

2021 International Fire Code

Proposed Changes
City Council
1/24/2023





Cooperating Agencies

- Fire Board of Appeals (FBA)
- American Institute of Architects (AIA)
- Housing and Building Association of Colorado Springs (HBA)
- Colorado Springs Downtown Development Authority
- Fire Sprinkler Committee
- Fire Alarm Committee
- City Planning and Community Development
- Apartment Association of Southern Colorado (AASC)

Quick overview

- Wildland Urban Interface (WUI)
 - Siding and decks
- Firefighter Air Replenishment System (FARS)
 - Clarity on where required
- Electric vehicles (EV)
 - New requirements
- Energy storage systems (ESS)
 - New requirements

Wildland Urban Interface

- Appendix K – Fuels Management
 - Updated and new definitions
 - Provided clarifications
 - Added sections referencing decks and exterior elements
- K101.1.1 and K101.1.2
 - Changes to deck requirements
 - As of June 30th, 2023: new, modified, altered, or reconstructed decks must comply.
 - Siding changes
 - As of June 30th, 2023: buildings completely rebuilt, or 50% net replacement of siding shall comply.

Firefighter Air Replenishment System (FARS)

- Appendix L – FARS
 - Provides new clarity, and locations of where system is required
 - Required in:
 - High-rise buildings
 - Transport tunnels that exceed 700 ft in length
 - Any new buildings 500,000 sq. ft. or more
 - Underground parking 3 stories or more below grade

Video of Electric Bus Fire



Amendments regarding Lithium-Ion

- Amendments to Chapter 3
- Amendments to Chapter 9
- New Section 322 – Storage of Lithium-Ion and Lithium Metal Batteries
- New Section 323 – Powered Micromobility Devices
- New Section 324 – Electric Vehicle (EV) Charging Stations



IBC Chapter 3 – Occupancy Classification and Use

304.1 Business Group B.

- Laboratories: testing and research
- Lithium-ion or lithium metal battery testing, research and development

306.2 Moderate-hazard factory industrial, Group F-1.

- Energy storage systems (ESS) in dedicated use buildings
- Energy storage systems (ESS) and equipment containing lithium-ion or lithium metal batteries
- Lithium-ion batteries
- Vehicles powered by lithium-ion or lithium metal batteries

311.2 Moderate-hazard storage, Group S-1.

- Lithium-ion or lithium Metal batteries
- Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials specified in Table 307.1(1) (see Section 406.8)
- Vehicle repair garages for vehicles powered by lithium-ion or lithium metal batteries

