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2021



Calhan Fire Department Fire Code Amendments

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Part I – Administrative

CHAPTER 1 SCOPE AND ADMINISTRATION

PART 1 – GENERAL PROVISIONS

SECTION 101 SCOPE AND GENERAL REQUIREMENTS

Section 101.1 Title. Amend Section 101.1 to read as follows:

[A] 101.1 Title. These regulations shall be known as the *Fire Code* of ~~[NAME OF JURISDICTION]~~ Calhan Fire Protection District, hereinafter referred to as “this code.”

PART 2 – ADMINISTRATION AND ENFORCEMENT

SECTION 103 CODE COMPLIANCE AGENCY

Section 103.1 Creation of agency. Amend Section 103.1 to read as follows:

[A] 103.1 Creation of agency. The ~~[INSERT NAME OF DEPARTMENT]~~ Calhan Fire Department is hereby created and the official in charge thereof shall be known as the fire code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

SECTION 104 DUTIES AND POWERS OF THE FIRE CODE OFFICIAL

Section 104.1 General. Amend Section 103.1 to read as follows:

[A] 104.1 General. The fire code official is hereby authorized to enforce the provisions of this code. The fire code official shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules, and shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code. ~~The fire chief or designee has authority in determining the application of this code and resolving any conflicts that may arise from enforcement of this code.~~

Section 104.6 Official records. Amend Section 104.6 to read as follows:

[A] 104.6 Official records. The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be retained for not less than ~~5 years~~ seven (7) years or for as long as the structure or activity to which such records relate remains in existence, unless otherwise provided by other regulations.

Section 104.7.2 Actions. Add a new Section 104.7.2 to read as follows:

104.4.2 Actions, liability and legal defense. The Colorado Governmental Immunity Act, Article 10 of Title 24 Colorado Revised Statutes, shall apply to the actions, liability and legal defense of any Fire Code Official, officer or employee charged with the enforcement of this code.

SECTION 105 PERMITS

Section 105.1.2 Types of permits. Amend Section 105.1.2 to read as follows:

1. 105.1.2 Types of permits. There shall be ~~two~~ three types of permits as follows:

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2. Operational permit. An operational permit allows the applicant to conduct an operation or a business for which a permit is required by Section 105.5 for either:
 1. A prescribed period.
 2. Until renewed or revoked.
3. Construction permit. A construction permit allows the applicant to install or modify systems and equipment for which a permit is required by Section 105.6.
4. Administrative permits. An administrative permit allows the applicant to modify fire protection or life safety systems and equipment, having a limited scope of work, for which a construction permit would otherwise be issued. Administrative permits apply to the following:
 1. 20-Head letters.
 2. 5-device letters.
 3. Temporary removal of equipment during construction activities.
 4. Others as approved by the fire code official.

Section 105.2.2 Inspection authorized. Amend Section 105.2.2 to read as follows:

[A] 105.2.2 Inspection authorized. Before a new operational permit is approved, the fire code official is authorized to inspect the receptacles, vehicles, buildings, devices, premises, storage spaces, areas, activities, processes, procedures, and all other relevant items of fire and life safety to be used to determine compliance with this code or any operational constraints required.

Section 105.3.4.1 Work at risk. Add new Section 105.3.4.1 to read as follows:

105.3.4.1 Work at risk. Where a permit is required, and upon the request of a permit applicant, the fire code official may issue a work-at-risk permit to begin work prior to the issuance of a permit. The work at risk permit will allow the applicant to begin installation, modification, or commencement of a system, process, or activity for which the permit is required prior to approved plans or a construction permit. The holder of the work at risk permit shall be authorized to proceed at their own risk with the installation or modification of the system, or other work requiring a permit, but shall not entitle them to any required inspections of the system or work until construction documents or permit applications are approved and the required permits are posted on site. Any work performed on the system will be done at the risk of the installing contractor. Any required changes or modifications based upon approved plan review or inspection activities will be the responsibility of the contractor and shall be made prior to final approval of the system and Certificate of Occupancy. A work at risk permit fee shall be assessed as set forth by the adopted fee schedule.

Section 105.3.4.2 Temporary use permit. Add a new Section 105.3.4.2 to read as follows:

105.3.4.2 Temporary use permit. A temporary use permit may be issued upon request to allow an activity or temporary use to occur within a given occupancy where the occupancy classification may not meet the intended temporary use, or temporary activity when it is determined to create a considerable risk based upon the activity itself or environmental hazards. A request for temporary use must be submitted in writing to the fire code official and include a permit application, code study with details on the occupant loads, means of egress, fire protection systems, and specific hazards or activities present. Inspections shall be performed in accordance with Section 108 prior to the issuance of the temporary use permit. A temporary use permit may be issued for a maximum of 180 days and may only be extended upon approval by the fire code official. A temporary use permit fee shall be assessed as set forth by the adopted fee schedule.

Section 105.3.6 Compliance with code. Amend Section 105.3.6 to read as follows:

[A] 105.3.6 Compliance with code. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of this code or other

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ordinances of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the fire code official from requiring the correction of errors in the construction documents and other data. Any addition to or alteration of approved construction documents shall be approved ~~in advance~~ by the fire code official. ~~as evidenced by the issuance of a new or amended permit.~~

Section 105.3.6.1 Liability. Add a new Section 105.3.6.1 to read as follows:

105.3.6.1 Liability. The permittee shall indemnify the Fire Department, its officers, agents, and employees against any claim or liability arising from or based on the violation of this code or any other applicable law or regulation caused by any actions or omissions of the permittee arising out of the exercise of the activity authorized by the permit.

Section 105.5 Required operational permits. Amend Section 105.5 to read as follows:

105.5 Required operational permits. The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.5.1 through ~~105.5.52~~ 105.5.55

Table 105.5.9 Permit amounts for compressed gases. Amend Table 105.5.9 to read as follows:

TABLE 105.5.9 PERMIT AMOUNTS FOR COMPRESSED GASES

TYPE OF GAS	AMOUNT (cubic feet at NTP)
Carbon dioxide used in carbon dioxide enrichment systems	875 (100 lb)
Carbon Dioxide used in insulated liquid carbon dioxide beverage dispensing applications	875 (100 lb)
Corrosive	200
Flammable (except cryogenic fluids and liquified petroleum gases)	200
Highly toxic	Any Amount
Inert and simple asphyxiant	6,000
Inert and simple asphyxiant in beverage dispensing applications	875 (100 lb)
Oxidizing (including oxygen)	504
Pyrophoric	Any Amount
Toxic	Any Amount

Section 105.5.17 Fire hydrants and valves. Amend Section 105.6.17 to read as follows:

105.5.17 Fire hydrants and valves. ~~A An operational Water District~~ permit is required to use or operate fire hydrants or valves intended for fire suppression purposes that are installed on water systems and provided with ready access from a fire apparatus access road that is open to or generally used by the public.

Exception: A permit is not required for authorized employees of the water company that supplies the system or the fire department to use or operate fire hydrants or valves.

Section 105.5.18 Flammable and combustible liquids. Amend Section 105.5.18 to read as follows:

105.5.18 Flammable and combustible liquids. An operational permit is required:

1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the off-site transportation in pipelines regulated by the Department of Transportation (DOTn) nor does it apply to piping systems.

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2. To store, handle or use Class I liquids in excess of ~~5~~ 20 gallons in a building or in excess of ~~10~~ 50 gallons outside of a building, except that a permit is not required for the following:
 - 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant, or mobile heating plant, unless such storage, in the opinion of the fire code official, would cause an unsafe condition.
 - 2.2. The storage or use of paints, oils, varnishes, or similar flammable mixtures where such liquids are stored for maintenance, painting, or similar purposes for a period of not more than 30 days.
3. To store, handle or use Class II or Class IIIA liquids in excess of ~~25~~ 55 gallons in a building or in excess of ~~60-100~~ gallons outside a building, except for fuel oil used in connection with oil-burning equipment.
 - 3.1. To store, handle or use Class IIIB liquids of 120 gallons or more in a building or outside a building.
4. To store, handle or use Class IIIB liquids in tanks or portable tanks for fueling motor vehicles at motor fuel-dispensing facilities or where connected to fuel-burning equipment.

Exception: Fuel oil and used motor oil used for space heating or water heating.
5. To remove Class I or II liquids from an underground storage tank used for fueling motor vehicles by any means other than the approved, stationary on-site pumps normally used for dispensing purposes.
6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries, and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed, or used.
7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground, or above-ground flammable or combustible liquid tank.
8. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed.
9. To manufacture, process, blend or refine flammable or combustible liquids.
10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental, or manufacturing establishments in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.
11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft, and other special equipment at commercial, industrial, governmental, or manufacturing establishments in accordance with Section 5706.5.4 or, where required by the fire code official, to utilize a site for on-demand mobile fueling operations in accordance with Section 5707.
12. To manufacture, produce or store, alcoholic beverages, distilled spirits, or wines in excess of 16-percent alcohol content stored in containers/vessels greater than 1.3 gallons each.

Section 105.5.25 Hot work operations. Amend Section 105.5.25 to read as follows:

105.5.25 Hot work operations. An operational permit is required for hot work including, but not limited to:

1. Public exhibitions and demonstrations where hot work is conducted.
2. Use of portable hot work equipment inside an **occupied** structure.

Exception: Work that is conducted under a construction permit.
3. Fixed-site hot work equipment, such as welding booths.
4. Hot work conducted within a wildfire risk area **and/or during burn restrictions or during burn bans.**
5. Application of roof coverings with the use of an open-flame device.
6. Where approved, the fire code official shall issue a permit to carry out a hot work program. This program allows approved personnel to regulate their facility's hot work operations. The approved personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in Chapter 35. These permits shall be issued only to their employees or hot work operations under their supervision. **Organizations complying with sub-section 6 do not need an operational permit issued by the fire department.**

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Section 105.5.29 LP-gas. Amend Section 105.5.29 to read as follows:

105.5.29 LP-gas. An operational permit is required for:

1. Storage and use of LP-gas ~~where a single container, cylinder, or tank is more than 125 gallons water capacity; or the aggregate capacity of containers is more than 125 gallons water capacity.~~

Exception: A permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less or multiple container systems having an aggregate quantity not exceeding 500 gallons (1893 L) serving occupancies in Group R-3, ~~one- and two-family dwellings and townhomes.~~

2. Operation of cargo tankers that transport LP-gas.
3. ~~One or more LP-gas cabinets associated with a cylinder exchange program.~~

Section 105.5.34.1 Open burning and prescribed burns/fires. Amend Section 105.5.34 to read as follows:

105.5.34 Open burning and prescribed burns/fires. An operational permit is required for the kindling or maintaining of an open fire or a fire on any public street, alley, road, or other public or private ground. Instructions and stipulations of the permit shall be complied with.

Section 105.5.36 Open flames and candles. Amend Section 105.5.36 to read as follows:

105.5.36 Open flames and candles. An operational permit is required to use open flames or candles in connection with assembly areas, dining areas of restaurants, ~~and~~ drinking establishments ~~or to use open flame effects before an audience.~~

Section 105.5.42 Pyrotechnic special effects material. Amend Section 105.5.42 to read as follows:

105.5.42 Pyrotechnic special effects material and display fireworks. An operational permit is required for use and handling of pyrotechnic special effects material. ~~An operational permit is required for the storage, handling, use of explosive material used in fireworks displays or for pyrotechnic special effect activities or flame effects before a proximate audience within the scope of Chapter 56 (See Section 105.6.16). An operational permit per 105.5.16 is required for the temporary storage and retail sale of consumer fireworks, 1.4G permitted by Section 5601.1.3.~~

Section 105.5.53 Lithium batteries. Add a new Section 103.5.53 to read as follows:

105.5.53 Lithium batteries. An operational permit is required for an accumulation of more than 15 cubic feet of lithium-ion and lithium metal batteries, where required by Section 321.1.

Section 105.5.54 Temporary change of use. Add a new Section 105.5.54 to read as follows:

105.5.54 Temporary change of use. An operational permit is required to temporarily change the use of a facility. A maximum of 90 days of use; no extensions or re-issue of permit for a minimum of 8 months.

Section 105.5.55 Other permits not otherwise listed. Add a new Section 105.5.55 to read as follows:

105.5.55 Other permits not otherwise listed. An operational permit may be required for hazardous activities or operations not otherwise specifically listed in this code that the fire code official determines creates a substantial risk or hazard.

Section 105.6 Required construction permits. Amend Section 105.6 to read as follows:

105.6 Required construction permits. The fire code official is authorized to issue construction permits for work as set forth in Sections 105.6.1 through ~~105.6.24-105.6.27.~~

Section 105.6.15 LP-gas. Amend Section 105.6.15 to read as follows:

105.6.15 LP-gas. A construction permit is required for: ~~installation or modification to an LP-gas system.~~

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1. Installation of or modification to an LP-gas system where a single container, cylinder, or tank is more than 125 gallons water capacity; or the aggregate capacity of containers is more than 125 gallons water capacity.

Exception: A permit is not required for individual containers with a 500-gallon water capacity or less or multiple container systems having an aggregate quantity not exceeding 500 gallons, serving occupancies in Group R-3, townhomes, and serving one- and two-family dwellings.

2. One or more LP-gas cabinets associated with a cylinder exchange program.

Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

Section 105.6.20 Solar photovoltaic power systems. Amend Section 150.6.20 to read as follows:

105.6.20 Solar photovoltaic power systems. A construction permit is required to install or modify solar photovoltaic power systems. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

Exceptions: Group R-3, one- and two-family dwelling structures and structures designed and constructed in accordance with the International Residential Code.

Section 105.6.25 Fire protection system demolition permit. Add a new Section 105.6.25 to read as follows:

105.6.25 Fire protection system demolition permit. When a fire protection system, or portion thereof is no longer needed, desired, or required by code, a licensed fire protection contractor shall obtain a permit prior to any demolition or removal of any portion of the system. The request for a demolition permit must include a complete code study showing the system is no longer required and justification for the permanent removal of the system.

Section 105.6.26 Direct Current Fast Charging (DCFC) stations. Add a new Section 105.6.27 to read as follows:

105.6.27 Direct Current Fast Charging (DCFC) stations. A construction permit is required for the installation of any Direct Current Fast Charging (DCFC) stations.

Section 105.6.27 Other permits not otherwise listed. Add a new Section 105.6.26 to read as follows:

105.6.26 Other permits not otherwise listed. A construction permit is required for activities, installations, or operations not otherwise specifically listed in code that the fire code official determines creates a substantial risk or hazard.

SECTION 106 CONSTRUCTION DOCUMENTS

Section 106.1 Submittals. Amend Section 106.1 to read as follows:

[A] 106.1 Submittals. Construction documents and supporting data shall be submitted in two or more sets with each application for a permit and in such form and detail as required by the fire code official. The construction documents shall be prepared by ~~a registered design professional~~ an approved design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

Exception: The fire code official is authorized to waive the submission of construction documents and supporting data not required to be prepared by ~~a registered design professional~~ an approved if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

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Section 106.3 Amended construction documents. Amend Section 106.3 to read as follows:

[A] 106.3 Amended construction documents. Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents. ~~Where field conditions necessitate any substantial change from the approved construction documents, the fire code official shall have the authority to require the amended construction documents to be submitted for approval. Fees may be assessed for time spent on the review of corrected documents in accordance with Section 107 and the adopted fee schedule.~~

SECTION 107 FEES

Section 107.5 Related fees. Amend Section 107.5 to read as follows:

[A] 107.5 Related fees. The payment of the fee for the construction, alteration, removal or demolition, ~~or activity~~ of work done in connection to or concurrently with the work or authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

Section 107.7 Additional and/or Re-inspection fees. Add a new Section 107.7 to read as follows:

~~107.7 Additional and/or Re-inspection fees. Additional and/or Re-inspection fee as set forth in the approved/adopted fee schedule may be assessed for each inspection or reinspection when any portion of work for which inspection is called is not complete or when required corrections have not been completed. This subsection is not to be interpreted as requiring reinspection fees upon initial rejection of work for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before work is ready for the inspection or reinspection's, or if hazards are not abated in the required timeframe. The reinspection fees may be assessed:~~

- ~~1. When the permit is not properly posted and/or the approved plans are not available on the work site; or~~
- ~~2. For failure to provide access on the date for which inspection is requested; or~~
- ~~3. For failure to maintain all work in an exposed condition until inspected and approved for installation; or~~
- ~~4. For deviating from plans requiring the approval of the fire code official; or~~
- ~~5. For lack of sufficient documentation, equipment, or personnel needed to complete the inspection; or~~
- ~~6. The work that an inspection has been called for has not been pretested or is not ready for inspection.~~
- ~~7. Failure to comply with the conditions of the permit.~~
- ~~8. When identified, violations or hazards are not corrected or abated within the specified timeframe.~~

SECTION 111 MEANS OF APPEALS

Section 111.1 Board of appeals. Amend Section 111.1 to read as follows:

[A] 111.1 Board of appeals established. In order to hear and decide appeals of orders, decisions, or determinations made by the fire code official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. ~~The board of appeals shall be appointed by the applicable governing body authority and shall hold office at its pleasure. The fire code official shall be an ex officio member of said board but shall not have a vote on any matter before the board. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the fire code official.~~ The board of appeals shall be established by the provisions of Appendix A of this code. When hearing issues relative to this code, the board of appeals, shall operate in accordance with Appendix A of this code.

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Sections 111.2 Limitations on authority. Delete Section 111.2 in its entirety.

