammable and do not generate flammable vapors.
- Define and regulate distillery operations, including restricting distilleries to appropriate types of occupancies that are designed with fire-rated separations between production,

storage and serving areas; sprinkler systems; electrical systems designed for use in the hazardous environment of the production area; continuous or exhaust ventilation systems; and fire alarm and gas detection systems. (Modified standards to be applied to existing distilleries through modification (variance) process.)

- Separate, less stringent regulations for other alcohol production (production of non-flammable alcohol products generated in distilleries that are precursors to distilled spirits).
- Require a Certificate of Approval (equipment approval) for the still, the device using in the distilling process that heats the flammable alcohol.
- Require a permit to establish and operate distilleries.
- Require supervision of distilleries by a Certificate of Fitness holder.
- Authorize by special Fire Department approval industry design and installation standards in lieu of FC608 requirements for distilleries with widely-separated operations that mitigate the hazards associated with the distilling process.
- Authorize by special Fire Department approval alternative design, installation, operation and maintenance standards, including distilled spirits industry design standards, in lieu of FC608 design and installation requirements for distilleries, where the applicant demonstrates that the design of the still, alcohol storage and handling equipment, grain handling equipment and/or other equipment mitigate the hazards associated with distillery operations.
- Authorize by Fire Department rule and/or individual modification alternative design and installation requirements for distilleries existing prior to the effective date of the 2022 Fire Code.

Chapter 50 (Hazardous Materials – General Provisions)

- Revise maximum allowable quantity (MAQ) tables for hazardous materials to include combustible dust.
- Incorporate organizational changes to hazardous materials tables and footnotes to conform to International Fire Code.
- Require oxygen sensor in laboratory units when the quantity of cryogenic inert gases or refrigerated carbon dioxide stored, handled or used exceeds 60 gallons.

Chapter 51 (Aerosols)

FC 5101.6 (Aerosol container size limitations)

- Clarify and revise requirements for aerosol products in plastic containers.

Chapter 53 (Compressed Gases)

FC 5306 (Medical Gas Storage)

- Adopt NFPA 99 as a Referenced Standard for hyperbaric facilities and require such facilities to be inspected, tested and maintained in accordance with that standard.
- Prohibit electronic devices inside hyperbaric facilities.
- Clarify signage requirement for medical gas storage.

FC 5307 (Carbon Dioxide Beverage Dispensing Systems)

- Incorporate design, installation, operation and maintenance requirements for beverage dispensing systems using carbon dioxide, include soft drink dispensers (from existing Fire Department rule 3 RCNY 3004-01).
- Require local-annunciating carbon dioxide detection and alarm systems, except in:
    - Aboveground storage room/area provided with continuous ventilation system.
    - Storage room/area equipped with a gas detection system in accordance with FC Chapter 9.

Chapter 56 (Explosives, Fireworks and Special Effects)

FC 5601 (General)

- Prohibit storage, handling, use and sale of binary explosives (two-component products that can be combined).
- Revise terminology for blasting, fireworks, special effects company certificates and certificates of fitness:
    - Blasting contractor
    - Blaster
    - Blasting personnel
    - Blast monitoring specialist
    - Fireworks contractor
    - Fireworks display personnel
    - Pyrotechnic special effects contractor (currently, pyrotechnic special effects supplier)
    - Pyrotechnic operator
    - Pyrotechnic special effects personnel
    - Non-pyrotechnic special effects personnel
- Revise provisions relating to transportation of explosives to job sites to reflect change in industry practices.
- Clarify requirement for Fire Department escort for transportation of explosives and fireworks by referencing restrictions on transportation on bridges and tunnels.

FC 5606.8 (Powder-actuated tool loads at construction sites)

- Move from Fire Code Chapter 33 requirements for storage and use of powder-actuated tool loads at construction sites.