Section 322 – Storage of Lithium-Ion and Lithium Metal Batteries

General overview

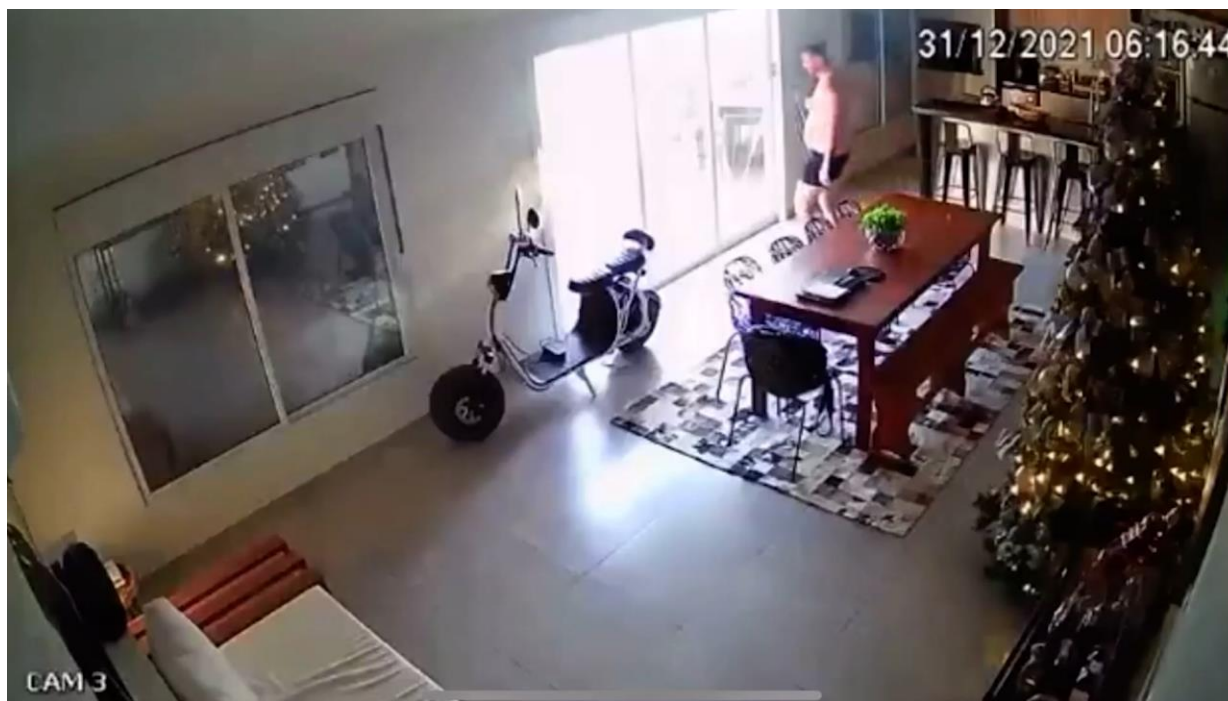
- Section 105.5.53 Permit required - 5 cu. ft. accumulation
- Section 403.10.6 Fire safety planning required
- Section 322.4.1 Limited Indoor storage
- Section 322.4.2 Indoor storage
- Section 322.4.2.6 - Reduced requirements



For Indoor storage

- 2-hour rated fire barrier
- Sprinkler System
- Air-aspirating or radiant energy-sensing detectors

Video of Electric Scooter Fire



Section 323 – Powered Micromobility Devices

Powered Micromobility Devices - Motorized bicycles, motorized scooters and other personal mobility devices powered by a lithium-ion or lithium metal battery. The term does not include motor vehicles that are required to be registered with the Department of Motor Vehicles for the state or jurisdiction

- No Permit Required
- Section 323.1 (2) - Exception for single device by its owner
- Section 323.1.1 - Use of a residential occupancy as business is prohibited
- Equipment to be listed per UL 2272 or UL 2649
- Fire Safety Plan



Video of Electric Car Fire



Section 324 – Electric Vehicle (EV) Charging Stations

Direct Current Fast Charging (DCFC) station - An electric vehicle charging station that has maximum Direct Current (DC) output greater than 20 kW.

- Section 324.6 - Direct Current Fast Charging stations not permitted above or below grade.
- Section 324.8 - Emergency Disconnect
- Section 324.9 - Labeling and signage of disconnects
- Section 324.10 – 8 Vehicles per cluster then separate



Even the FD is susceptible



Chapter 33 – Fire Safety During Construction and Demolition

- IFC did a large overhaul
- Several CSFD changes in line with recent admin ruling – reference stairs and standpipes
 - Changed 40 ft. requirement for temporary stairs and standpipes to 30 ft.
 - Second remote standpipe for 5B construction where 3 stairs are required



Chapter 33 – Fire Safety During Construction and Demolition (cont.)

- Site safety plan
 - 13 items to be included such as:
 - Site safety director contact info
 - Fire Department access plan
 - Fire protection equipment location
 - Hot work permit plan
 - Site safety director
 - Required to ensure compliance with site safety plan
 - Daily fire safety inspections
 - Results are documented and on site until a C of O is obtained
 - Documentation shall be readily available
 - 3 violations can result in stop work order

Chapter 39 – Processing and Extraction Facilities

- ICC caught up to us and we are in unison

Chapter 40 – Storage of Distilled Spirits and Wines

- Replaces previous CSFD ch. 38
- Storage of beverages
- Fire sprinklers regardless of size



Questions?