~~[A] 111.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted hereunder thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent method of protection or safety or better form of construction is proposed. The board shall not have authority to waive requirements of this code or interpret the administration of this code.~~

Section 111.3 Qualifications. Delete Section 111.3 in its entirety.

~~[A] 111.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosions, hazardous conditions, or fire protection system, and are not employees of the jurisdiction.~~

Section 111.4 Administration. Delete Sections 111.4 in its entirety.

~~[A] 111.4 Administration. The fire code official shall take immediate action in accordance with the decision of the board.~~

SECTION 112 VIOLATIONS

Section 112.1 Unlawful acts. Amend Section 112.1 to read as follows:

[A] 112.1 Unlawful acts. It shall be unlawful for a person, firm, or corporation to erect, construct, alter, repair, remove, ~~and/or conduct activities~~, demolish or utilize a building, occupancy, premises, or system regulated by this code, or cause the same to be done, in conflict with or in violation of any of the provisions of this code.

Section 112.3.1 Service. Amend Section 112.3.1 to read as follows:

[A] 112.3.1 Service. A notice of violation issued pursuant to this code shall be served on the owner, the owner's authorized agent, operator, occupant, or other person responsible for the condition or violation, either by personal service, mail, or by delivering the same to, and leaving it with, some person of responsibility on the premises. ~~The fire code official is authorized to affix a stop use or cease and desist tag prohibiting the use thereof, until such repairs or alterations are made.~~ For unattended or abandoned locations, a copy of such notice of violation shall be posted on the premises in a conspicuous place at or near the entrance to such premises and the notice of violation shall be mailed by certified mail with a return receipt requested or a certificate of mailing, to the last known address of the owner, the owner's authorized agent, or occupant.

Section 112.4 Violation penalties. Amend Section 112.4 to read as follows:

[A] 112.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair, or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a ~~[SPECIFY OFFENSE]~~ Misdemeanor punishable by a fine of not more than ~~[AMOUNT]~~ Three hundred (\$300.00) dollars or by imprisonment not exceeding ~~[NUMBER OF DAYS]~~ 90 days, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense. ~~Penalties shall be assessed for violations of this code as authorized by C.R.S. 32-1-1002 (3) and (4), or any other applicable federal, state or local law.~~

SECTION 113 STOP WORK ORDER

Section 113.4 Failure to comply. Amend Section 113.4 Failure to Comply to read as follows:

[A] 113.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition,

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shall be subject to a fines established by the authority having jurisdiction **to be not more than Three Hundred (\$300.00) dollars.**

Section 113.5 Penalties. Add a new Section 113.5 to read as follows:

113.5 Penalties. It is unlawful for any person to violate any of the provisions of this part including any provisions of the International Fire Code, International Fire Code Appendices, and International Fire Code Amendments, as adopted. Any person convicted of a violation of any provision set forth in this part shall be punished in accord with the penalties as authorized by C.R.S. 32-1-1002 (3) and (4), or any other applicable federal, state or local law.

CHAPTER 2 DEFINITIONS

SECTION 202 GENERAL DEFINITIONS

Definition HOT WORK AREA. Amend definition HOTWORK AREA to read as follows:

HOT WORK AREA. ~~The An~~ **no less than a 35-foot radius and 15 feet in elevation; above and below, that is** exposed to sparks, hot slag, radiant heat, or convective heat as a result of the hot work.

Definition MINIMUM EXPLOSIVE CONCENTRATION (MEC). Add a definition to read as follows:

MINIMUM EXPLOSIVE CONCENTRATION (MEC). The lowest mass to volume concentration of combustible dust that will propagate a flame (sometimes referred to as LFL). The MEC for grain dust is 0.055 oz. /ft³.

Definition OCCUPANCY CLASSIFICATION. [BG] Institutional Group I-2. Amend Occupancy Conditions to read as follows:

Occupancy Conditions. Buildings of Group I-2 shall be classified as one of the following occupancy conditions and shall comply with Section 407 of the International Building Code:

[BG] Condition 1. This occupancy condition shall include facilities that provide nursing and medical care but do not provide emergency care, surgery, obstetrics, or in-patient stabilization units for psychiatric or detoxification, including, but not limited to, nursing homes, **memory care facilities**, and foster care facilities.

Definition PILE. Add a definition to read as follows:

PILE. Independently stacked commodities possibly organized by separate spacers, dunnage, or pallets in which the demise of any storage container on a lower tier compromises the structural stability of the storage system.

Definition POWERED MICROMOBILITY DEVICES. Add a definition to read as follows:

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.

Definition RACK. Add a definition to read as follows:

RACK. Shelves or similar structural frame-supported system of tiers in which the demise of any storage container on a lower tier does not affect the structural stability of the storage system.

Part II – General Safety Provisions

CHAPTER 3 GENERAL REQUIREMENTS

SECTION 301 GENERAL

Section 301.2 Permits. Amend Section 301.2 to read as follows:

301.2 Permits. Permits shall be required as set forth in Section 105.5 for the activities or uses regulated by Sections 306, 307, 308, 315, ~~and 320, 322, and 324.~~

SECTION 304 COMBUSTIBLE WASTE MATERIAL

SECTION 307 OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIRE PLACES

Section 307.1.2 Burn restrictions and burn bans. Add a new Section 307.1.2 to read as follows:

307.1.2 Burn restrictions and burn bans. The Fire Chief of a fire jurisdiction is authorized to issue a burn restriction or burn ban as deemed necessary when local conditions make recreational fires, open burning, other open flame, or similar activities hazardous or objectionable. County wide burn bans shall be issued by the Fire Warden (El Paso County Sheriff).

Section 307.2.2 Air quality permits. Add a new Section 307.2.2 to read as follows:

307.2.2 Air quality permits. Air quality permits may be required by the State of Colorado Department of Health Air Quality Program for any type of open burning listed in Section 307. It is the responsibility of the permit holder to contact the State of Colorado Department of Health and/or the El Paso County Department of Health to determine if an Air Quality Permit is required.

Section 307.4.1 Bonfires. Amend Section 307.4.1 to read as follows:

307.4.1 Bonfires. A bonfire shall not be conducted within 50 feet (15 240 mm) of a structure or combustible material unless the fire is contained in a barbecue pit. Conditions that could cause a fire to spread within 50 feet (15 240 mm) of a structure shall be eliminated prior to ignition. ~~A bonfire is generally classified as combustible products stacked or organized greater than 3 feet in diameter and 2 feet in height, utilized for any religious, celebratory, or similar purpose.~~

Section 307.4.1.1 Materials. Add a new Section 307.4.1.1 to read as follows:

307.4.1.1 Materials. Bonfires shall be constructed of solid wood products as approved by the fire code official and void of any trash, debris, or rubbish. Bonfires shall not use a flammable liquid as an ignition source.

Section 307.4.2 Recreational fires. Amend Section 307.4.2 to read as follows:

307.4.2 Recreational fires. Recreational fires shall not be conducted within ~~25~~ 10 feet (~~7620 mm~~) of a structure or combustible material. Conditions that could cause a fire to spread within ~~25~~ 10 feet (~~7620 mm~~) of a structure shall be eliminated prior to ignition.

Section 307.5 Attendance. Amend Section 307.5 to read as follows:

307.5 Attendance. Open burning, bonfires, recreational fires, and use of portable outdoor fireplaces shall be constantly attended ~~by a minimum of one alert, ambulatory, unimpaired, responsible adult~~ until the fire is extinguished. ~~Not fewer than A minimum of~~ one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose, or water truck, shall be available for immediate utilization ~~by the responsible attendant.~~

SECTION 308 OPEN FLAMES

Section 308.1.4 Open-flame cooking devices. Amend Section 308.1.4 to read as follows:

308.1.4 Open-flame cooking devices. Charcoal ~~and solid-fuel~~ burners and other open-flame cooking devices shall not be operated on combustible balconies or within 10 feet (3048mm) of combustible construction.

Exceptions:

1. One- and two-family dwellings.
2. Where buildings, balconies, and decks are protected by an automatic sprinkler system.
3. ~~LP~~~~G-gas~~ cooking devices having ~~LP~~~~G-gas~~ container with a water capacity not greater than ~~2-1/2~~ 47 pounds [nominal ~~±~~ 20-pound ~~(0.454 kg)~~ ~~LP~~~~G-gas~~ capacity].

Section 308.1.4.1 Valves. Add a new Section 308.1.4.1 to read as follows:

~~308.1.4.1. Valves. All valves shall be turned off when propane cylinders are not in use.~~

Section 308.1.4.2 Egress from buildings. Add a new Section 308.1.4.2 to read as follows:

~~308.1.4.2 Egress from buildings. Open flame devices shall never be used or stored in or near stairwells, corridors, or other areas that are intended to be used as a means of egress or considered an interior living space.~~

Section 308.2 Permits required. Amend Section 308.2 to read as follows:

308.2 Permits required. Permits shall be obtained from the fire code official in accordance with Section 105.5 prior to engaging in the following activities involving open flame, fire, and burning:

1. Use of a torch or flame-producing device to remove paint from a structure.
2. Use of open flame, fire, or burning in connection with Group A or E occupancies.
3. Use or operation of torches and other devices, machines, or processes liable to start or cause a fire in or on wildfire risk areas.
- ~~4. Use of flame effects before a proximal audience.~~

SECTION 316 HAZARDS TO FIRE FIGHTERS

Section 316.3.1 Modifications and alterations. Add a new section 316.3.1 to read as follows:

~~316.3.1 Modifications and alterations. Modifications, alterations, or changes made to buildings and structures that are of non-approved work and pose a threat to the life and safety of emergency responders are prohibited.~~

SECTION 319 MOBILE FOOD PREPARATION VEHICLES

Section 319.4.1 Fire protection for cooking equipment. Amend Section 319.4.1 to read as follows:

Section 319.4.1 Fire protection for cooking equipment. Cooking equipment shall be protected by automatic fire-extinguishing systems in accordance with Section 904.13.

~~Exception: If the vehicle was designed and constructed or cooking appliances were installed prior to April 1, 2026, or an approval from the fire code official.~~

SECTION 322 STORAGE OF LITHIUM-ION AND LITHIUM METAL BATTERIES. ADD A NEW SECTION 322 TO READ AS FOLLOWS:

~~SECTION 322 - STORAGE OF LITHIUM-ION AND LITHIUM METAL BATTERIES~~

Section 322.1. Add a new Section 322.1 to read as follows:

~~322.1 General. The storage of lithium-ion and lithium metal batteries shall comply with Section 322.~~

~~Exceptions:~~

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1. New or refurbished batteries installed in the equipment, devices, or vehicles they are designed to power.
2. New or refurbished batteries packed for use with the equipment, devices, or vehicles they are designed to power.
3. Batteries in original retail packaging that are rated at 300 watt-hours or less for lithium-ion batteries or contain 25 grams or less of lithium metal for lithium metal batteries.
4. Temporary storage of batteries or battery components during the battery manufacturing process before completion of final quality control checks.
5. Temporary storage of batteries during the vehicle manufacturing or repair process.

Section 322.2 Permits. Add a new Section 322.2 to read as follows:

322.2 Permits. Permits shall be required for an accumulation of more than 15 cubic feet of lithium-ion and lithium metal batteries, other than batteries listed in the exceptions to Section 322.1, as set forth in Section 105.5.53.

Section 322.3 Fire safety plan. Add a new Section 322.3 to read as follows:

322.3 Fire safety plan. A fire safety plan shall be provided in accordance with Section 403.10.6. In addition, the fire safety plan shall include emergency response actions to be taken upon detection of a fire or possible fire involving lithium-ion or lithium metal battery storage.

Section 322.4 Storage requirements. Add a new Section 322.4 to read as follows:

322.4 Storage requirements. Lithium-ion and lithium metal batteries shall be stored in accordance with Section 322.4.1, 322.4.2, or 322.4.3, as applicable.

Section 322.4.1 Limited indoor storage in containers. Add a new Section 322.4.1 to read as follows:

322.4.1 Limited indoor storage in containers. Not more than 5 cubic feet of lithium-ion or lithium metal loose discarded batteries shall be permitted to be stored in containers in accordance with all the following.

1. Containers shall be open-top and constructed of noncombustible materials or shall be approved for battery collection.
2. A second container or group of containers shall be separated by not less than 3 feet of open space, or 10 feet of space that contains combustible materials.
3. Containers shall be located not less than 5 feet from exits or exit access doors.

Section 322.4.2 Indoor storage area. Add a new Section 322.4.2 to read as follows:

322.4.2 Indoor storage areas. Indoor storage areas for lithium-ion and lithium metal batteries, other than those complying with Section 322.4.1, shall comply with Sections 322.4.2.1 through 322.4.2.6.

Section 322.4.2.1 Technical opinion and report. Add a new Section 322.4.2.1 to read as follows:

322.4.2.1 Technical opinion and report. A technical opinion and report complying with Section 104.8.2 shall be prepared to evaluate the fire and explosion risks associated with the indoor storage area and to make recommendations for fire and explosion protection. The report shall be submitted to the fire code official and shall require the fire code official's approval prior to issuance of a permit. In addition to the requirements of Section 104.8.2, the technical opinion and report shall specifically evaluate the following:

1. The potential for deflagration of flammable gases released during a thermal runaway event.
2. The basis of design for an automatic sprinkler system, approved fire suppression system, and fire alarm system. Such design basis shall reference relevant full-scale fire testing or another approved method of demonstrating sufficiency of the recommended design.

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Section 322.4.2.2 Construction requirements. Add a new Section 322.4.2.2 to read as follows:

322.4.2.2 Construction requirements. Where indoor storage areas for lithium-ion and lithium metal batteries are in a building with other uses, battery storage areas shall be separated from the remainder of the building by 2-hour rated fire barriers or horizontal assemblies. Fire barriers shall be constructed in accordance with Section 707 of the International Building Code, and horizontal assemblies shall be constructed in accordance with Section 711 of the International Building Code.

Exceptions:

1. Where battery storage is contained in one or more approved prefabricated portable structures providing a complete 2-hour fire resistance rated enclosure, fire barriers and horizontal assemblies are not required.
2. Where battery storage is limited to new batteries in packaging that has been demonstrated to and approved by the fire code official as sufficient to isolate a fire in packaging to the package interior, fire barriers and horizontal assemblies are not required.

Section 322.4.2.3 Fire protection systems. Add a new Section 322.2.3 to read as follows:

322.4.2.3 Fire protection systems. Indoor storage areas for lithium-ion and lithium metal batteries shall be protected by an automatic sprinkler system complying with Section 903.3.1.1 or an approved alternative fire suppression system. The system design shall be based on recommendations in the approved technical opinion and report required by Section 322.4.2.1.

Section 322.4.2.4 Fire alarm systems. Add a new Section 322.4.2.4 to read as follows:

322.4.2.4 Fire alarm systems. Indoor storage areas for lithium-ion and lithium metal batteries shall be provided with an approved automatic fire detection and alarm system complying with Section 907. The fire detection system shall use air-aspirating smoke detection, radiant energy-sensing fire detection, or both. The system design shall be based on recommendations in the approved technical opinion and report required by Section 322.4.2.1.

Section 322.4.2.5 Explosion control. Add a new Section 322.4.2.5 to read as follows:

322.4.2.5 Explosion control. Where the approved technical opinion and report required by Section 322.4.2.1 recommends explosion control, explosion control complying with Section 911 shall be provided.

Section 322.4.2.6 Reduced requirements. Add a new Section 322.4.2.6 to read as follows:

322.4.2.6 Reduced requirements for storage of partially charged batteries. Indoor storage areas for lithium-ion and lithium metal batteries with a demonstrated state of charge not exceeding 30 percent shall not be required to comply with Sections 322.4.2.1, 322.4.2.2, or 322.4.2.5, provided that procedures for limiting and verifying that the state of charge will not exceed 30 percent have been approved.

Section 322.4.3 Outdoor storage. Add a new Section 322.4.3 to read as follows:

322.4.3 Outdoor Storage. Outdoor storage of lithium-ion or lithium metal batteries shall comply with Sections 322.4.3.1 through 322.4.3.3.

Section 322.4.3.1 Distance from storage to exposures. Add a new Section 322.4.3.1 to read as follows:

322.4.3.1 Distance from storage to exposures. Outdoor storage of lithium-ion or lithium metal batteries, including storage beneath weather protection in accordance with Section 414.6.1 of the International Building Code, shall comply with one of the following.

1. Battery storage shall be located not less than 20 feet from any building, lot line, public street, public alley, public way, or means of egress.

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2. Battery storage shall be located not less than 3 feet from any building, lot line, public street, public alley, public way, or means of egress, where the battery storage is separated by a 2-hour fire-resistance-rated assembly without openings or penetrations and extending 5 feet above and to the sides of the battery storage area.
3. Battery storage shall be located not less than 3 feet from any building, lot line, public street, public alley, public way, or means of egress, where batteries are contained in approved prefabricated portable structures providing a complete 2-hour fire-resistance-rated enclosure.

Section 322.4.3.2 Storage area size limits and separation. Add a new Section 322.4.3.2 to read as follows:

322.4.3.2 Storage area size limits and separation. Outdoor storage areas for lithium-ion or lithium metal batteries, including storage beneath weather protection in accordance with Section 414.6.1 of the International Building Code, shall not exceed 900 sq. ft. The height of battery storage in such areas shall not exceed 10 feet. Multiple battery storage areas shall be separated from each other by not less than 10 feet of open space.