FC 5607 (Blasting Operations)

- Reorganize/clarify the blasting application/approval process:
    - Pre-blasting survey
    - Blasting plan
    - Monitoring plan
    - Site survey meeting
    - Notice of blasting application
    - Multi-party coordination meeting
    - Final review and approval of permit applications
    - Notice of commencement of blasting operations
    - Permit issuance

- Clarify/revise blast vibration monitoring standards/requirements:
    - Blast monitoring plan approval
    - Require Certificate of Fitness for blast vibration monitoring specialists
    - Regulate blast monitoring equipment (in accordance with industry standards)
    - Adopt chart clarifying vibration limits and adopting new limit for modern-construction buildings based on study of blast vibrations in New York City environment
    - Clarify pre-blast and post-blast survey requirements
    - Authority to order discontinuance of blasting operations if the blast exceeds limits
    - Notification to department of blasting results
- Revise/clarify special effects terminology to conform to industry practices and current Certificate of Fitness
- Regulate special effects that do not involve use of explosive or hazardous materials but present safety concerns, including lasers, chemical fogs and simulated pyrotechnic special effects involving the use of sparking devices).
- Clarify the requirements for placing fire alarm systems out of service during special effects. Require that when special effects are regularly conducted at a premises, the fire alarm system must be designed to accommodate such special effects by minimizing the area affected when the fire alarm system is placed out of service.

Chapter 57 (Flammable and Combustible Liquids)

FC 5704.2.1 (Change of tank contents)

- Require prior Fire Department notification and approval when a fuel storage tank approved for one type of hazardous materials is to be used for a different hazardous material, to ensure that the tank is designed for the material and is adequate protected.

FC 5704.2.7.3.2 (Vent-line flame arresters and venting devices)

- Clarify that flame arresters are required for all storage tanks containing Class IB and IC flammable liquids, except when the installation would damage the tank.
- Eliminate the flame arrester requirement for protected aboveground storage tanks storing certain flammable liquids, consistent with the International Fire Code and NFPA 30.

FC 5705.5 (Alcohol-based hand rubs (ABHR) classified as Class I or Class II liquids)

- Reorganize and revise the regulation of ABHRs to allow and address the widespread use of ABHRs during the Coronavirus pandemic, consistent with current Fire Department guidance.
- Distinguish between consumer-product ABHRs (sealed dispensers/refills up to 68 ounces) from bulk packaging ABHRS (dispensers/containers that require manual pouring and handling).
- Clarify/revise ABHR permit requirements by requiring a permit for more than 275 gallons of consumer-product ABHR, consistent with existing Certificate of Fitness requirements.
- Treat ABHR in bulk packaging like other flammable liquids, requiring a permit for more than 5 gallons and a Certificate of Fitness for handling.
- Exclude ABHR in dispensers in use from the maximum allowable quantity (MAQ), consistent with the International Fire Code.
- Revise/reorganize FC5705.5, to distinguish between wall dispensers and other types of ABHR dispensers; allow use of other types of dispensers, including touch-free dispensers

with certain design features; and accommodate use of ABHR in occupancies other than health care facilities.

FC 5707 (Fleet Fueling Operations)

- Allow fleet fueling (mobile fueling of fleet vehicles with diesel motor fuel at site-specific, off-street locations) as an as of right operation (currently allowed by variance), subject to location, permit, supervision and operational requirements. Eliminate current plan review requirement.

Chapter 58 (Flammable Gases)

FC 5808 (Hydrogen Fuel Gas Rooms)

- Regulate hydrogen fuel gas rooms, power-generating facilities in which fuel cells or other devices produce hydrogen gas from natural gas or water and burn it to generate energy for power.
- Definitions of gaseous hydrogen and hydrogen fuel gas rooms added to FC Chapter 2.
- Adopt NFPA 2 as the Referenced Standard applicable to hydrogen fuel gas rooms.
- Limit indoor hydrogen generation to immediate consumption; prohibit hydrogen generation for storage.
- Hydrogen gas rooms to be constructed in accordance with the Building Code.
- Require fire protection measures for hydrogen fuel gas rooms, including flammable gas detection system, explosion control and emergency power.

