

Significant Changes to International Fire Code 2021

508.1, 508.1.1, 508.1.3, 508.1.7 (New)

Fire Command Center

CHANGE SUMMARY: A fire command center is required in large buildings classified as Group F-1 and S-1 occupancies.

510.4.1, 510.4.1.1, 202

Emergency Responder Communication Coverage - Signals

CHANGE SUMMARY: The testing criteria for in-building 2-way emergency responder coverage systems is enhanced by requiring 99 percent coverage in critical areas and by adding a second test criteria for inbound signals.

903.2.4.2 (New), 903.2.9.3 (New)

Distilled Spirits

CHANGE SUMMARY: Fire areas containing Group F-1 occupancies used for the manufacturing of distilled spirits or Group S-1 occupancies used for the storage of distilled spirits or wine are required to be equipped with an automatic sprinkler system.

903.2.4, 903.2.4.3 (New), 903.2.7, 903.2.7.2 (New), 903.2.9, 903.2.9.4 (New)

Upholstered Furniture and Mattresses

CHANGE SUMMARY: Requirements for the installation of an automatic sprinkler system in facilities manufacturing, storing or selling upholstered furniture and mattresses have been revised.

903.2.10, 903.2.11.3

Group S-2 Parking Garages

CHANGE SUMMARY: Open parking garages are required to be equipped with an automatic sprinkler system when the fire area exceeds 48,000 square feet.

903.2.10.2, IBC 202

Mechanical-Access Parking Garages

CHANGE SIGNIFICANCE: The construction components of newer vehicles along with the new fuel sources being used create a substantial fire problem. An automatic sprinkler system is required to be installed in these facilities.

In addition to the fire sprinkler requirement, Section 406.6 has been added to the IBC requiring mechanical-access enclosed parking garages to provide the following:

- Separation from other occupancies by 2-hour fire barriers or horizontal assemblies.
- Fire department access doors at the ground level as required for high-piled combustible storage.
- Mechanical smoke removal system.
- Manual emergency shutdown switch for use by emergency personnel.
- Fire control equipment room with exterior access housing the fire alarm control unit, mechanical ventilation controls and emergency shut down switch.

905.3.1

Standpipes in Parking Garages

CHANGE SUMMARY: When a standpipe is required in a parking garage, whether open or enclosed, the standpipe will be a Class I standpipe without the requirement for spacing hose connections as required for Class II standpipes.

907.2.10 (New)

Manual Fire Alarm in Public-Storage and Self-Storage Facilities

CHANGE SUMMARY: A manual fire alarm system is required in self-storage facilities which are three stories or more and have interior corridors.

907.4, 907.5, 907.5.1 (New), 907.5.2.1.3 (New), 907.5.2.1.3.1 (New), 907.5.2.1.3.2 (New) **Low-frequency Alarms in Sleeping Rooms**

CHANGE SUMMARY: Audible fire alarm notification with a 520 Hz low frequency signal is designed to enhance the waking effectiveness of high-risk segments of the population and is required in Group R-1 and R-2 occupancies when a fire alarm system is required.

907.6.6.1, 907.6.6.2 (New)

Fire Alarm System Monitoring

CHANGE SUMMARY: Fire alarm monitoring must be in accordance with NFPA 72 and must go through a human interface prior to alarms being transmitted to the emergency dispatch center.

913.2.2

Protection of Circuits for Electric Fire Pumps

CHANGE SUMMARY: Conductors powering a fire pump can be covered with a minimum of 2 inches of concrete to provide the required fire-resistance-rated protection.

914.7, 914.7.1, 914.7.2, 202

Puzzle Rooms

CHANGE SUMMARY: Specific provisions are added to the code to address puzzle rooms.

1006.3, 1006.3.1, 1006.3.2, 1017.3.2.3

Exit Access Stairways in Atriums

CHANGE SUMMARY: Clarifies that egress requirements are determined for each story or occupied roof level, and allows the path egress to traverse more than one story within an atrium.

1006.3.2, Exception 7; 1006.3, 1006.3.1

Egress from Occupied Roofs

CHANGE SUMMARY: Egress travel on exit access stairways and ramps that are exterior to the building and connecting occupied roofs are allowed to traverse more than one story.