Section 322.4.3.3 Fire Detection. Add a new Section 322.4.3.3 to read as follows:

322.4.3.3 Fire detection. Outdoor storage areas for lithium-ion or lithium metal batteries, regardless of whether such areas are open, under weather protection, or in a prefabricated portable structure, shall be provided with an approved automatic fire detection and alarm system complying with Section 907. The fire detection system shall use radiant energy-sensing fire detection.

SECTION 323 POWERED MICROMOBILITY DEVICES. ADD A NEW SECTION 323 TO READ AS FOLLOWS:

SECTION 323 POWERED MICROMOBILITY DEVICES

Section 323.1 General. Add a new Section 323.1 to read as follows:

323.1 General. Lithium-ion and lithium metal battery-powered micromobility devices shall be operated and maintained in accordance with this section.

Exceptions:

1. Storage, repair, and charging in multi-family occupancies of battery-powered mobility devices, provided that such devices are for personal use by its owner.
2. Charging of a single powered mobility device in any occupancy by its owner.
3. System design shall be based on recommendations in the approved technical opinion and report required by Section 322.4.2.1.

Section 323.2 Battery chargers and equipment. Add a new Section 323.2 to read as follows:

323.2 Battery chargers and equipment. Powered micromobility devices shall be charged in accordance with their listing and the manufacturer's instructions using only the original equipment manufacturer-supplied charging equipment or charging equipment in accordance with the listing and manufacturer's instructions.

Section 323.3 Listing. Add a new Section 323.3 to read as follows:

323.3 Listing. Powered micromobility devices shall be listed and labeled in accordance with UL 2272 or UL 2849, as applicable.

Section 323.4 Battery charging areas. Add a new Section 323.4 to read as follows:

323.4 Battery charging areas. Where approved, powered micromobility devices shall be permitted to be charged in a room or area that complies with all the following:

1. Only listed devices utilizing listed charging equipment shall be permitted to be charged.

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2. Is provided with sufficient electrical receptacles to allow the charging equipment for each device to be directly connected to a receptacle. Extension cords and relocatable power taps shall not be used.
3. Storage of combustible materials, combustible waste, or hazardous materials shall not be permitted.
4. The charging operation shall not be conducted in or obstruct any required means of egress.
5. Removable storage batteries shall not be stacked or charged in an enclosed cabinet unless the cabinet is specially designed and approved for such purpose.
6. A minimum distance of 18 inches shall be maintained between each removable storage battery during charging operations unless each battery is isolated from neighboring batteries by an approved fire-resistant material.
7. A minimum of 18 inches shall be maintained between the locations of the batteries on each powered micromobility device during charging operations.
8. The indoor room or area shall be protected by a fire alarm system utilizing air-aspirating smoke detectors or radiant energy-sensing fire detection.

Section 323.5 Fire safety plan. Add a new Section 323.5 to read as follows:

323.5 Fire safety plan. A fire safety plan shall be provided in accordance with Section 403.10.6. In addition, the fire safety plan shall include emergency response actions to be taken upon detection of a fire or possible fire involving lithium-ion or lithium metal battery storage.

SECTION 324 ELECTRIC VEHICLE (EV) CHARGING STATIONS. ADD A NEW SECTION 324 TO READ AS FOLLOWS:

SECTION 324 ELECTRIC VEHICLE (EV) CHARGING STATIONS.

Section 324.1 Scope. Add a new Section 324.1 to read as follows:

324.1 Scope. Electric vehicle charging stations installed inside of buildings or open parking lots shall be in compliance with the International Building Code, NFPA 70, and this Section as applicable.

Section 324.2 Permit. Add a new Section 324.2 to read as follows:

324.2 Permit. Permits shall be obtained for Direct Current Fast Charging (DCFC) stations as set forth in Section 105.6.

Section 324.3 Access. Add a new Section 324.3 to read as follows:

324.3 Access. Approved fire suppression access shall be provided for all electric vehicle charging stations.

Section 324.4 Listing. Add a new Section 324.4 to read as follows:

324.4 Listing. Electric vehicle charging system equipment shall be listed and labeled in accordance with UL 2202. Electric vehicle supply equipment shall be listed and labeled in accordance with UL 2594.

Section 324.5 Landscape. Add a new Section 324.5 to read as follows:

324.5 Landscape. Landscaping shall not obstruct access to electric vehicle charging stations. Weeds, grass, brush, trash, and other combustible materials shall be kept not less than 10 feet from electrical vehicle charging station.

Section 324.6 Location. Add a new Section 324.6 to read as follows:

324.6 Location. Electric vehicle charging equipment shall be designed and located in a manner that does not create a safety hazard or impede pedestrian, bicycle, or wheelchair movement. Direct current fast charging stations shall not be located above grade or within 25 feet of any exit discharge.

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Section 324.7 Elevation. Add a new Section 324.7 to read as follows:

324.7 Elevation. Electric vehicle charging stations shall not be located in the following areas:

1. Where the floor is located more than 75 feet above the lowest level of fire department vehicle access.
2. Where the floor is located below the lowest level of exit discharge.

Section 324.8 Emergency disconnect. Add a new Section 324.8 to read as follows:

324.8 Emergency disconnect. An emergency disconnect switch shall be located at least 20 feet but not more than 100 feet away from all direct current fast charging stations.

Section 324.9 Labeling and signage. Add a new Section 324.9 to read as follows:

324.9 Labeling and signage. Permanently affixed labels shall be posted on electronic vehicle charging stations identifying voltage, amperage level, and emergency disconnect location as approved by the fire code official. Safety information related to the operation of the charging station may also be required.

Section 324.10 Separation. Add a new section 324.10 to read as follows:

324.10 Separation. Electric vehicle charging stations shall be segregated into groups not exceeding eight (8) parking spaces consecutively. Each group of charging stations shall be separated by one of the following methods:

1. A minimum of 9 feet separation from neighboring vehicles.
2. A 2-hour fire barrier constructed in accordance with Section 707 of the International Building Code and 2-hour horizontal assembly constructed in accordance with Section 711 of the International Building Code, as appropriate.
3. Alternative separation methods may be permitted as approved by the fire code official.

Exception: Fleet vehicles owned by a single entity may be exempt from separation requirements where approved by the fire code official.

Section 324.11 Vehicle impact protection. Add a new Section 324.11 to read as follows:

324.11 Vehicle impact protection. Where provided, vehicle impact protection shall be in accordance with Section 312.

Section 324.12 Maintenance. Add a new Section 324.12 to read as follows:

324.12 Maintenance. Electric vehicle charging stations shall be properly maintained. Contact information shall be provided on the equipment to address the responsible party of equipment malfunction.

Section 324.13 Securing. Add a new Section 324.13 to read as follows:

324.13 Securing. Electric vehicle charging stations shall be capable of securing electrical discharge when vehicles are not connected. Plug shall be secured from non-authorized use and/or tamper.

CHAPTER 4 EMERGENCY PLANNING AND PREPAREDNESS

SECTION 401 GENERAL

Section 401.1 Scope. Amend Section 401.1 to read as follows:

401.1 Scope. Reporting of emergencies, coordination with emergency response forces, emergency plans, and procedures for managing or responding to emergencies shall comply with the provisions of this section.

~~Exception: Firms that have approved on-premises fire fighting organizations and that are in compliance with approved procedures for fire reporting.~~

SECTION 403 EMERGENCY PREPAREDNESS REQUIREMENTS

Section 403.4.3 Assembly points. Amend Section 403.4.3 to read as follows:

403.4.3 Assembly points. Outdoor assembly areas shall be designated and shall be located a safe distance from the building being evacuated so as to avoid interference with fire department operations. **Outdoor assembly areas shall be accessed via an accessible route.** The assembly areas shall be arranged to keep each class separate to provide accountability of all individuals.

Section 403.10.6 Lithium-ion and lithium metal batteries. Add a new Section 403.10.6 to read as follows:

403.10.6 Lithium-ion and lithium metal batteries. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for occupancies that involve activities for the research and development, testing, manufacturing, handling, storage of lithium-ion batteries or lithium metal batteries of a fire area exceeding 500 square feet, or the repair or servicing of vehicles powered by lithium-ion batteries or lithium metal batteries.

Exceptions:

1. New or refurbished batteries installed for use in the equipment or vehicles they are designed to power.
2. New or refurbished batteries packed for use with the equipment or vehicles they are designed to power for merchandizing purposes.
3. New or refurbished lithium-ion batteries rated at no more than 300 Watt-hours and lithium metal batteries containing no more than 25 grams of lithium metal in their original retail packaging.
4. One- and two-family dwellings.
5. The storage, repair, and charging activities associated with personal use in sleeping units and dwelling units of Group R-1 and R-2 occupancies.

Section 403.10.6.1 Mitigation planning. Add a new Section 403.10.6.1 to read as follows:

403.10.6.1 Mitigation planning. The approved fire safety and evacuation plan shall include thermal runaway event mitigation; measures addressing activities undertaken to prevent thermal runaway; early detection of a thermal runaway event; and mitigation measures to be undertaken to limit the size and impact of the event on occupants and the facility.

SECTION 404 FIRE SAFETY, EVACUATION AND LOCKDOWN PLANS

Section 404.2.1 Fire evacuation plans. Amend Section 404.2.1 to read as follows:

404.2.1 Fire evacuation plans. Fire evacuation plans shall include the following:

1. Emergency egress or escape routes and whether evacuation of the building is to be complete by selected floors or areas only or with a defend-in-place response.
2. Procedures for employees who must remain to operate critical equipment before evacuating.
3. Procedures for the use of elevators to evacuate the building where occupant evacuation elevators complying with Section 3008 of the International Building Code are provided.
4. Procedures for assisted rescue for persons unable to use the general means of egress unassisted.
5. Procedures for accounting for employees and occupants after evacuation has been completed.
6. Identification and assignment of personnel responsible for rescue or emergency medical aid.
7. The preferred and any alternative means of notifying occupants of a fire or emergency.
8. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.

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9. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.
10. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.
11. Outdoor assembly areas shall be accessible by all occupants. Outdoor assembly areas shall be designated and shall be located a safe distance, as approved by the fire code official, from the building being evacuated so as to avoid interference with fire department operations.

Section 404.2.2 Fire safety plans. Amend Section 404.2.2 to read as follows:

404.2.2 Fire safety plans. Fire safety plans shall include the following:

1. The procedure for reporting a fire or other emergency.
2. The life safety strategy includes the following:
 - 2.1. Procedures for notifying occupants, including areas with a private mode alarm system.
 - 2.2. Procedures for occupants under a defend in-place response.
 - 2.3. Procedures for evacuating occupants, including those who need evacuation assistance.
3. Site plans indicating the following:
 - 3.1. The occupancy assembly point.
 - 3.2. The locations of fire hydrants.
 - 3.3. The normal routes of fire department vehicle access.
4. Floor plans identifying the locations of the following:
 - 4.1. Exits.
 - 4.2. Primary evacuation routes.
 - 4.3. Secondary evacuation routes.
 - 4.4. Accessible egress routes.
 - 4.4.1. Areas of refuge.
 - 4.4.2. Exterior areas for assisted rescue.
 - 4.5. Refuge areas associated with smoke barriers and horizontal exits.
 - 4.6. Manual fire alarm boxes.
 - 4.7. Portable fire extinguishers.
 - ~~4.8. Occupant-use hose stations.~~
 - 4.9. Fire alarm annunciators and controls.
5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. Identification and assignment of personnel responsible for maintenance, housekeeping, and controlling fuel hazard sources.

SECTION 408 FIRE WATCH. ADD A NEW SECTION 408 TO READ AS FOLLOWS:

SECTION 408 FIRE WATCH

Section 408.1 General. Add a new Section 408.1 to read as follows:

408.1 General. Fire Watch shall be required at the discretion of the fire code official for a building with a disabled fire protection system, or when there are situations that could compromise the public's safety.

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Section 408.2 Fire Watch Duties. Add a new Section 408.2 to read as follows:

408.2 Fire Watch Duties. The primary duty of fire watch personnel shall be to perform constant patrols and watch for the occurrence of fire. The combination of fire watch duties and site security duties is acceptable if approved by the fire code official.

1. Conduct continuous patrols of the entire facility (or affected area)
2. Identify any fire, life, or property hazards.
3. Immediately notify the Fire Department if a fire is discovered by calling 9-1-1.
4. Notify occupants of the facility of the need to evacuate.
5. Maintain a log of Fire Watch activities.
6. Fire Watch personnel cannot have other duties besides their assigned Fire Watch except those assigned or approved by the fire code official.
7. Fire Watch personnel must be familiar with the existing system of the facility.

Section 408.2.1 Fire Watch patrol frequency. Add a new Section 408.2.1 to read as follows:

408.2.1 Fire Watch patrol frequency. Fire Watch personnel shall continuously patrol the entire facility (or affected area) in a manner such that the entire patrol area is inspected every 30 minutes. If the patrol cannot be completed in 30 minutes more personnel are needed to perform the fire watch.

Exception: Based on the risk, facilities such as those with occupant's incapable of self-preservation, shall be patrolled every 15 minutes.

Section 408.2.2 Fire Watch log. Add a new Section 408.2.2 to read as follows:

408.2.2 Fire Watch log. A Fire Watch log shall be maintained on-site. The log must be available at all times until the Fire Watch has been terminated by fire code official. Records shall be made available for review by the fire code official upon request the log shall show the following:

1. Name of the person conducting the Fire Watch.
2. Times that each patrol was started and completed.

Section 408.3 Fire Watch levels. Add a new Section 408.3 to read as follows:

408.3 Fire Watch levels. Levels of Fire Watch are based on occupancy types and shall adhere to Table 408.3(1) and Table 408.3(2). Modification to Fire Watch shall be at the discretion of the fire code official prior to modifications are implemented.

Table 408.3(1) Fire Watch level. Add a new Table 408.3(1) to read as follows:

Table 408.3(1) Fire Watch level

LEVEL 1	Continuous monitoring of the affected area for signs of smoke or fire for the sole purpose of notifying emergency services (dialing 9-1-1)	One or more approved employees of the building owner; security guards; or qualified fire department personnel
LEVEL 2	Same as Level 1 and assist with evacuation	Same as LEVEL 1
LEVEL 3	Same as Level 2 and fire extinguishment / hazard mitigation	One or more qualified fire department personnel. NOTE: An emergency action plan may be required. Established only by fire code official

Table 408.3(2) Fire Watch per occupancy classification. Add a new Table 408.3(2) to read as follows:

Table 408.3 (2) Fire Watch per occupancy classification

Situation	Level of Fire Watch per Occupancy Classification					
	A	B, M	E	H	F, I, R	S
Loss of any required fire protection system	1 or 2	1 ^A	2 ^B	2 or 3	1, 2, or 3	1 ^C , 2 ^D , or 3

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Special circumstances such as an occupant load increase, or the nature of the activity.	3	ESTABLISHED ONLY BY THE FIRE CODE OFFICIAL. AS REQUIRED BY FIRE INSPECTION OR OTHER CIRCUMSTANCES
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- a. All building occupants and/or staff must be notified that the system(s) are out of service.
- b. Only while the building is occupied, and all staff must be notified that the system(s) are out of service.
- c. Stocked but no occupants.
- d. During operations.

Section 408.4 Fire Watch fees. Add a new Section 408.4, to read as follows:

408.4 Fire Watch fees. Fire Watch involving fire department personnel shall have fees assessed as set forth in the approved/adopted fee schedule.

Part III – Building and Equipment Design Features

CHAPTER 5 FIRE SERVICE FEATURES

SECTION 501 GENERAL

Section 501.1 Scope. Amend Section 501.1 to read as follows:

501.1 Scope. Fire service features for buildings, structures, and premises shall comply with this chapter **and Appendix D**.

SECTION 503 FIRE APPARATUS ACCESS ROADS

Section 503.1 Where required. Amend Section 503.1 to read as follows:

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 **and Appendix D**.

Section 503.2 Specifications. Amend Section 503.2 to read as follows:

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8 **and Appendix D**.

Section 503.3 Marking. Amend Section 503.3 to read as follows:

Section 503.3 Marking. Where required by the fire code official, approved signs or other approved notices or markings that include the words “NO PARKING – FIRE LANE” shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility. **Markings shall be provided for and maintained in accordance with section D103.6**

Section 503.4 Obstruction of fire apparatus access roads. Amend Section 503.4 to read as follows:

Section 503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1, **and 503.2.2, Appendix D, and any area marked as a fire lane as described in Section 503.3** shall be maintained at all times.

SECTION 505 PREMISES IDENTIFICATION

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Section 505.1 Address identification. Amend Section 505.1 to read as follows:

505.1 Address identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than ~~4~~ 5 inches (~~102 mm~~) high with a minimum stroke width of 1/2 inch (~~12.7 mm~~). Address size based on distance from the street: up to 75 feet is 5 inches, greater than 75 to 150 feet is 6 inches; greater than 150 feet to 250 feet is 8 inches; and greater than 250 feet is 10 inches. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole, or other sign or means shall be used to identify the structure. Address identification shall be maintained.

Section 505.1.1 Suite numbers. Add a new Section 505.1.1 to read as follows:

505.1.1 Suite numbers. Any area occupied by tenants of a mall or shopping center, or any area used for other than single-unit or multi-unit residential occupancy that abuts a public courtyard or other public space shall be identified by numbers that are a minimum of 4 inches (101.6 mm) in height with a minimum stroke of 1/2 inch (12.7 mm) so as to be plainly visible and legible from a distance of at least fifty (50) feet (1.5 m) from the main entrance to the area.