Chapter 61 (Liquefied Petroleum Gases)

FC 6109.15 (LPG container storage for sale)

- Clarify and revise requirements for outdoor storage of propane and other liquefied petroleum gases (LPG) at retail stores:
    - Limit aggregate quantity to 400 pounds.
    - Limit individual container size to 20 pounds.
    - Require propane cylinders be handled by a Certificate of Fitness holder or stored in an automated container exchange system.
- Allow automated container exchange systems for outdoor storage and sale of LPG containers:
    - Operation (sale) during regular business hours.
    - Operation limited to one LPG container per transaction.
    - Must be in view from store (or closed circuit television monitor) to prevent tampering.
    - Must be provided with manual override and other safety features.
    - Must be under general supervision of a Certificate of Fitness holder.
    - Require regular inspection by store personnel.

Chapter 80 (Referenced Standards)

- Update list of Referenced Standards to incorporate new standards referenced in the Fire Code chapters and to update the editions of existing Referenced Standards, consistent with the International Fire Code.
- New Referenced Standards:
    - ASHRAE 15 (Safety Standard for Refrigeration Systems)

- California Technical Bulletin 116 (Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Upholstered Furniture)
- California Technical Bulletin 117 (Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture)
- 49 CFR Parts 100-180 (Hazardous Materials Regulations)
- 49 CFR Parts 190-199 (Pipeline Safety)
- 49 CFR Parts 350-399 (Federal Motor Carrier Safety Regulations)
- ANSI/FM 4996 (Approval Standard for Classification of Pallets and Other Material Handling Products as Equivalent to Wood Pallets)
- IIAR 2, 6, 7, 8 and 9 (ammonia refrigerating systems safety standards)
- IKECA C10 (Standard for Cleaning of Commercial Kitchen Exhaust Systems)
- NFPA 2 (Hydrogen Technologies Code)
- NFPA 15 (Standard for Water Spray Fixed Systems for Fire Protection)
- NFPA 56 (Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems)
- NFPA 68 (Standard on Explosion Protection By Deflagration Venting)
- NFPA 76 (Standard for the Fire Protection of Telecommunications Facilities)
- NFPA 88A (Standard for Parking Structures)
- NFPA 96 (Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations)
- NFPA 140 (Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations)
- NFPA 307 (Standard for the Construction and Fire Protection of Marine Terminals, Piers, and Wharves)
- NFPA 318 (Standard for the Protection of Semiconductor Fabrication Facilities)
- NFPA 326 (Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning or Repair)
- NFPA 385 (Standard for Tank Vehicles for Flammable and Combustible Liquids)
- NFPA 400 (Hazardous Materials Code)
- NFPA 652 (Standard on the Fundamentals of Combustible Dust)
- NFPA 664 (Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities)
- NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems)
- UL 80 (Standard for Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids)
- UL 142 (Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids)
- UL 268 (Standard for Smoke Detectors for Fire Alarm Systems)
- UL 330A (Outline of Investigation for Extinguishing System Units for Residential Range Top Cooking Surfaces)
- UL 499 (Standard for Electric Heating Appliances)
- UL 864 (Standard for Control Units and Accessories for Fire Alarm Systems)
- UL 1564 (Standard for Safety Industrial Battery Chargers)
- UL 1741 (Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources)
- UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications)
- UL 2017 (Standard for General-Purpose Signaling Devices and Systems)
- UL 2075 (Standard for Gas and Vapor Detectors and Sensors)

- UL 2200 (Standard for Stationary Engine Generator Assemblies)
- UL 2272 (Standard for Electrical Systems for Personal E-Mobility Devices)
- UL 2360 (Standard for Test Methods for Determining the combustibility characteristics of Plastics Used in Semi-Conductor Tool Construction)
- UL 2849 (Standard for Electrical Systems for eBikes)
- UL 9540 (Standard for Energy Storage Systems and Equipment)
- UL 9540A (Standard for Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems, 4th edition, November 2019)