

**Scope:** The International Fire Code (IFC) establishes comprehensive regulations to safeguard life and property from fire and explosion hazards. For municipalities, the IFC provides a uniform framework for fire prevention, emergency preparedness, and fire protection system requirements that apply to both new and existing buildings. By adopting the IFC, a city promotes consistent enforcement of fire safety measures, ensures compatibility with national standards, and supports coordination among building officials, fire departments, and design professionals.

**Significant Changes** (including changes made in the 2021 version and the 2024 version, noted in parentheses on which year the change took effect):

*The intent of the content below is not intended to capture each change to the text of the code for all items related to restructuring or moving content, updates to definitions/clarifications, or minor provisions with insignificant impact. More context can be provided upon request for any of the changes that have occurred in each of the code editions.*

## Chapter 1 Scope and Administration

- Expanded duties for the fire code official (2024).

## Chapter 2 Definitions

- Many updated terms are included to capture modern construction and uses (2021 & 2024).

## Chapter 3 General Requirements

- Added requirements for Additive Manufacturing (3D Printing) (2021).
- Added requirements for exterior artificial vegetation (2021).
- Requirements pertaining to the storage of lithium-ion and lithium metal batteries are added to address the significant fire hazard that occurs during thermal runaway (2024).
- Requirements are added to regulate the use and recharging of lithium-ion or lithium metal battery powered micromobility devices (such as bikes or scooters) (2024).

## Chapter 4 Emergency Planning and Preparedness

- A fire safety and evacuation plan must be maintained for most areas using lithium-ion or lithium metal batteries (2024).

## Chapter 5 Fire Service Features

- A fire command center is required in large buildings classified as Group F-1 and S-1 occupancies (2021).
- New outlined requirements for emergency responder communications enhancement systems (2021 & 2024).

## Chapter 6 Building Services and Systems

- Provisions are added to ensure the clothes dryer lint trap and exhaust duct are cleaned and maintained properly (2021).

## Chapter 7 Fire and Smoke Protection Features

[No significant changes]

## Chapter 8 Interior Finish, Decorative Materials and Furnishings

[No significant changes]

## Chapter 9 Fire Protection and Life Safety Systems

- Special provisions added for the manufacture and storage of distilled spirits (2021).
- Open parking garages are required to be equipped with an automatic sprinkler system when the fire area exceeds 48,000 square feet (2021).

- Mechanical-access enclosed parking garages are defined and now require an automatic sprinkler system, and example would be the Carvana towers (2021).
- Allowable use cases for NFPA 13R systems (residential sprinklers) is slightly reduced (2021).
- A manual fire alarm system is required in self-storage facilities which are three stories or more and have interior corridors (2021).
- Various minor updates to fire alarm system requirements for occupant notification and monitoring (2021).
- A sprinkler system is now required for facilities where lithium-ion batteries or lithium metal batteries are developed, tested, manufactured and stored, and also where vehicles powered by lithium-ion or lithium metal batteries are repaired (2024).
- Updated fire alarm thresholds for outdoor sports viewing (and similar) areas (2024).
- A fire alarm and detection system is now required for facilities where lithium-ion batteries or lithium metal batteries are developed, tested, manufactured and stored, and also where vehicles powered by lithium-ion or lithium metal batteries are repaired (2024).
- Smoke alarms must now be listed for resistance to common nuisance sources from cooking appliances (2024).
- Signs for fire department connections must indicate the type of system served and any specific pressure requirements (2024).
- Carbon monoxide (CO) detection is required in all occupancies containing a carbon monoxide source. Detection and notification can be addressed in several ways, and a definition is added to clarify where CO detection is required (2024).
- A mass notification risk analysis is required for Group E occupancies with an occupant load of 500 or more (2024).

## Chapter 10 Means of Egress

- Various minor updates to requirements for doors, hardware, locks, and similar (2021 & 2024).]
- Low-level exit signs are not required in a Group R-1 occupancy equipped with an automatic sprinkler system (2024).

## Chapter 11 Construction Requirements for Existing Buildings

- Unsprinklered high-rise buildings must either install an automatic sprinkler system or meet specific egress and fire alarm criteria (2024).
- Existing buildings with a carbon monoxide source are required to retroactively install carbon monoxide detection (2024).
- Analysis is needed for existing energy storage systems (battery backups) to verify it would comply if constructed under new code requirements (2024).