Section 505.1.2 Addressing of rear doors. Add a new Section 505.1.2 to read as follows:

505.1.2 Addressing of rear doors. The rear door entrance of access doors of all malls, strip centers, commercial center buildings and other areas with multi-tenant spaces shall be identified with the appropriate address number. The address numbers shall be at least 3 inches (76.2 mm) in height and no less than three-eighths (3/8) inch (9.5 mm) stroke. The fire code official may require the installation of address numbers on other locations to prevent confusion in the event of an emergency.

SECTION 506 KEY BOXES

Section 506.1 Where required. Amend Section 506.1 to read as follows:

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for lifesaving, ~~or~~ fire-fighting purposes, ~~or where monitored fire protection systems or elevators exist in the building,~~ the fire code official is authorized to require a key box to be installed ~~on new and existing buildings; and~~ in an approved location. The key box shall be of an approved type listed in accordance with UL 1037 and shall contain keys to gain necessary access as required by the fire code official.

SECTION 507 FIRE PROTECTION WATER SUPPLIES

Section 507.3 Fire Flow. Amend Section 507.3 to read as follows:

507.3 Fire Flow. Fire flow requirements for buildings or portion of buildings and facilities shall be determined ~~by an approved method as outlined in Appendix B of this code.~~

Section 507.5 Fire hydrant systems. Amend Section 507.5 to read as follows:

507.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 507.5.1 through 507.5.6, **NFPA 24, and Appendix C.**

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Section 507.5.1 Where required. Amend Section 507.5.1 to read as follows.

507.5.1 Where required. Where a portion of the facility of building hereafter constructed or moved into or within the jurisdiction is more than ~~400~~ 300 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

1. For Group R3 and Group U occupancies, the distance requirement shall be ~~600~~ 500 feet.
2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be ~~600~~ 500 feet.
3. Use of alternative water supply per NFPA 1142 or the International Wildland-Urban Interface Code as authorized by the fire code official.

Section 507.5.1.1 Hydrant for standpipe. Amend Section 507.5.1.1 to read as follows:

507.5.1.1 Hydrant for standpipe and fire sprinkler systems. Buildings equipped with a standpipe and/or fire sprinkler system installed in accordance with ~~Section 905~~ Chapter 9 shall have a fire hydrant within 100 feet (30.4 m) of the fire department connection.

SECTION 509 FIRE PROTECTION AND UTILITY EQUIPMENT IDENTIFICATION AND ACCESS

Section 509.2.1 Clear space. Add Section 509.2.1 to read as follows:

~~Section 509.2.1 Clear space. A three (3) foot clear space shall be maintained in front of, to the side of, and around, fire protection equipment, to include all fire sprinkler riser assemblies, control valves, fire alarm control panels, fire alarm annunciators, and power supply panels. This clear space shall include an unobstructed path of travel to the fire protection system appurtenances.~~

SECTION 510 EMERGENCY RESPONDER COMMUNICATION COVERAGE

Section 510.4 Technical requirements. Amend section 510.4 to read as follows:

510.4 Technical requirements. Systems, components, and equipment required to provide the emergency responder radio coverage system shall comply with ~~Section 510.4.1 through 510.4.2.5~~ this section, the published technical and performance rules and regulations of the Pikes Peak Radio Communications Network and NFPA 1225 Standard for Emergency Services Communications.

SECTION 511 FIRE FIGHTER AIR REPLENISHMENT SYSTEMS. ADD A NEW SECTION 511 TO READ AS FOLLOWS:

SECTION 511 FIRE FIGHTER AIR REPLENISHMENT SYSTEMS.

Section 511.1 General. Add a new Section 511.1 to read as follows:

511.1 General. Where required by the fire code official, a fire fighter air replenishment system shall be provided in accordance with Appendix L101.2.

CHAPTER 6 BUILDING SERVICES AND SYSTEMS

SECTION 603 ELECTRICAL EQUIPMENT, WIRING AND HAZARDS

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Section 603.5 Relocatable power taps and current taps. Amend Section 603.5 to read as follows:

603.5 Relocatable power taps and current taps. The construction and use of current taps and relocatable taps shall be in accordance with NFPA 70 and this code. ~~Multiplug adapters, such cube adapters, unfused plug strips or any other device not complying with NFPA 70 shall be prohibited.~~

Section 603.5.2 Application and use. Amend Section 603.5.2 to read as follow:

603.5.2 Application and use. Relocatable power taps and current taps shall be directly connected to a permanently installed receptacle.

~~Exceptions:~~

- ~~1. Where approved for use in a Group A occupancy or in a meeting room in a Group B occupancy, not more than five relocatable power taps shall be permitted to be connected together or connected to an extension cord for temporary use to supply power to electronic equipment.~~
- ~~2. Current taps and relocatable power taps shall not be required to connect directly to a permanently installed receptacle outlet where used for 90 days or less for the purpose of testing the performance of such devices.~~

SECTION 611 MAGNETIC RESONANCE IMAGING FACILITIES. ADD A NEW SECTION 611 TO READ AS FOLLOWS:

~~SECTION 611 MAGNETIC RESONANCE IMAGING FACILITIES~~

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

CHAPTER 8 INTERIOR FINISH, DECORATIVE MATERIALS, AND FURNISHINGS

SECTION 806 NATURAL DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS

Section 806.5 Maintenance. Add a new Section 806.5 to read as follows:

~~806.5 Maintenance.~~ Live natural vegetation shall be maintained. Dried out dead vegetation shall be removed.

CHAPTER 9 FIRE PROTECTION SYSTEMS

SECTION 901 GENERAL

Section 901.1.1 Approved Contractors. Add a new Section 901.1.1 to read as follows:

~~901.1.1 Approved Contractors.~~ All fire protection systems and appliances referenced by this code shall be designed, installed, repaired, inspected, tagged, and maintained by an approved licensed contractor. Private fire hydrants shall be inspected and maintained by an approved licensed contractor.

~~Exceptions:~~

- ~~1. Non-rechargeable portable fire extinguishers are permitted to be inspected by a property owner or management company representative. These individuals are not required to maintain an FSC-D license or Service Technician D. Companies conducting inspections on fire extinguishers shall maintain a current copy of NFPA 10 Standard for Portable Fire Extinguishers as a reference for inspection requirements and shall maintain records of annual inspections as required by NFPA 10.~~
- ~~2. New portable fire extinguishers may be installed and tagged by a general contractor, or a business owner/manager without requiring a fire suppression contractor license.~~
- ~~3. The monthly inspection of portable fire extinguishers required by NFPA 10 Standard for Portable Fire Extinguishers, does not have to be performed by a licensed fire suppression contractor.~~

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Section 901.3.1 Administrative permits. Add a new Section 901.3.1 to read as follows:

901.3.1 Administrative permits. Any additions or remodeling to existing commercial sprinkler systems involving 20 sprinkler heads or less, fire alarm systems involving 5 devices or less, or temporary removal of system components during construction, will not require a construction permit when approved by the fire code official. The approved letters shall become the de-facto permit for the scope of work described thereon. The letter submittal and review process shall comply with the guidance documents provided by the fire code official.

Section 901.4.8 System replacement. Add a new Section 901.4.8 to read as follows:

901.4.8 System replacement. Where a fire protection or life safety system is being replaced, the system shall be designed and installed per the current edition of the appropriate NFPA standard. Replacement of fire alarm control units (FACU) shall fall under one of the following conditions:

1. Failure due to damage or age and cannot be repaired or replaced with an identical unit. If the new FACU is not listed as compatible with the remaining existing devices, components, or equipment, the existing required fire alarm system no longer functions as originally designed and installed and the entire system must be brought up to compliance with currently adopted codes and standards.
2. Building or system expansion or modification. If the existing FACU cannot support additional components or equipment resulting from a system expansion of building modification and a new FACU is not listed as compatible with the existing devices, components, or equipment the existing required system must be brought up to compliance with the currently adopted codes and standards.
3. Voluntary replacement. If a new FACU is desired, and one cannot be found that is compatible with the existing devices, components, or equipment, the system must either be left in place as-is or brought up to compliance with currently adopted codes and standards.

Section 901.7 System out of service. Amend Section 901.7 to read as follows:

901.7 Systems out of service. Where a required fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall be either evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service.

Where utilized, fire watches shall be provided with not less than one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires. **Follow fire watch requirements as required in section 408.**

Exception: Facilities with an approved notification and impairment management program. The notification and impairment program for water-based fire protection systems shall comply with NFPA 25

Section 901.7.7 Permanent removal from service. Add a new Section 901.7.7 to read as follows:

901.7.7 Permanent removal from service. When a fire protection system is permanently removed from service it shall be completely removed from the structure, to include all valves, panels, devices, appliances, wiring, piping, appurtenances, fire department connections, etc. The only portion of the system permitted to remain includes portions concealed in walls or ceilings. The water riser stub coming out of the ground and associated fire line shall be abandoned in accordance with the responsible water district standards. A construction permit per 105.6.26 is required prior to any system removal.

SECTION 903 AUTOMATIC SPRINKLER SYSTEM

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Section 903.2.4 Group F-1. Amend Section 903.2.4 to read as follows:

903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 12,000 square feet.
2. A Group F-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet.
4. A Group F-1 occupancy used to manufacture lithium-ion or lithium metal batteries.
5. A Group F-1 occupancy used to manufacture vehicles, energy storage systems or equipment containing lithium-ion or lithium metal batteries where the batteries are installed as part of the manufacturing process.

Section 903.2.7.3 Lithium-ion or lithium metal battery storage. Add a new Section 903.2.7.3 to read as follows:

903.2.7.3 Lithium-ion or lithium metal battery storage. An automatic sprinkler system shall be provided in a room or space within a Group M occupancy where required for the storage of lithium-ion or lithium metal by Section 322 or Chapter 32 of this code.

Section 903.2.9 Group S-1. Amend Section 903.2.9. to read as follows:

903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 12,000 square feet.
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet.
4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet.
5. A Group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet.

Section 903.2.9.1 Repair garages. Amend Section 903.2.9.1 to read as follows:

903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the International Building Code, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 10,000 square feet.
2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 12,000 square feet.
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial motor vehicles where the fire area exceeds 5,000 square feet.
5. A Group S-1 fire area used for the repair of vehicles powered by lithium-ion or lithium metal batteries that exceed 500 square feet.

Section 903.2.11.1.4 Lithium battery laboratories. Add a new Section 903.2.11.1.4 to read as follows:

903.2.11.1.4 Lithium battery laboratories; research and development or testing. An automatic sprinkler system shall be installed throughout the fire areas utilized for the research and development or testing of lithium-ion or lithium metal batteries.

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Section 903.3.1.1 NFPA 13 sprinkler system. Amend Section 903.3.1.1 to read as follows:

903.3.1.1 NFPA 13 sprinkler systems. Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 except as provided in Sections 903.3.1.1.1 and ~~903.3.1.1.2. 903.3.1.1.3.~~

Section 903.3.1.1.1 Exempt locations. Amend Section 903.3.1.1.1 to read as follows:

903.3.1.1.1 Exempt locations. Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved monitored automatic fire detection system in accordance with Section 907.2 and NFPA 72 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction, or contains electrical equipment.

1. A room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. A room or space where sprinklers are considered undesirable because of the nature of the contents, where approved by the fire code official.
3. Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
- ~~4. Rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
- ~~5. Fire service access elevator machine rooms and machinery spaces.~~
- ~~6. Machine rooms, machinery spaces, control rooms, and control spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.~~
4. Safe deposit or other vaults of fire-resistive construction when used for the storage of records, files, and other documents, when stored in metal cabinets.
5. Elevator machine rooms, provided all of the following are met:
 - 5.1. The elevator equipment is to be installed within an enclosure having a fire-resistive rating no less than that specified by the International Building Code
 - 5.2. No combustible storage is permitted to be stored in the room.
 - 5.3. A portable fire extinguisher rated not less than 2A:20BC is provided at the door giving access into the room.

Section 903.3.1.1.3 Shell building design. Add a new Section 903.3.1.1.3 to read as follows:

~~903.3.1.1.3 Shell building design. Fire sprinkler systems in shell buildings, other than specified as a Group B Occupancy, shall be designed according to the requirements set forth in NFPA 13 for Ordinary Hazard Group II criteria.~~

Section 903.3.1.1.4 Lithium-ion or lithium metal batteries. Add a new Section 903.3.1.1.4 to read as follows:

~~903.3.1.1.4 Lithium-ion or lithium metal batteries. Where automatic sprinkler systems are required by this code for areas containing lithium-ion or lithium metal batteries, the design of the system shall be installed in accordance with Section 322.4.2.~~

903.3.5.2 Residential combination services. Amend Section 903.3.5.2 to read as follows:

903.3.5.2 Residential combination services. A single combination water supply shall be permitted provided that the domestic demand is added to the sprinkler demand as required by NFPA ~~13R~~ 13D.

Section 903.3.5.3 Dead-end fire service mains. Add new Section:903.3.5.3 to read as follows:

~~903.3.5.3 Dead-end fire service mains. Unless approved by the fire code official, dead-end fire service mains shall not be used when there is not a reliable secondary or redundant means of water supply within 500 feet of a structure along an approved route.~~

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Section 903.3.5.4 Safety factor in hydraulic information. Add a new Section 903.3.5.4 to read as follows:

903.3.5.4 Safety factor in hydraulic information. A safety factor of 10% shall be incorporated into the fire flow information when designing water-based fire suppression systems.

Section 903.4 Sprinkler system supervision and alarms. Amend Section 903.4 to read as follows:

903.4 Sprinkler system supervision and alarms. Valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area sprinkler systems in accordance with Section 903.3.8.
3. Automatic sprinkler systems installed in accordance with NFPA ~~13R~~ 13D where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths, or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction, and deluge sprinkler systems that are sealed or locked in the open position.
8. Underground key or hub gate valves in roadway boxes.

Section 903.4.2 Alarms. Amend Section 903.4.2 to read as follows:

903.4.2 Alarms. An approved audible and visual device, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

Section 903.4.2.1 Waterflow alarm systems. Add a new Section 903.4.2.1 to read as follows:

903.4.2.1 Waterflow alarm systems. Additional initiating and/or notification devices may be required by the fire code official in normally occupied areas. To include separated occupancies being served by the same automatic sprinkler system.

SECTION 904 ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS

Section 904.2.1 Restriction. Amend Section 904.2.1 to read as follows:

904.2.1 Restriction on using automatic sprinkler system exceptions or reductions. Automatic fire-extinguishing systems shall not be considered alternatives for the purposes of exceptions or reductions permitted for automatic sprinkler systems or by other requirements of this code.

Exception: Data and/or server rooms not exceeding 800 square feet, protected with only an alternative extinguishing system.

Section 904.13.2 System interconnection. Amend Section 904.13.2 to read as follows:

904.13.2 System interconnection. The actuation of the fire extinguishing system shall automatically shut down the fuel and/or electrical power supply to the cooking equipment; any electrical receptacles under the hood and

any receptacle that could be used to power equipment located under the hood shall also be shut down. The fuel and electrical power supply reset shall be manual.

Section 904.13.2.1 Ventilation. Add a new Section 904.13.2.1 to read as follows:

904.13.2.1 Ventilation system interconnection. Upon activation of the fire suppression systems, the exhaust for the hood shall remain on.

Section 904.13.6 Monitoring. Add a new Section 904.13.6 to read as follows:

904.13.6 Monitoring. Where an occupancy is equipped with a fire alarm system in accordance with this code, the cooking system shall be connected to the building fire alarm.

SECTION 905 STANDPIPE SYSTEMS

Section 905.3.1 Height Class III. Amend Section 905.3.1 to read as follows:

905.3.1 Height Class ~~III~~ I. standpipe systems shall be installed throughout a building where any of the following conditions exist:

1. Four or more stories are above or below grade plane.
2. The floor level of the highest story is located more than 30 feet above the lowest level of fire department vehicle access.
3. The floor level of the lowest story is located more than 30 feet below the highest level of fire department vehicle access.

Exceptions:

1. Class I standpipes are permitted in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Class I standpipes are permitted in Group and E occupancies.
3. Class I standpipes are permitted in parking garages.
4. Class I standpipes are permitted in basements equipped throughout with an automatic sprinkler system.
5. Class I standpipes are permitted in buildings where occupant-use hose lines will not be utilized by trained personnel or the fire department.
6. In determining the lowest level of fire department vehicle access, it shall not be required to consider either of the following:
 - 6.1. Recessed loading docks for four vehicles or less.
 - 6.2. Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

Section 905.3.4 Stages. Amend Section 905.3.4 to read as follows:

905.3.4 Stages. Stages greater than 1,000 square feet in area shall be equipped with a Class ~~III~~ I wet standpipe system with ~~1½ inch and~~ 2½ inch hose connections on each side of the stage.

~~Exception: Where the building or area is equipped throughout with an automatic sprinkler system, a 1½ inch hose connection shall be installed in accordance with NFPA 13 or in accordance with NFPA 14 for Class II or III standpipes.~~

Section 905.3.4.1 Hose and cabinet. Delete Section 905.3.4.1 in its entirety:

~~905.3.4.1 Hose and cabinet. The 1½ inch hose connections shall be equipped with sufficient lengths of 1½ inch hose to provide fire protection for the stage area. Hose connections shall be equipped with an approved adjustable fog nozzle and be mounted in a cabinet or in a rack.~~

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Section 905.3.6 Helistops and heliports. Amend Section 905.3.6 to read as follows:

905.3.6 Helistops and heliports. Buildings with a rooftop helistop or heliport shall be equipped with a Class I ~~or~~ ~~III~~ standpipe system extended to the roof level on which the helistop or heliport is located in accordance with Section 2007.5.