1006.3.4, Table 1006.3.4(1), Table 1006.3.4(2)

Single Exit - Exit Access vs. Common Path

CHANGE SUMMARY: When dealing with buildings or stories provided with only one exit or access to one exit, the travel distance requirement has been revised to now measure the exit access travel distance as opposed to the common path of egress travel.

1010.1.1

Size of Doors

CHANGE SUMMARY: The width for a swinging door is no longer limited to 48 inches and a consolidated exception allows for reduced size doors for single user showers, saunas, toilet compartments, dressing, fitting or changing rooms.

1010.2.4

Locks and Latches

CHANGE SUMMARY: Two additional exceptions have been added into the general locking section to allow locked doors in the egress system when needed for either the clinical needs of care recipients or where exterior areas egress back into the building.

1010.2.8, 1010.2.8.1, 1031.2.2

Locking Arrangements in Educational Occupancies

CHANGE SUMMARY: Exit door locks for protection from intruders are allowed in Group E occupancies, Group B educational occupancies and Group I-4 occupancies. When remote operation is provided, the door must still be unlockable from outside the room.

1010.2.9, 1010.2.9.1, 1010.2.9.2

Panic Hardware and Fire Exit Hardware

CHANGE SUMMARY: Panic or fire exit hardware is now required in electrical rooms with equipment greater than 800 amperes rather than 1,200 amperes, and in refrigeration machinery rooms exceeding than 1,000 square feet.

1203.1.2

Fuel Line Piping Protection

CHANGE SUMMARY: Several options are provided for protecting the fuel line supplying emergency and standby generators.

1204

Portable Generators

CHANGE SUMMARY: Portable generators are now regulated and safety issues are addressed.

1205.3.3

Smoke Ventilation with Solar PV

CHANGE SUMMARY: The requirement for access pathways to smoke and heat vents is clarified.

1207

Electrical Energy Storage Systems

CHANGE SUMMARY: The requirements for energy storage systems have been reformatted and revised to better address this growing and changing technology.

2308.1, 2308.2, 2308.2.3, 2308.2.4

CNG Vehicle Fueling

CHANGE SUMMARY: Vehicle fueling with compressed natural gas (CNG), previously allowed at only residential occupancies, is now allowed at other occupancies.

2311.8

Repair of Lighter-than-Air Fueled Vehicles

CHANGE SUMMARY: The requirements for repair of lighter-than-air fueled vehicles are clarified and expanded to ensure safe operations in repair garages.

2404.3.3.6

Size of Spray Booths

CHANGE SUMMARY: Spray booths are no longer restricted to a maximum size of 1,500 square feet.

Table 3203.8

High-Piled Storage of Lithium-Ion Batteries

CHANGE SUMMARY: High-piled storage of lithium-ion batteries is considered a high-hazard commodity.

Chapter 40 (New), 903.2.4.2 (New), 903.2.9.3 (New), IBC 307.1.1

Storage of Distilled Spirits and Wines

CHANGE SUMMARY: Provisions have been added to the code to address storage of distilled spirits and wines in barrels and casks.

5601.1.3

Retail of Consumer Use Fireworks

CHANGE SUMMARY: The referenced NFPA standard for fireworks sale and storage is specified as the 2006 edition of NFPA 1124.

5606.1, 5606.6

Ammunition Reloading in Commercial Operations

CHANGE SUMMARY: Requirements for ammunition reloading in commercial operations are added to the code.

5707.1, 5707.2, 5707.2.1, 5707.2.2

On-Demand Mobile Fueling

CHANGE SUMMARY: On-demand mobile fueling operations are enhanced and fueling vehicles are now identified as one of three classifications based on the quantity of fuel carried.

Appendix H, Section H104 (New), H104.1 (New), H104.2 (New)

Chemical Facility Anti-Terrorism Standards

CHANGE SUMMARY: Security requirements are added to Appendix H along with a reference to evaluation of security by Department of Homeland Security in accordance with the Chemical Facility Anti-Terrorism Standards.