## Chapter 12 Energy Systems

- Portable generators are now regulated and safety issues are addressed.
- Regulation added for apartment type residential buildings for use of battery storage systems when integrated with their electrical service as a backup (2024).

## Chapters 13–19 Reserved

## Chapter 20 Aviation Facilities

[No significant changes]

## Chapter 21 Dry Cleaning

[No significant changes]

## Chapter 22 Combustible Dust-Producing Operations

[No significant changes]

## Chapter 23 Motor Fuel-Dispensing Facilities and Repair Garages

- Added requirements for alternative fuel power vehicles to ensure safe operations (2021).

## Chapter 24 Flammable Finishes

- Added requirements for spray booths (2021).

## Chapter 25 Fruit and Crop Ripening

[No significant changes]

## Chapter 26 Fumigation and Insecticidal Fogging

[No significant changes]

## Chapter 27 Semiconductor Fabrication Facilities

[No significant changes]

## Chapter 28 Lumber Yards and Agro-Industrial, Solid Biomass and Woodworking Facilities

[No significant changes]

## Chapter 29 Manufacture of Organic Coatings

[No significant changes]

## Chapter 30 Industrial Ovens

[No significant changes]

## Chapter 31 Tents, Temporary Special Event Structures and Other Membrane Structure

- Inflatable amusement devices are added to the code and have requirements for combustibility and operation (2024).

## Chapter 32 High-Piled Combustible Storage

- High-piled storage of lithium-ion batteries is considered a high-hazard commodity (2021).

## Chapter 33 Fire Safety During Construction and Demolition

- Various updates to fire safety inspection requirements during construction (2021).
- In Type I and II buildings, barriers installed to separate construction areas from the remainder of a building must be noncombustible, flame retardant or have a limited heat release rate (2021).
- Updates to fire water requirements for buildings under construction (2021).

## Chapter 34 Tire Rebuilding and Tire Storage

## Chapter 35 Welding and Other Hot Work

## Chapter 36 Marinas

## Chapter 37 Combustible Fibers

## Chapter 38 Higher Education Laboratories

## Chapter 39 Processing and Extraction Facilities

- New, long overdue, standards are added for extraction equipment relating to plant oil extraction and similar (2021).

## Chapter 40 Storage of Distilled Spirits and Wines

- New chapter established to better regulate the manufacturing and storage of distilled spirits (2021 & 2024).

## Chapter 41 Temporary Heating and Cooking Operation

- A new chapter is provided to address temporary heating and cooking operations and correlate the requirements from various locations in the code (2024).

## Chapters 42-49 Reserved

## Chapter 50 Hazardous Materials—General Provisions

## Chapter 51 Aerosols

[No significant changes]

## Chapter 52 Reserved

## Chapter 53 Compressed Gases

[No significant changes]

## Chapter 54 Corrosive Materials

[No significant changes]

## Chapter 55 Cryogenic Fluids

[No significant changes]

## Chapter 56 Explosives and Fireworks

- Requirements for ammunition reloading in commercial operations are added to the code (2021).

## Chapter 57 Flammable and Combustible Liquids

- Floor supported devices for alcohol-based hand rub dispensers are now allowed, and the supply of dispenser refill containers is not included in the maximum allowable quantity (2024).

## Chapter 58 Flammable Gases and Flammable Cryogenic Fluids

- Regulations for on-demand mobile fueling of hydrogen vehicles are added to the code (2024).

## Chapter 59 Flammable Solids

[No significant changes]

## Chapter 60 Highly Toxic and Toxic Materials

[No significant changes]

## Chapter 61 Liquefied Petroleum Gases

[No significant changes]

## Chapter 62 Organic Peroxides

[No significant changes]

## Chapter 63 Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids

[No significant changes]

## Chapter 64 Pyrophoric Materials

[No significant changes]

## Chapter 65 Pyroxylin (Cellulose Nitrate) Plastics

[No significant changes]

## Chapter 66 Unstable (Reactive) Materials

[No significant changes]

## Chapter 67 Water-Reactive Solids and Liquids

[No significant changes]

## Chapters 68-79 Reserved

## Chapter 80 Referenced Standards

- Nearly all referenced standards have had an updated edition since 2018.