Section 905.3.8 Landscaped roofs. Amend Section 905.3.8 to read as follows:

905.3.8 Landscaped roofs. Buildings or structures that have landscaped roofs and that are equipped with a standpipe system shall have the standpipe system extended to the roof level on which the rooftop garden or landscaped roof is located. **Roof top valves shall be protected from tampering.**

Section 905.4 Location of Class I standpipe hose connections. Amend Section 905.4 to read as follows:

905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required interior exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located ~~on the main floor on an intermediate landing~~ unless otherwise approved by the fire code official.

Exceptions: ~~A single hose connection shall be permitted to be installed in the open corridor or open breezeway between open stairs that are not greater than 75 feet (22 860 mm) apart.~~

1. A single hose connection shall be permitted to be installed in the open corridor or open breezeway between open stairs that are not greater than 75 feet apart.
 2. Where stairways are constructed with a vestibule in accordance with the International Building Code, the hose connections may be installed inside the floor level vestibule.
2. On each side of the wall adjacent to the exit opening of a horizontal exit.
Exception: where floor area adjacent to a horizontal exit are reachable from an interior exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal exit.
3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.
Exception: Where floor areas adjacent to an exit passageway are reachable from an interior exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.
4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.
5. Where the roof has a slope less than 4 units vertical in 12 units horizontal (33.3-percent slop), a hose connection shall be located to serve the roof or at the highest landing of an interior exit stairway with access to the roof provided in accordance with Section 1011.2.
6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.

SECTION 906 PORTABLE FIRE EXTINGUISHERS

Section 906.1 Where required. Amend Section 906.1 to read as follows:

906.1 Where required. Portable fire extinguishers shall be installed in all of the following locations:

1. In new and existing Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.

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Exceptions:

1. In group R-2 occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each dwelling unit is provided with a portable fire extinguisher having a minimum rating of 1-A:10-B:C.
2. In Group E occupancies portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each classroom is provided with a portable fire extinguisher having a minimum rating of 2-A:20-B:C.
3. In storage areas of Group S occupancies where forklift powered industrial truck or powered cart operators are the primary occupants, fixed extinguishers, as specified in NFPA 10, shall not be required where in accordance with all of the following:
 - 3.1. Use of vehicle-mounted extinguishers shall be approved by the by the fire code official.
 - 3.2. Each vehicle shall be equipped with a 10-pound, 40A:80B:C extinguisher affixed to the vehicle using a mounting bracket approved by the extinguisher manufacturer of the fire code official for vehicular use.
 - 3.3. Not less than two spare extinguishers of equal or greater rating shall be available onsite to replace a discharged extinguisher.
 - 3.4. Vehicle operators shall be trained in the proper operation, use and inspection of extinguishers.
 - 3.5. Inspections of vehicle-mounted extinguishers shall be performed daily.
2. Within 30 feet (9144 mm) distance of travel from commercial cooking equipment and from domestic cooking equipment in Group I-1; I-2, Condition 1; and R-2 college dormitory occupancies.
3. In areas where flammable or combustible liquids are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 3316.1
5. Where required by the sections indicated in Table 906.1.
6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire code official.
7. **Main electrical rooms not provided with fire sprinklers.**

Section 906.2.1. Amend Section 906.2.1 by adding an exception, to read as follows:

906.2.1 Certification of service personnel for portable fire extinguishers. Service personnel providing or conducting maintenance on portable fire extinguishers shall possess a valid certificate issued by an approved governmental agency, or other approved organization for the type of work performed.

Exception: Certification or licensing is not required for fire authorities or their employees who are maintaining and recharging air-pressurized-water (APW) extinguishers which are the property of the fire authority.

Section 906.5.1 Storage of extinguishers. Add a new Section 906.5.1 to read as follows:

906.5.1 Storage of extinguishers. Occupancies that store used, or serviced extinguishers shall have a storage closet or cabinet, enclosed by a solid surface, or by other means determined by the fire code official.

SECTION 907 FIRE ALARM AND DETECTION SYSTEMS

Section 907.1 General. Amend Section 907.1 to read as follows:

907.1 General. This section covers the application, installation, performance, and maintenance of fire alarm systems and their components in new and existing buildings and structures. The requirements of Section 907.2 apply new buildings and structures, **new fire alarm systems in existing buildings, and complete fire alarm system replacements.** The requirements of Section 907.9 are applicable to new and existing buildings and structures.

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Section 907.2 Where required. Amend Section 907.2 to read as follows:

907.2 Where required – new buildings and structures. An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through ~~907.2.23~~ **907.2.25.1** and provide occupant notification in accordance with Section 907.5 unless other requirements are provided by another section of this code.

Not fewer than one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or waterflow detection devices. Where other sections of this code allow the elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.

Exceptions:

1. The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service.
2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the fire code official to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is open to the public.

Section 907.2.2.2 Laboratories. Add a new Section 907.2.2.2 to read as follows:

907.2.2.2 Lithium battery laboratories; research and development or testing. A fire alarm system shall be installed throughout the fire areas utilized for the research and development or testing of lithium-ion or lithium metal batteries.

Section 907.2.4.1 Manufacturing involving lithium-ion or lithium metal batteries. Add a new Section 907.2.4.1 to read as follows:

907.2.4.1 Manufacturing involving lithium-ion or lithium metal batteries. The fire alarm systems shall be required and designed in accordance with Section 322.4.2.

Section 907.2.6.2 Group I-2. Amend Section 907.2.6.2 to read as follows:

907.2.6.2 Group I-2. An automatic smoke detection system shall be installed in corridors in Group I-2, Condition 1 facilities, and spaces permitted to be open to the corridors by Section 407.2 of the International Building Code. The system shall be activated in accordance with Section 907.4. Group I-2, Condition 2 occupancies shall be equipped with an automatic smoke detection system as required in Section 407 of the International Building Code.

Exceptions:

1. Corridor smoke detection is not required in smoke compartments that contain sleeping units where such units are provided with **addressable** smoke detectors that comply with UL 268. Such detectors ~~shall provide a visual display on the corridor side of each sleeping unit and~~ shall provide an audible and visual alarm at the care providers' station attending each unit.
2. Corridor smoke detection is not required in smoke compartments that contain sleeping units where sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

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Section 907.2.7.2 Storage of lithium-ion or lithium metal batteries. Add a new Section 907.2.7.2 to read as follows:

907.2.7.2 Storage of lithium-ion or lithium metal batteries. The fire alarm systems shall be required in accordance with Section 322 and designed in accordance with Section 322.4.2.

Section 907.2.10.1 Storage of lithium-ion or lithium metal batteries. Add a new Section 907.2.10.1 to read as follows:

907.2.10.1 Storage of lithium-ion or lithium metal batteries. The fire alarm systems shall be required and designed in accordance with Section 322.4.2.

Section 907.2.24 Main electrical rooms. Add a new Section 907.2.24 to read as follows:

907.2.24 Main electrical rooms. Main electrical rooms permitted to be nonsprinklered under NFPA 13 shall be provided with an approved monitored automatic smoke detection system installed in accordance with NFPA 72 and electronically supervised by an approved supervising station in accordance with this code.

Section 907.4.4 Lithium-ion or lithium metal batteries. Add a new Section 907.4.4 to read as follows:

907.4.4 Lithium-ion or lithium metal batteries. Where fire alarm systems are required by this code for areas containing lithium-ion or lithium metal batteries, the design of the system shall be installed in accordance with Section 322.4.2.

Section 907.5.2.2 Emergency voice/alarm. Amend Section 907.5.2.2 to read as follows:

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler water-flow device, or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions on a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings, the system shall operate on at least the alarming floor, the floor above, the floor below, **the main ground level, and the highest occupied floor**. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Chapter 2.

SECTION 910 SMOKE AND HEAT REMOVAL

Section 910.3.5 Fusible link temperature rating. Amend Section 910.3.5 to read as follows:

910.3.5 Fusible link temperature rating. Where vents are installed in areas provided with automatic fire sprinklers and the vents operate by a fusible link, the fusible link shall have a temperature rating of **360 F (182 C) at least 100 F above the operating temperature of the fire sprinklers.**

SECTION 912 FIRE DEPARTMENT CONNECTIONS

Section 912.2.3 Multiple Fire Departments Connections (FDC). Add a new Section 912.2.3 to read as follows:

912.2.3 Multiple Fire Department Connections (FDC). When the demand of a sprinkler system exceeds 1,500 gallons per minute, additional fire department connections shall be provided and located as required by the fire code official. All FDC's shall be of equal capacity.

SECTION 914 FIRE PROTECTION BASED ON SPECIAL DETAILED REQUIREMENTS OF USE AND OCCUPANCY

Section 914.12 Extraction operations. Add a new Section 904.12 to read as follows:

914.12 Extraction operations. Extraction rooms, booths, or hoods, including ductwork where required for hazardous exhaust systems, shall be protected by an approved automatic fire-extinguishing system complying with Chapter 9 where any of the following exist:

1. Extraction processes utilizing flammable and/or combustible materials, or off-gassing flammable vapors from spent plant material or oil.
2. Vapors are released exceeding 25% of the lower flammable limit from flammable liquid extraction processes or flammable liquid post-oil processing.

CHAPTER 10 MEANS OF EGRESS

SECTION 1009 ACCESSIBLE MEANS OF EGRESS

Section 1009.8 Two-way communication. Amend Section 1009.8 to read as follows:

1009.8 Two-way communication. A two-way communication system complying with Sections 1009.8.1, ~~and~~ 1009.8.2, ~~and NFPA 72~~ shall be provided at the landing serving each elevator or bank of elevators on each accessible floor that is one or more stories above or below the level of exit discharge.

Exceptions:

1. Two-way communication systems are not required at the landing serving each elevator or bank of elevators where the two-way communication system is provided within areas of refuge in accordance with Section 1009.6.5.
2. Two-way communication systems are not required on floors provided with ramps conforming to the provisions of Section 1012.
3. Two-way communication systems are not required at the landings serving only service elevators that are not designated as part of the accessible means of egress or serve as part of the required accessible route into a facility.
4. Two-way communication systems are not required at the landings serving only freight elevators.
5. Two-way communication systems are not required at the landing serving a private residence elevator.
6. Two-way communication systems are not required in Group I-2 or I-3 facilities.

CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

SECTION 1101 GENERAL

Section 1101.4.4 Variance. Add a new Section 1101.4.4 to read as follows:

1101.4.4 Variance. The authority having jurisdiction (AHJ) may issue a variance to any of the provisions of Chapter 11 where it is not practical or poses an undue hardship. Granting of a variance shall be based on showing of good cause and a request shall be made in writing from the building owner.

SECTION 1107 EXISTING HIGH PILED STORAGE FACILITIES. ADD A NEW SECTION 1107 TO READ AS FOLLOWS:

SECTION 1107 EXISTING HIGH PILED STORAGE FACILITIES

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Section 1107.1 Scope. Add a new Section 1107.1 to read as follows:

1107.1 Scope. Existing buildings utilizing high pile storage defined by Chapter 32 in which no official record exists; such as certificate of occupancy, fire department records, or similar verifying high pile use, the building shall comply with this section.

Section 1107.2 General. Add a new Section 1107.2 to read as follows:

1107.2 General. Based on the storage arrangement and commodity class, existing buildings shall comply with Table 3206.2.

Section 1107.3 Performance requirements. Add a new Section 1107.3 to read as follows.

1107.3 Performance requirements. Where structural limitations, as determined by an engineering analysis by a Colorado registered structural engineer, prohibits compliance with Chapter 32, storage arrangement and commodity class shall be in compliance with 104.9 of this code. Such performance alternatives shall be submitted for review and approved by the fire code official.

SECTION 1108 EXISTING ELECTRICAL ENERGY STORAGE SYSTEMS. ADD A NEW SECTION 1108 TO READ AS FOLLOWS:

SECTION 1108 EXISTING ELECTRICAL ENERGY STORAGE SYSTEMS

Section 1108.1 Scope. Add a new Section 1108.1 to read as follows:

1108.1 Scope. Existing buildings utilizing existing electrical energy storage systems (ESS) as defined by Section 1207, shall comply with this section.

Section 1108.2 Permit. Add a new Section 1108.2 to read as follows:

1108.2 Permits. An operational permit will be required per Section 105.5.14.

Section 1108.2.1 Permit requirements. Add a new Section 1108.2.1 to read as follows:

1108.2.1 Permit requirements. In order to obtain an operational permit, the following must be reviewed and approved by the fire code official:

1. Hazard mitigation analysis per Section 1207.1.4.
2. Fire remediation plan per Section 1207.1.6.
3. Decommissioning plan per Section 1207.2.3.

Section 1108.3 Repairs. Add a new Section 1108.3 to read as follows:

1108.3 Repairs. Repairs of ESS systems with OEM compatible parts shall comply with Section 1207.3.6.

Section 1108.4 System replacement. Add a new Section 1108.4 to read as follows:

1108.4 System Replacement. Replacement of ESS systems shall comply with Section 1207.3.8.

Section 1108.5 Inspection and testing. Add a new Section 1108.5 to read as follows:

1108.5 Inspection and testing. Inspection and testing of existing ESS systems shall comply with Section 1207.2.2.1.

CHAPTER 12 ENERGY SYSTEMS

SECTION 1207 ELECTRICAL ENERGY STORAGE SYSTEMS (ESS)

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Section 1207.1 Scope. Amend Section 1207.1 to read as follows:

1207.1.1 Scope. ESS having capacities exceeding the values shown in Table 1207.1.1 shall comply with this section **and NFPA 855 Standard for the Installation of Stationary Energy Storage Systems as required by the fire code official.**

CHAPTER 13 RESERVED

CHAPTER 14 RESERVED

CHAPTER 15 RESERVED

CHAPTER 16 RESERVED

CHAPTER 17 RESERVED

CHAPTER 18 RESERVED

CHAPTER 19 RESERVED

PART IV – SPECIAL OCCUPANCIES AND OPERATIONS

CHAPTER 20 AVIATION FACILITIES

SECTION 2006 AIRCRAFT FUELING

Section 2006.4.1.1 Documentation. Add a new Section 2006.4.1.1 to read as follows:

2006.4.1.1 Documentation. A vehicle maintenance checklist for aircraft-fueling vehicles shall be documented on a daily basis by the apparatus operator, in accordance with current Air Transport Association (ATA) Specification form 103.04A.

SECTION 2007 HELISTOPS AND HELISPORTS

Section 2007.1 General. Amend Section 2007.1 to read as follows:

2007.1. General. Helistops and heliports shall be maintained in accordance with Sections 2007.2 through 2007.8. Helistops and heliports on buildings shall be constructed in accordance with the International Building Code, **and NFPA 418 Standard for Heliports.**

Section 2007.5 Standpipe systems. Amend Section 2007.5 to read as follows:

2007.5 Standpipe systems. A building with a rooftop helistop or heliport shall be provided with a Class I ~~or~~ **Class III** standpipe system extended to the roof level on which the helistop or heliport is located. All portions of the helistop and heliport area shall be within 150 feet of a 2½-inch outlet on the standpipe system.

CHAPTER 21 DRY CLEANING

CHAPTER 22 COMBUSTIBLE DUST PRODUCING FACILITIES

CHAPTER 23 MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES

SECTION 2303 LOCATION OF DISPENSING DEVICES

Section 2303.2 Emergency disconnect switches. Amend Section 2303.2 to read as follows:

2303.2. Emergency disconnect switches. ~~An approved, clearly identified and readily accessible emergency disconnect switch shall be provided at an approved location to stop the transfer of fuel dispensers in the event of a fuel spill or other emergency. The emergency disconnect switch for exterior fuel dispensers shall be located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from the fuel dispensers. For interior fuel-dispensing operations, the emergency disconnect switch shall be installed at an approved location. Such devices shall be distinctly labeled as EMERGENCY FUEL SHUTOFF. Signs shall be provided in approved locations.~~ Approved, clearly identified, and readily accessible emergency disconnect switches shall be provided at approved locations to stop the transfer of fuel to the fuel dispensers in the event of a fuel spill or other emergency.

Two emergency disconnect switches for exterior fuel dispensers shall be required as follows:

1. Exterior: Shall be located within 100 feet (30.4 m) of, but not less than 20 feet (6 m) from, the fuel dispensers. The switch shall be a mushroom-style switch/ that is readily accessible and must cut off power to all dispensers and pumps.
2. Interior: Shall be located at the attendant duty location. The switch shall be a mushroom-type switch/button which will shut off the flow of fuel and cut off power to all dispensers and pumps.
3. Emergency disconnect switches shall shut off the power in conformance with NFPA 70 and NFPA 30A.
4. Emergency controls shall be of a type that is only manually resettable.

For interior fuel-dispensing operations, the emergency disconnect switch shall be installed at an approved location along the path of egress.

Section 2303.2.2 Emergency disconnect switch signage. Add a new Section 2303.2.2 to read as follows:

2303.2.2 Emergency disconnect switch signage. Signs shall be provided in approved locations and of the legible size as follows:

1. Interior: At least 1 inch (25.2 mm) in height and 1/8-inch (3.175 mm) stroke red on white background.
2. Exterior: At least 2 inches (51 mm) in height and 1/4-inch (6.35 mm) stroke red on white background.

CHAPTER 24 FLAMMABLE FINISHES

CHAPTER 25 FRUIT CROP RIPENING

CHAPTER 26 FUMIGATION AND INSECTICIDAL FOGGING

CHAPTER 27 SEMICONDUCTOR FABRICATION FACILITIES

CHAPTER 28 LUMBER YARDS

CHAPTER 29 MANUFACTURE OF ORGANIC COATINGS

CHAPTER 30 INDUSTRIAL OVENS

CHAPTER 31 TENTS, TEMPORARY SPECIAL EVENT STRUCTURES

CHAPTER 32 HIGH-PILED COMBUSTIBLE STORAGE

SECTION 3201 GENERAL

Section 3201.5 Facility closure. Add a new Section 3201.5 to read as follows:

3201.5. Facility closure. Facilities containing permitted high-piled storage areas, that are no longer utilizing high-piled storage practices shall comply with sections 3201.5.1 through 3201.5.2.

Section 3201.5.1 Temporarily out-of-service facilities. Add a new Section 3201.5.1 to read as follows:

3201.5.1. Temporarily out-of-service facilities. Facilities without a high-piled combustible storage operational permit; containing fire protection systems not being monitored or inspected on a regular basis shall be deemed permanently out of service and shall be closed in an approved manner complying with section 3201.5.2. High-piled combustible storage facilities that do not meet this section are considered temporarily out of service and shall continue to maintain a permit, monitoring, and inspections.

Section 3201.5.2 Facility closure plan. Add a new Section 3201.5.2 to read as follows:

3201.5.2. Facility closure plan. When a high-piled combustible storage facility is considered for permanent closure as defined in Section 3201.5.1, the permit holder for the facility shall apply for closure approval by submitting an application to the fire code official a minimum of 30 days prior to facility closure. The closure plan shall be finalized by an owner/operator scheduled inspection to verify compliance with the application and close out the operational permit.

SECTION 3205 HOUSEKEEPING AND MAINTENANCE

Section 3205.7 Designation. Amend Section 3205.7 to read as follows:

3205.7 Designation of storage heights. Where required by the fire code official, an approved visual method of indicating the maximum allowable storage height shall be provided.

SECTION 3211 BUILDINGS CONTAINING AREAS CAPABLE OF ACCOMMODATING HIGH PILE COMBUSTIBLE STORAGE. ADD A NEW SECTION 3211 TO READ AS FOLLOWS:

SECTION 3211 BUILDINGS CONTAINING AREAS CAPABLE OF ACCOMMODATING HIGH PILE COMBUSTIBLE STORAGE

Section 3211.1 General. Add a new Section 3211.1 to read as follows:

3211.1 General. Any building containing an area capable of high piled storage, but otherwise not meeting definitions and/or requirements of this chapter, shall be maintained in accordance with section 3211.2.

Section 3211.2 Designation of storage heights. Add a new Section 3211.2 to read as follows:

3211.2 Designation of storage heights. Areas capable of high piled combustible storage, but currently not being utilized as such, shall have visual storage height limits displayed in accordance with Section 3205.7.

SECTION 3212 EXISTING BUILDINGS. ADD A NEW SECTION 3212 TO READ AS FOLLOWS:

SECTION 3212 EXISTING BUILDINGS

Section 3212.1 General. Add a new Section 3212.1 to read as follows:

3212.1 General. Existing facilities containing high piled combustible storage areas shall be in accordance with Section 1107.

CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION & DEMOLITION

SECTION 3301 GENERAL

Section 3301.1 Scope. This chapter shall apply to structures in the course of construction, alteration or demolition, including those in underground locations. Compliance with NFPA 241 is required for items not specifically addressed herein. This scope applies to commercial, multi-family residential, and townhouse developments.

Exception: One and Two-Family Dwellings, not including townhouses as specified above, shall comply with Chapter 33 but shall be exempt from sections 3303.1, 3303.1.1, 3303.2, and 3303.3.

SECTION 3303 OWNER'S RESPONSIBILITY FOR FIRE PROTECTION

Section 3303.3.1 Violations. Delete Section 3303.3.1 in its entirety.

~~3303.3.1 Violations. Failure to properly conduct, document and maintain documentation required by this section shall constitute an unlawful act in accordance with Section 112.1 and shall result in the issuance of a notice of violation to the site safety director in accordance with Section 112.3. Upon the third offense, the fire code official is authorized to issue a stop work order in accordance with Section 113, and work shall not resume until satisfactory assurances of future compliance have been presented to and approved by the fire code official.~~

SECTION 3311 ACCESS FOR FIRE FIGHTING

3311.1.1 Minimum specifications for temporary roads. Add a new Section 3311.1.1 to read as follows:

3311.1.1. Minimum specifications for temporary roads. Temporary access roads shall be an all-weather surface comprised of either the first lift of asphalt or concrete/compacted gravel to a thickness capable of supporting the imposed loads of fire department apparatus. A 20-ft minimum width shall be maintained unless the permanent road is designed less than 20-ft, in which case the temporary road shall be the intended width of the permanent road. Adequate street signs and fire lane signs shall be installed where applicable. Temporary access roads must be approved by the fire code official and maintained in accordance with this section.

SECTION 3312 MEANS OF EGRESS

Section 3312.1 Stairways required. Amend Section 3312.1 to read as follows:

3312.1 Stairways required. Where building construction exceeds ~~40~~ **30** feet to an occupiable floor level in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be provided. As construction progresses, such stairway shall be extended to within one floor of the highest point of construction having secured decking or flooring.

SECTION 3313 WATER SUPPLY FOR FIRE PROTECTION

Section 3313.2 Combustible building materials. Amend Section 3313.2 to read as follows:

3313.2 Combustible building materials. When combustible building materials of the building under construction are delivered to a site, a minimum fire flow of ~~500 gallons per minute~~ **that equal to the building size and type referenced in Table B105.1(2)** shall be provided. The fire hydrants used to provide this fire-flow supply shall be within ~~500 feet~~ **the requirements of Table C102.1** of the combustible building materials, as measured along an approved fire apparatus access lane. ~~Where the site configuration is such that one fire hydrant cannot be located~~

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~~within 500 feet of all combustible building materials, additional fire hydrants shall be required to provide coverage in accordance with this section.~~

Section 3313.3.1 Fire separation up to 30 feet. Amend Section 3303.3.1 to read as follows:

3313.3.1 Fire separation up to 30 feet. Where a building of Type III, IV, or V construction has a fire separation distance of less than 30 feet from property lot lines, and an adjacent property has an existing structure or otherwise can be built on, the water supply shall provide the minimum ~~of 500 gallons per minute or the entire fire flow required~~ fire flow of that equal to the building size and type referenced in Table B105.1(2) for the building ~~when constructed, whichever is greater.~~

Section 3313.3.2 Fire separation of 30 feet up to 60 feet. Amend Section 3313.3.2 to read as follows:

3313.3.2 Fire separation of 30 feet up to 60 feet. Where a building of Type III, IV, or V construction has a fire separation distance of 30 feet up to 60 feet from property lot lines, and an adjacent property has an existing structure or otherwise can be built on, the water supply shall provide a minimum ~~of 500 gallons per minute (1893 L/m) or 50 percent of the fire flow required~~ fire flow of that equal to the building size and type referenced in Table B105.1(2) for the building ~~when constructed, whichever is greater.~~

Section 3313.3.3 Fire separation of 60 feet or greater. Amend Section 3313.3.3 to read as follows:

3313.3.3 Fire separation of 60 feet or greater. Where a building of Type III, IV, or V construction has a fire separation of 60 feet or greater from a property lot line, ~~a water supply of 500 gallons per minute (1893 L/m) shall be provided.~~ a water supply shall provide the minimum fire flow required for the building size and type referenced in Table B105.1(2) for the building.

Section 3313.4 Vertical construction. Amend Section 3313.4 to read as follows:

3313.4 Vertical construction, Type I and II construction. ~~If~~ **When** combustible building materials **and/or fuel-powered stationary equipment** are delivered to the construction site, water supply in accordance with Section 3313.2 shall be provided. ~~Additional water supply for fire flow is not required prior to commencing vertical construction of Type I and II buildings.~~

SECTION 3314 STANDPIPES

Section 3314.1 Where required. Amend Section 3314.1 to read as follows:

3314.1 Where required. In buildings required to have standpipes by Section 905.3.1, not less than one standpipe shall be provided for use during construction. Such standpipes shall be installed prior to construction exceeding ~~40~~ 30 feet in height above the lowest level of fire department vehicle access. Such standpipes shall be provided with fire department hose connections at locations adjacent to stairways complying with Section 3312.1. As construction progresses, such standpipes shall be extended to within one floor of the highest point of construction having secured decking or flooring. **Additional standpipes may be required by request of the fire code official.**

SECTION 3319 ONE AND TWO-FAMILY DWELLINGS. ADD A NEW SECTION 3319 TO READ AS FOLLOWS:

SECTION 3319 ONE- AND TWO-FAMILY DWELLINGS.

3319.1 Where required. Add a new Section 3319.1 to read as follows:

3319.1 Where required. New One and Two-Family Dwellings shall comply with this section. The following items are to be inspected by a qualified person and documented in accordance with section 3303.3. This list shall include the following as applicable:

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1. Fire hydrants are operational, clearly visible from access roads and are not obstructed.
2. Temporary heating equipment shall be in accordance with section 3304.
3. Street signs are visible and installed.
4. Construction site addressing visible and clear of obstructions.
5. Control of combustible waste material in accordance with section 3305.
6. Fire apparatus access roads required by section 3311 are maintained clear of obstructions that reduce the width of the usable roadway to less than 20 feet.
7. Portable fire extinguisher(s) on site and quickly accessible for use by all trades.
8. Any trades conducting hot work shall comply with section 3303.8.

CHAPTER 34 TIRE REBUILDING AND TIRE STORAGE

SECTION 3408 FIRE PROTECTION

Section 3408.3 Fire sprinklers. Add a new Section 3408.3 to read as follows:

3408.3 Fire sprinklers. Where the area for storage of tires exceeds the requirements of Section 903.2.9.2, the area shall be sprinklered in accordance with Section 903.3.1.1.

CHAPTER 35 WELDING AND OTHER HOT WORK

CHAPTER 36 MARINAS

CHAPTER 37 COMBUSTIBLE FIBERS

CHAPTER 38 HIGHER EDUCATION LABS

CHAPTER 39 PROCESSING AND EXTRACTION FACILITIES

SECTION 3903 PROCESSING AND EXTRACTION

Section 3903.1 Construction. Amend Section 3903.1 to read as follows:

3903.1 Construction. Processing shall be in a building complying with the International Building Code and Sections 3903.1.1 through 3903.7.1.

Section 3903.1.1 Extraction rooms. Add a new Section 3903.1.1 to read as follows:

3903.1.1 Extraction rooms. Extraction rooms utilizing hazardous materials shall be fully enclosed in accordance with the International Building Code.

Exception: Enclosed booths constructed in accordance with Chapter 24.

Section 3903.1.2 Penetrations. Add a new Section 3903.1.2 to read as follows:

3903.1.2 Penetrations. Shall be comply with Section 703

Section 3903.1.3 Means of egress. Add a new Section 3903.1.3 to read as follows:

3903.1.3 Means of egress. Means of egress shall comply with the following:

1. Exit doors leading from the extraction room shall swing in the direction of egress.
2. Exit doors from the extraction room must be provided with panic hardware.

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Section 3903.1.4 Fire protection. Add a new Section 3903.1.4 to read as follows:

3903.1.4 Fire protection. Extraction rooms, booths, or hoods, including ductwork where required for hazardous exhaust systems, shall be protected by an approved automatic fire-extinguishing system complying with Chapter 9 where any of the following exist:

1. Extraction processes utilizing flammable and/or combustible materials, or off-gassing flammable vapors from spent plant material or oil.
2. Vapors are released exceeding 25% of the lower flammable limit from flammable liquid extraction processes or flammable liquid post-oil processing.

Section 3903.1.5 Electrical equipment. Add a new Section 3903.1.5 to read as follows:

3903.1.5 Electrical equipment. Extraction rooms, hoods, or booths utilizing hazardous materials shall be classified as a Class 1 Division 1 area in accordance with NFPA 70.

Section 3903.7 Smoking and open flames. Add a new Section 3903.7 to read as follows:

3903.7 Smoking and open flames. Smoking, open flames, direct-fired heating devices, and other similar equipment shall be prohibited in areas where flammable vapors exist.

Section 3903.7.1 Smoking. Add a new Section 3903.7.1 to read as follows:

3903.7.1 Smoking. Smoking shall be prohibited, and "No Smoking" signs shall be provided in accordance with Section 5003.7.1.

SECTION 3904 SYSTEMS AND EQUIPMENT

Section 3904.3 Equipment field verification. Add a new Section 3904.3 to read as follows:

3904.3 Equipment field verification. All newly installed extraction equipment shall be inspected, and location field verified by the fire code official.

Section 3904.3.1 Re-certification. Add a new Section 3904.3.1 to read as follows:

3904.3.1 Re-certification. The extraction equipment shall be re-certified every 2 years by the manufacturer or by an approved third party. The re-certification report shall include the following items from 3904.2.2.2: 1-5, 7 & 9-11.

Section 3904.4 Refrigerated equipment. Add a new Section 3904.4 to read as follows:

3904.4 Refrigerated equipment. Refrigerators, freezers, and other cooling equipment used to store or process flammable and/or combustible materials shall be listed for the storage of flammable/combustible liquids or be listed for Class 1, Division 1 locations. Equipment shall be in accordance with NFPA 45 and applicable provisions of the International Building Code and this code.

Section 3904.5 Explosion hazards. Add a new Section 3904.5 to read as follows:

3904.5 Explosion hazards. Where an explosion condition exists, heating equipment such as vacuum ovens, heating mantels, heat guns, or other equipment shall not be used to heat flammable or combustible liquids or oils containing LPG.

SECTION 3905 SAFETY SYSTEMS

Calhan Fire Department Fire Code Amendments

Section 3905.1 Gas detection. Amend Section 3905.1 to read as follows:

3905.1 Gas detection. For extraction processes utilizing flammable gases as solvents, a continuous gas detection system complying with Section 916 shall be provided. **The gas detection design shall be in compliance with Section 5001.3.3.19.**

Section 3905.1.2 Gas detection components. Add a new Section 3905.1.2 to read as follows:

3905.1.2 Gas detection system components. Gas detection system control units shall be listed and labeled in accordance with UL 864 or UL 2017 for use with the vapors being detected.

Section 3905.1.3 Failure of the gas detection system. Add a new Section 3905.1.3 to read as follows:

3905.1.3 Failure of the gas detection system. Failure of the gas detection system shall result in the deactivation of the heating system; activation of the mechanical ventilation system where the system is interlocked with the gas detection system.

Section 3905.1.4 Interlocks. Add a new Section 3905.1.4 to read as follows:

3905.1.4 Interlocks. Electrical components within the extraction room shall be interlocked with the gas detection system. Activation of the gas detection system shall disable all light switches and electrical outlets.

Section 3905.3 LPG use. Add a new Section 3905.3 to read as follows:

3905.3 LPG use. Extraction equipment utilizing LPG shall comply with Chapter 61 and NFPA 58

SECTION 3906 EXHAUST. ADD A NEW SECTION 3906 TO READ AS FOLLOWS:

SECTION 3906 EXHAUST

Section 3906.1 Exhaust system. Add a new Section 3906.1 to read as follows:

3906.1 Exhaust system. A hazardous exhaust system complying with this code and the International Mechanical Code shall be provided for flammable and/or combustible material extraction processes.

Exceptions:

1. Unheated distillation process with less than 1/2 gallon of flammable and/or combustible materials performed under a listed and labeled chemical fume hood installation complying with this code.
2. Solvent distillation units in compliance with Section 5705.4.

SECTION 3907 CO2 EXTRACTIONS. ADD A NEW SECTION 3907 TO READ AS FOLLOWS:

SECTION 3907 CO2 EXTRACTIONS

Section 3907.1 Carbon dioxide solvent. Add a new Section 3901.1 to read as follows:

3907.1 Carbon dioxide solvent. Extraction facilities using carbon dioxide as a solvent shall comply with 5307.

Section 3907.2 Calibration. Add a new Section 3907.2 to read as follows:

3907.2 Calibration. Auto calibrating and self-zeroing devices or detectors shall be prohibited.

CHAPTER 40 - STORAGE OF DISTILLED SPIRITS AND WINES

SECTION 4003 PRECAUTIONS AGAINST FIRE

Section 4003.3.4 Electrical. Amend Section 4003.4 to read as follows:

4003.3.4 Electrical. Electrical wiring and equipment shall be installed and maintained in accordance with **Section 603**, Section 608, and NFPA 70.

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Section 4003.4 Lightning. Amend Section 4003.4 to read as follows:

4003.4 Lightning. Structures containing barrel storage, ~~should~~ **shall** be protected from lightning. The lightning protection equipment shall be installed in accordance with NFPA 70 and NFPA 780.

Section 4003.5 Standby or emergency power. Add a new Section 4003.5 to read as follows:

4003.5 Standby or emergency power. Where mechanical ventilation, treatment systems, limit controls, alarm, detection, or other electrically operated systems are required, such systems shall be provided with an emergency or standby power system in accordance with NFPA 70 and Section 604.1, as amended.

Exception: Standby power for mechanical ventilation and limit control systems shall not be required where an approved fail-safe engineered system is installed.

Section 4003.6 Security. Add a new Section 4003.6 to read as follows:

4003.6 Security. The manufacture, production, and storage of distilled spirits and wines shall be safeguarded from unauthorized access in an approved manner.

SECTION 4004 STORAGE

Section 4004.1.1 Storage plan. Add a new Section 4004.1.1 to read as follows:

4004.1.1 Storage plan. Aisle and storage plans shall be submitted in accordance with Chapter 50.

Section 4004.1.2 Emergency planning. Add a new Section 4004.1.2 to read as follows:

4004.1.2 Emergency planning. Fire safety and evacuation plans in accordance with Section 404, shall be prepared, and maintained.

SECTION 4006 SIGNAGE

Section 4006.1 Hazard identification signs. Amend Section 4006.1 to read as follows:

4006.1 Hazard identification signs. Unless otherwise exempted by the fire code official, visible hazard identification signs, as specified in **Section 5003.5 through 5003.6.2** and NFPA 704 for the specific material contained, shall be placed on stationary containers and above-ground tanks; at entrances to locations where hazardous materials are stored, dispensed, used, or handled in quantities requiring a permit; and at specific entrances and locations designated by the fire code official.

Exception: Casks are not required to be labeled.

Section 4006.1.1 Maintenance and style. Amend Section 4006.1.1 to read as follows:

4006.1.1 Maintenance and style. Signs and markings required by Section 4006.1 shall not be obscured or removed; shall be in English as a primary language or in symbols permitted by this code; shall be durable; and the size, color, and lettering shall be ~~approved~~ **as specified in Section 5003.6 through 5003.6.1.**

Part V – Hazardous Materials

CHAPTER 50 HAZARDOUS MATERIALS

SECTION 5001 GENERAL

Calhan Fire Department Fire Code Amendments

Section 5001.2.2 Hazard categories. Amend Section 5001.2.2 to read as follows:

5001.2.2 Hazard Categories. Hazardous materials shall be classified according to hazard categories. The categories include materials regulated by this chapter and materials regulated elsewhere in this code, **including Appendix E for Hazard Categories.**

Section 5001.3.3.19 Detection of a gas or vapor. Add a new Section 5001.3.3.19 to read as follows:

5001.3.3.19 Detection of a gas or vapor. Detection and alarm are required where a release of a hazardous material gas or vapor could cause immediate harm to any person by exceeding the permissible exposure level (PEL) of the gas, by decreasing the oxygen level to below 19.5 percent, or by exceeding 25 percent of the lower flammable limit (LFL) of a flammable gas. A detection and alarm system may initiate a means of mitigation of the dangerous effects of a release as well as notification to occupants.

SECTION 5003 GENERAL REQUIREMENTS

Section 5003.5 Hazard identification signs. Amend Section 5003.5 to read as follows:

5003.5 Hazard identification signs. Unless otherwise exempted by the fire code official, visible hazard identification signs as specified in NFPA 704 for the specific material contained shall be placed on stationary containers and above-ground tanks and at entrances to locations where hazardous materials are stored, dispensed, used, or handled in quantities requiring a permit and at specific entrances and **locations per section 5003.6.2 or designated by the fire code official.**

Section 5003.5.1 Markings. Amend Section 5003.5.1 to read as follows:

5003.5.1 Markings. Individual containers, cartons, or packages shall be conspicuously marked or labeled in an approved manner. Rooms or cabinets containing ~~compressed gases~~ **hazardous materials** shall be conspicuously labeled, for **example**: “COMPRESSED GAS”

Section 5003.6.1 Size. Add a new section 5003.6.1 to read as follows:

5003.6.1 Size. Exterior of the structure the NFPA 704 signs shall be a minimum of 10 IN X 10 IN with each individual block being a minimum of 5 IN X 5IN. The hazard ranking numbers shall be a minimum of 4 IN in height and 2.5 IN in width, with a 5/8 stroke. Interior door leading to rooms storing hazardous materials the NFPA 704 signs shall be a minimum of 7-1/2 IN X 7-1/2 IN with each individual block being a minimum of 3-1/4 IN X 3-1/4 IN. The hazard ranking numbers shall be a minimum of 3 IN in height and 2 IN in width, with a 13/32 stroke. NFPA 704 labels on containers, cartons, cabinets, cylinders, and packages shall be a minimum of 5 IN X 5 IN with each individual block being a minimum of 2-1/2 IN X 2-1/2 IN. The hazard ranking numbers shall be a minimum of 2 IN in Height and 1.5 IN in width, with a 5/16 stroke. All letters and numbers on the NFPA 704 shall be black in color.

Section 5003.6.2 Location of signs. Add a new Section 5003.6.2 to read as follows:

5003.6.2 Location of signs. Signs shall be in locations approved by the fire code official and as a minimum shall be posted at the following locations:

1. Two exterior walls, doors, or enclosures containing a means of access to a building or facility.
2. Each access to a room or area that contains hazardous materials.
3. Each principal means of access to an exterior storage area that contains hazardous materials.

SECTION 5004 STORAGE

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Section 5004.1 Scope. Amend 5004.1 to read as follows:

5004.1 Scope. Storage of hazardous materials in amounts exceeding the maximum allowable quantity per control area as set forth Section 5003.1 shall be in accordance with Sections 5001, 5003, ~~and 5004, and 5005.~~ Storage of hazardous materials in amounts not exceeding the maximum allowable quantity per control area as set forth in Section 5003.1 shall be in accordance with Section 5001, ~~and 5003, and 5004.2.~~ Retail and wholesale storage and display of nonflammable solid and nonflammable and noncombustible liquid hazardous materials in Group M occupancies and Group S storage shall be in accordance with Section 5003.11.

Section 5004.2 Spill control and secondary containment for liquid and solid hazardous materials. Amend Section 5004.2 to read as follows:

5004.2 Spill control and secondary containment for liquid and solid hazardous materials. ~~Regardless of the MAQ, Rooms~~ rooms, buildings or area for the storage of liquid or solid hazardous materials shall be provided with spill control and secondary containment in accordance with Section 5004.2.1 through 5004.2.3.

Exception: Outdoor storage of containers on approved containment pallets in accordance with Section 5004.2.3.

Section 5004.2.1 Spill control for hazardous material liquids. Amend Section 5004.2.1 to read as follows:

5004.2.1 Spill control for hazardous material liquids. Rooms, buildings or areas used for storage of hazardous materials liquids in individual vessels having a capacity of more than 55 gallons, or in which the aggregate capacity of multiple vessels exceeds ~~1000~~ 120 gallons, shall be provided with spill control to prevent the flow of liquids to adjoining areas. Floors in indoor locations and similar surfaces in outdoor locations shall be constructed to contain a spill from the largest single vessel by one of the following methods:

1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
2. Liquid-tight floors in indoor locations or similar areas in outdoor locations provided with liquid-tight raised or recessed sills or dikes.
3. Sumps and collection systems.
4. Other approved engineered systems.

Except for surfacing, the floors, sills, dikes, sumps and collection systems shall be constructed of noncombustible material, and the liquid-tight seal shall be compatible with the material stored. When liquid-tight sills or dikes are provided, they are not required at perimeter openings having an open-grate trench across the opening that connects to an approved collection system.

Section 5004.2.2 Secondary containment for hazardous material liquids and solids. Amend Section 5004.2.2 to read as follows:

5004.2.2 Secondary containment for hazardous material liquids and solids. Where required by Table 2704.2.2 buildings, rooms or areas used for the storage of hazardous materials liquids or solids shall be provided with secondary containment in accordance with this section when the capacity of an individual vessel or the aggregate capacity of multiple vessels exceeds the following:

1. Liquids: Capacity of an individual vessel exceeds 55 gallons (114 L) or the aggregate capacity of multiple vessels exceeds ~~1000~~ 120 gallons (~~3785 L~~) (454 L); and
2. Solids: Capacity of an individual vessel exceeds 550 pounds (136.1 kg) or the aggregate capacity of multiple vessels exceeds ~~10,000~~ 1,000 pounds (~~4540 kg~~) (249.5 kg).

CHAPTER 51 AEROSOLS

CHAPTER 52 RESERVED

CHAPTER 53 COMPRESSED GASSES

SECTION 5306 MEDICAL GASES

Section 5306.5 Medical gas systems and equipment. Amend Section 5306.5 to read as follows:

5306.5 Medical gas systems and equipment. Medical gas systems and equipment shall be installed, tested and labeled in accordance with NFPA 99 and the general provisions of this chapter. Existing medical gas systems and equipment shall be used and maintained in accordance with the use, maintenance, inspection and testing provisions of NFPA 99 for medical gas systems and equipment. **Veterinary clinics shall comply with NFPA 99, Chapter 15 Dental Gas and Vacuum Systems.**

SECTION 5307 COMPRESSED GASES NOT OTHERWISE REGULATED

Section 5307.3.2 Gas detection system. Amend Section 5307.3.3 to read as follows:

5307.3.2 Gas detection system. Where ventilation is not provided in accordance with Section 5307.3.1, a gas detection system shall be provided in rooms or indoor areas and in below-grade outdoor locations with insulated carbon dioxide systems. Carbon dioxide sensors shall be provided within 12 inches (305 mm) of the floor in the area where the gas is expected to accumulate or other approved locations. The system shall be designed as follows:

1. Activates an audible and visible supervisory alarm at a normally attended location upon detection of a carbon dioxide concentration of 5,000 ppm (9000 mg/m³).
2. Activates an audible and visible alarm within the room or the immediate area where the system is installed upon detection of a carbon dioxide concentration of 30,000ppm (54 000 mg/m³).
3. **Activates a fail-safe feature that shuts off flow from the supply tank upon reaching 5,000 ppm (9000 mg/m³) and/or loss of power.**

Section 5307.3.2.1 Point of use detection. Add a new Section 5307.3.2.1 to read as follows:

5307.3.2.1 Point of use detection. An approved gas detector is required to be installed at each point of use where the use location is remote from the supply.

Section 5307.3.3 Piping. Add a new Section 5307.3.3 to read as follows:

5307.3.3 Piping. Piping for all carbon dioxide and inert gas systems shall be located and supported to protect against damage from strain on piping and fittings, the effects of expansion, contraction, and vibration, mechanical damage, and heat sources.

Section 5307.3.3.1 Piping requirements. Add a new Section 5703.3.3.1 to read as follows:

5307.3.3.1 Piping requirements. Piping, tubing, and hoses and fittings shall be designed to a bursting pressure of at least four times the system design pressure.

Section 5307.3.3.2 Pipe labeling. Add a new Section 5703.3.3.2 to read as follows:

5307.3.3.2 Pipe labeling. All piping associated with carbon dioxide and inert gas systems shall be labeled in accordance with ASME A13.1 to indicate the material conveyed and the direction of flow.

Section 5307.3.3.3 Couplings. Add a new Section 5703.3.3.3 to read as follows:

5307.3.3.3 Couplings. Where carbon dioxide (CO²) and inert gas piping is run through areas not protected with gas detection and ventilation as required by this code, there shall be no couplings, unions, or other joints that may pose a threat due to failure, as determined by the fire code official.

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Section 5307.3.4 Signage. Add a new Section 5703.3.4 to read as follows:

5307.3.4 Signage. Hazard identification signs shall be posted at the entrance to the room and indoor areas where the inert gas enrichment process is located, and at the entrance to the room or indoor area where the inert gas containers are located. The sign shall be not less than 8 inches (200 mm) in width and 6 inches (150 mm) in height and indicate:

CAUTION –INERT GAS
IF ALARM IS SOUNDING
VENTILATE THE AREA BEFORE ENTERING
A HIGH INERT GAS CONCENTRATION
IN THIS AREA
CAN CAUSE ASPHYXIATION

SECTION 5308 CARBON DIOXIDE (CO²) GAS ENRICHMENT SYSTEMS USING A NATURAL GAS BURNER IN PLANT GROWING (HUSBANDRY) APPLICATIONS. ADD A NEW SECTION 5308 TO READ AS FOLLOWS:

SECTION 5308 CARBON DIOXIDE (CO²) GAS ENRICHMENT SYSTEMS USING A NATURAL GAS BURNER IN PLANT GROWING (HUSBANDRY) APPLICATIONS

Section 5308.1 General. Add a new Section 5308.1 to read as follows:

5308.1 General. Natural gas burners that are utilized to generate carbon dioxide (CO²) in plant growing (husbandry) applications shall comply with Sections 5308.2 through 5308.6. A mechanical exhaust system shall be provided as required by 5308.6 and the International Mechanical Code. This code section shall apply to all applications in new and existing buildings.

Section 5308.2 Permits. Add a new Section 5308.2 to read as follows:

5308.2 Permits. Permits shall be required in accordance with Sections 105.6 and 105.7.

Section 5308.3 Equipment. Add a new Section 5308.3 to read as follows:

5308.3 Equipment. Natural gas burners shall be listed, labeled, and installed in accordance with the manufacturer's installation instructions. Piping systems, combustion and ventilation air, and venting for natural gas appliances shall be designed and installed in accordance with approved standards, the International Fuel Gas Code, and manufacturer's recommendations.

Section 5308.4 Required protection. Add a new Section 5308.4 to read as follows:

5389.4 Required protection. A carbon dioxide (CO²) gas detection system shall be provided in accordance with Section 5308.4.1 and a carbon monoxide (CO) gas detection system shall be provided in accordance with Section 5308.4.2.

Section 5308.4.1 Carbon dioxide (CO²) detection. Add a new Section 5308.4.1 to read as follows:

5308.4.1 Carbon dioxide (CO²) detection. Rooms or areas where carbon dioxide is used indoors or in enclosed outdoor locations shall be provided with a carbon dioxide gas detection and alarm system.

Section 5308.4.1.1 Detectors. Add a new Section 5308.4.1.1 to read as follows:

5308.4.1.1. Detectors. Detectors shall comply with all of the following:

1. Suitable for the use intended and shall be listed or approved.
2. Permanently mounted.
3. Installed at a height of no more than 18 inches above the floor.

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4. Directly connected to building electrical or fire alarm systems and protected from accidental disconnection or damage.
5. Auto calibrating and self “zeroing” devices are not permitted unless they can be zeroed and spanned.
6. Where the point of use is remote from the supply a detection and alarm system is required for each point of use.

Section 5308.4.1.2 Notification. Add a new Section 5308.4.1.2 to read as follows:

5308.4.1.2 Notification. The detection system shall be capable of notifying personnel in the immediate area of a leak at 5,000 parts per million. Upon reaching 30,000 parts per million this system must notify all building occupants of a mandatory evacuation.

Exception: Systems with a fail-safe feature that shuts off carbon dioxide flow from the source upon reaching 5,000 parts per million or loss of power are not required to notify building occupants at 30,000 parts per million.

Section 5308.4.1.3 Signage. Add a new Section 5308.4.1.3 to read as follows:

5308.4.1.3 Signage. Shall be in compliance with Section 5307.

Section 5308.4.1.4 Shut down. Add a new Section 5308.4.1.4 to read as follows:

5308.4.1.4 Shut down. All carbon dioxide (CO²) burner systems shall shut down in the event of a loss of electrical power to the carbon dioxide (CO²) detectors.

Section 5308.4.2 Carbon monoxide (CO) detection. Add a new Section 5308.4.2 to read as follows:

5308.4.2 Carbon monoxide (CO) detection. Rooms or areas where carbon dioxide burners are used indoors or in enclosed outdoor locations shall be provided with a carbon monoxide gas detection and alarm system.

Section 5308.4.2.1 Detectors. Add a new Section 5308.4.2.1 to read as follows:

5308.4.2.1 Detectors. Detectors shall comply with all of the following:

1. Shall be listed or approved for the intended use.
2. Permanently mounted.
3. Installed per manufacturer’s recommendations and directions.
4. Directly connected to building electrical and protected from accidental disconnection or damage.

Section 5308.4.2.2 Notification. Add a new Section 5308.4.2.2 to read as follows:

5309.4.2.2 Notification. The CO detection system shall be capable of notifying personnel in the immediate area of a leak at 35 ppm and upon activation shall initiate the following:

1. Close the valve to each burner.
2. Activate the mechanical exhaust system.

Section 5308.4.2.3 Shut down. Add a new Section 5308.4.2.3 to read as follows:

5308.4.2.3 Shut down. All carbon dioxide (CO²) burner systems shall shut down in the event of a loss of electrical power to the carbon monoxide (CO) detectors.

Section 5309.5 Detector testing. Add a new Section 5309.5 to read as follows:

5309.5 Detector testing. The equipment, systems and devices listed in 5308.4 shall be tested annually and in accordance with the approved manufacturer’s requirements.

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Section 5308.6 Ventilation. Add a new Section 5308.6 to read as follows:

5308.6 Ventilation. Mechanical ventilation shall be installed in addition to a detection and alarm system as required in Section 5308.4. All gas systems shall have ventilation installed as required by Sections 5001.3.3.10, 5004.3 through 5004.3.1, and the International Mechanical Code. Construction plan data and/or a technical report by a registered design professional shall be submitted to the fire code official demonstrating compliance with the requirements. Approved plans/permits for ventilation from the governing mechanical authority shall be prima facie evidence for compliance.

Exception: No ventilation is required for those systems equipped with a gas detection fail-safe feature, as described in the exception for 5308.4.1.2.

CHAPTER-54 CORROSIVE MATERIALS

CHAPTER-55 CRYOGENIC FLUIDS

CHAPTER-56 EXPLOSIVES AND FIREWORKS

SECTION 5601 GENERAL

Section 5601.1.3 Fireworks. Amend Section 5601.1.3 to read as follows:

5601.1.3 Fireworks. The possession of permissible fireworks as defined by 12-28-101 C.R.S. and as permitted by Article 28 of Title 12 C.R.S. shall be permitted by individuals over the age of sixteen years. No fire protection district shall prohibit the sale of permissible fireworks, as defined in section 32-1-1002 (1) (d). ~~The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.~~

Exceptions:

1. Storage handling of fireworks as permitted in Section 5604.
2. Manufacture, assembly and testing of fireworks as permitted in Section 5605.
3. The use of fireworks for fireworks display as permitted in Section 5608.
4. The possession, storage, sale, handling and use of specific types of Division 1.4G fireworks where permitted by applicable laws (Article 28 of Title 12 C.R.S.), ordinances and regulations, provided that such fireworks and facilities comply with the 2006 edition of NFPA 1124, CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100-185, as applicable for consumer fireworks.

SECTION 5608 FIREWORKS DISPLAY

Section 5608.1 General. Amend Section 5608.1 to read as follows:

5608.1 General. Outdoor fireworks display, use of pyrotechnics before a proximate audience, and pyrotechnic special effects in motion picture, television, theatrical, and group entertainment productions shall comply with Sections 5608.2 through 5608.10 and NFPA 1123, ~~or~~ NFPA 1126 and/or NFPA 160, as applicable.

Section 5608.2.1.1 Fire extinguishers. Add a new Section 5608.2.1.1 to read as follows:

5608.2.1.1 Fire extinguishers. The person, group, or organization sponsoring the firework display shall consult with the fire code official to determine the level of fire protection required. Four or more fire extinguishers of the classification and size as approved by the fire code official shall be readily accessible while the pyrotechnics are being loaded, prepared for firing, or fired.

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Section 5608.2.1.2 Standby personnel. Add a new Section 5608.2.1.2 to read as follows:

5608.2.1.2 Standby personnel. Standby fire department personnel and equipment may be required by the fire department prior to and during the event. The fire department shall be reimbursed by the event coordinator or responsible party for all costs associated with providing this service.

Section 5608.2.1.3. Add a new Section 5608.2.1.3 to read as follows:

5608.2.1.3 Weather conditions. Firework displays if permitted during “High” or “Very High” fire danger conditions shall require a minimum of one dedicated brush truck with sufficient staffing to operate said vehicle at the site of the display both prior to and throughout the event. The total number of equipment and staffing shall be approved by the fire code official. Firework displays are prohibited during any issued burn bans, extreme fire danger, or red flag warning conditions.

Exception: Scheduled public events held over well-irrigated landscaping and/or bodies of water as approved by the fire code official and the presence of standby equipment and personnel.

Section 5608.6.1 Mortar rack reinforcement. Add a new Section 5608.6.1 to read as follows:

5608.6.1 Mortar rack reinforcement. Aboveground mortar racks shall be constructed and secured to withstand a catastrophic malfunction in a mortar rack(s). Added sandbag reinforcement to the mortar rack(s) shall be required. Sandbags shall be used to secure mortar rack(s) and to prevent tip-over or movement. Placement of sandbags at the mortar rack(s) shall be on spectator sides of the rack(s) and on each end of a rack or group of racks at a minimum. The sandbags shall be stacked to a minimum height of three-fourths (3/4) of the rack(s) frame height.

Section 5608.8.1 Wind speed. Add new Section 5608.8.1 to read as follows:

5608.8.1 Wind speed. Firework displays shall not be fired when wind speeds measured by the fire code official are exceeding 15 mph.

CHAPTER-57 FLAMMABLE AND COMBUSTIBLE LIQUIDS

CHAPTER-58 FLAMMABLE GASES AND FLAMMABLE CRYOGENIC FLUIDS

CHAPTER-59 FLAMMABLE SOLIDS

CHAPTER-60 HIGHLY TOXIC AND TOXIC MATERIALS

CHAPTER-62 ORGANIC PEROXIDES

CHAPTER-61 LIQUEFIED PETROLEUM GASSES

SECTION 6109 STORAGE OF PORTABLE LP-GAS CONTAINERS AWAITING USE OR RESALE

Section 6109.13 Protection of containers. Amend Section 6901.3 to read as follows:

6109.13 Protection of containers. LP-gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle impact protection shall be provided as required by Section 6107.4.

~~Exception: Vehicle impact protection shall not be required for protection of LP-gas containers where the containers are kept in lockable, ventilated cabinets of metal construction as approved by the fire code official.~~

CHAPTER-63 OXIDIZERS, GASSES, AND CRYOGENIC FLUIDS

CHAPTER-64 PYROPHORIC MATERIALS

CHAPTER-65 PYROXYLIN (CELLULOSE NITRATE) PLASTICS

CHAPTER-66 UNSTABLE (REACTIVE) MATERIALS

CHAPTER-67 WATER REACTIVE SOLIDS AND LIQUIDS

Part VI – Reference Standards

CHAPTER-80 REFERENCED STANDARDS

SECTION 8001 GENERAL. ADD A SECTION 8001 TO READ AS FOLLOWS:

8001 GENERAL

SECTION 8001.1 Adoption of Standards. Add a new Section 8001.1 as follows:

Section 8001.1 Adoption of Standards. In every case where this code references NFPA standards, the most current edition, to include TIA's and errata's of said standards is hereby adopted. The current edition shall become effective on January 1 of the year following NFPA's effective date for said standard.

AMEND CHAPTER 80 ADD REFERENCES TO READ AS FOLLOWS:

ACR	American College of Radiology safety guidelines
DISCUS	Distilled Spirits Council of U.S. 1250 Eye Street, NW Suite 400, Washington D.C. 20005 Recommended Fire Protection Practices for Distilled Spirits Beverage Facilities
NFPA 418	Standard for Heliports
NFPA 497	Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas
NFPA 855	Standard for Installation of Stationary Energy Storage Systems
NFPA 1225	Standard for Emergency Services Communications
UL 2272	2016 Electrical Systems for Personal E-Mobility Devices
UL 2849	2020 Electrical Systems for eBikes
MUTCD	Manual on Uniform Traffic Control Devices for Streets and Highways

Part VII - Appendices

APPENDIX A - BOARD OF APPEALS

Appendix A is adopted with the following amendments.

SECTION A101 GENERAL

Section A101.3 Membership of board. Amend Section A101.3 to read as follows:

A101.3 Membership of board. The board shall consist of ~~five voting members appointed by the chief appointing~~ of the Fire Protection District Board of the authority ~~of the~~ having jurisdiction. ~~Each member shall serve for [NUMBER OF YEARS] years or until a successor has been appointed. The board member's terms shall be staggered at intervals, so as to provide continuity.~~ The fire code official shall be an ex officio member of said board but shall not vote on any matter before the board.

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Section A101.3.1 Qualifications. Delete Section A101.3.1 in its entirety.

~~Section A101.3.1 Qualifications. The board shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosions, hazardous conditions or fire protection systems, and are not employees of the jurisdiction.~~

Section A101.3.2 Alternate members. Delete Section A101.3.2 in its entirety.

~~A101.3.2 Alternate members. The chief appointing authority is authorized to appoint two alternate members who shall be called by the board chairperson to hear appeals during the absence or disqualification of a member. Alternate members shall possess the qualifications required for board membership, and shall be appointed for the same term or until a successor has been appointed.~~

Section A101.3.3 Vacancies. Delete Section A101.3.3 in its entirety.

~~A101.3.3 Vacancies. Vacancies shall be filled for an unexpired term in the same manner in which original appointments are required to be made.~~

Section A101.3.4 Chairperson. Delete Section A101.3.4 in its entirety.

~~A101.3.4 Chairperson. The board shall annually select one of its members to serve as chairperson.~~

Section A101.3.5 Secretary. Delete Section A101.3.5 in its entirety.

~~A101.3.5 Secretary. The chief appointing authority shall designate a qualified clerk to serve as secretary to the board. The secretary shall file a detailed record of all proceedings, which shall set forth the reasons for the board's decision, the vote of each member, the absence of a member and any failure of a member to vote.~~

Section A101.3.6 Conflict of interest. Delete Section A101.3.6 in its entirety.

~~A101.3.6 Conflict of interest. A member with any personal, professional or financial interest in a matter before the board shall declare such interest and refrain from participating in discussions, deliberations and voting on such matters.~~

Section A101.3.7 Compensation of members. Delete Section A101.3.7 in its entirety.

~~A101.3.7 Compensation of members. Compensation of members shall be determined by law.~~

Section A101.3.8 Removal from the board. Delete Section A101.3.8 in its entirety.

~~A101.3.8 Removal from the board. A member shall be removed from the board prior to the end of their terms only for cause. Any member with continued absence from regular meetings of the board may be removed at the discretion of the chief appointing authority.~~

Section A101.4 Rules and procedures. Amend Section A101.4 to read as follows:

A101.4 Rules and procedures. The board ~~shall~~ **should maintain current** established policies and procedures necessary to carry out its duties consistent with the provisions of this code and applicable state law. The procedures shall not require compliance with strict rules of evidence, but ~~shall~~ **should** mandate that only relevant information be presented. ~~The fire code official may request outside fire code officials from neighboring jurisdictions to be present to assist with interpretation of this code.~~

Section A101.5 Notice of meetings. Amend Section A101.5 to read as follows:

A101.5 Notice of meetings. The board shall meet ~~on their normal schedule of public meeting upon notice from the chairperson within 10 days of the filing of an appeal or at stated periodic intervals.~~ Notice of meetings shall be within the boards normal notices and should not differ from existing proceedings.

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Section A101.5.1 Open hearing. Delete Section A101.5.1 in its entirety.

~~A101.5.1 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the fire code official and any person whose interests are affected shall be given an opportunity to be heard.~~

Section A101.5.2 Quorum. Delete Section A101.5.2 in its entirety.

~~A101.5.2 Quorum. Three members of the board shall constitute a quorum.~~

Section A101.5.3 Postponed hearing. Delete Section A101.5.3 in its entirety.

~~A101.5.3 Postponed hearing. When five members are not present to hear an appeal, either the appellant or the appellant's representative shall have the right to request a postponement of the hearing.~~

Section A101.6 Legal counsel. Amend Section A101.6 to read as follows:

~~A101.6 Legal counsel. The jurisdiction shall furnish legal~~ should consult with their currently established counsel to the board to provide members with general legal advice concerning matters before them for consideration. ~~Members shall be represented by legal counsel at the jurisdiction's expense in all matters arising from service within the scope of their duties.~~

Section A101.7 Board decision. Amend Section A101.7 to read as follows:

~~A101.7 Board decision. The board shall only modify or reverse the decision of the fire code official by a majority vote of the board~~ concurring vote of three or more members.

Section A101.8 Court review. Amend Section A101.8 to read as follows:

~~A101.8 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. The fire district board shall operate in accordance with their established rules, regulations and procedure in accordance with Colorado Revised Statute Title 32. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.~~

APPENDIX B – FIRE FLOW REQUIREMENTS

Appendix B is adopted in its entirety.

APPENDIX C FIRE HYDRANT LOCATION & DISTRIBUTION

Appendix C is adopted with the following amendments.

SECTION C106 MARKING OF HYDRANTS. ADD A NEW SECTION C106 TO READ AS FOLLOWS:

C106 MARKING OF HYDRANTS

Section C106.1 Public hydrants. Add a new Section C106.1 to read as follows:

~~C106.1 Public hydrants. All barrels are to be chrome yellow except in cases where another color has already been adopted by the water district.~~

Section C106.2 Tops and nozzle caps. Add a new Section C106.2 to read as follows:

~~C106.2 Tops and nozzle caps. The tops and nozzle caps should be painted with the capacity-indicating color scheme shown in Table C106.2 (1) to provide simplicity and consistency with colors used in signal work for safety, danger, and intermediate condition.~~

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Table C106.2 (1). Add a new Table C106.2 to read as follows:

TABLE C106.2 (1)
CLASSIFICATION AND MARKING OF HYDRANTS

Hydrant Classification	Color Scheme	Hydrant Capacity (gpm)	Hydrant Capacity (L/min)
AA	Blue	>1500	>5700
A	Green	1000 – 1499	380 – 5699
B	Orange	500 – 999	1900 – 3799
C	Red	<500	<1900

Section C106.3 Hydrants less than 20 psi. Add a new Section C106.3 to read as follows:

C106.3 Hydrants less than 20 psi. Hydrants rated at less than 20 psi (1.4 bar) should have the rated pressure stenciled in black on the hydrant top.

Section C106.4 Permanently inoperative hydrants. Add a new Section C106.4 to read as follows:

C106.4 Permanently inoperative hydrants. Fire hydrants that are permanently inoperative or unusable should be removed.

Section C106.5 Temporarily inoperative hydrants. Add a new Section C106.5 to read as follows:

C106.5 Temporarily inoperative hydrants. Fire hydrants that are temporarily inoperative or unusable should be wrapped or otherwise provided with temporary indication of their condition.

Section C106.6 Private hydrant marking. Add a new Section C106.6 to read as follows:

C106.6 Private hydrant marking. Private hydrants barrel should be painted red to distinguish them from public hydrants. The tops and nozzle caps should be painted by the scheme shown in Table C106.2 (1).

Section C106.7 Recommended paint. Add Section C106.7 to read as follows:

C106.7 Recommended paint. Rust-Oleum, High Performance 7400 System DTM Alkyd Enamel (450) meets USDA requirements for incidental food contact; accepted for use in federally registered food facilities; <450 VOCs. High-gloss finish; one-coat coverage; dries tack free in 2-4 hours. Resists chipping, fading, and weathering. Protects against mild chemicals; ideal for moderate to slightly severe industrial environments. Two-year rust-proof guarantee by Rust-Oleum, maximum corrosion protection. Color codes are as follows:

- 1. Yellow; 944402 (safety yellow)**
- 2. Red; 964402 (safety red)**
- 3. Blue; 925402 (safety blue)**
- 4. Green; 933402 (safety green)**
- 5. Orange; 956402 (safety orange)**
- 6. Black; 634402 (high gloss black)**

APPENDIX D – FIRE APPARATUS ACCESS ROADS

Appendix D is adopted with the following amendments.

SECTION D102 REQUIRED ACCESS

Section D102.1 Access and loading. Amend Section D102.1 to read as follows:

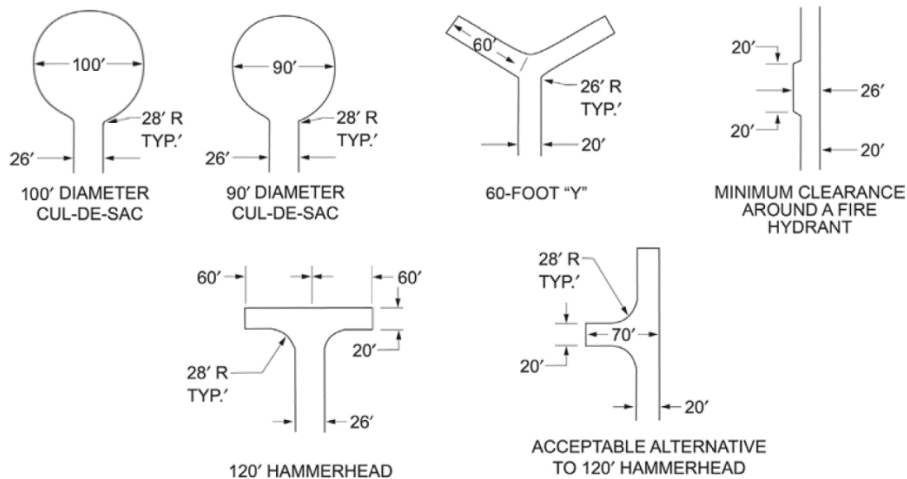
D102.1 Access and loading. Facilities, buildings, or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with asphalt, concrete,

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or other approved driving surface capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds **with a minimum single axle weight of 27,000 pounds. Alternative methods such as brick pavers, road, base, and gravel as approved by the fire code official.**

SECTION D103 MINIMUM SPECIFICATIONS

Figure D103.1 Dead-End Fire Apparatus Access Roads. Amend Figure D103.1 to depict as follows:



For SI: 1 foot = 304.8 mm

Table D103.4 Requirements for Dead-End Fire Apparatus Access Roads. Amend Table D103.4 to read as follows:

LENGTH (feet)	WIDTH (feet)	TURNAROUND REQUIRED
0-150	20	None required
151-500	20	120-foot Hammerhead, 60-foot "Y" or 96-90-foot-diameter cul-de-sac with curb and gutter , 100-foot cul-de-sac without curb and gutter , in accordance with Figure D103.1
501-750	26	120-foot Hammerhead, 60-foot "Y" or 96-90-foot-diameter cul-de-sac with curb and gutter , 100-foot cul-de-sac without curb and gutter , in accordance with Figure D103.1
Over 750		Special approval required

For SI: 1 foot = 304.8 mm.

Section D103.5 Fire apparatus road gates. Amend Section D103.5 to read as follows:

D103.5 Fire apparatus access road gates. Gates securing the fire apparatus access roads shall comply with all of the following criteria:

- Where a single gate is provided, the gate **clear opening** width shall be not less than **16 20-feet (6096 mm)** ~~or as approved as the approved as the fire code official.~~ Where a fire apparatus road consists of a divided roadway, the gate **clear opening** width shall be not less than **16 12 feet (3658 mm)** ~~or as approved as the approved as the fire code official.~~
- Gates shall be **approved by the fire code official.** ~~of the swinging or sliding horizontal swing, horizontal slide, vertical lift or vertical pivot type.~~
- Construction of gates shall be of materials that allow manual operation by one person.

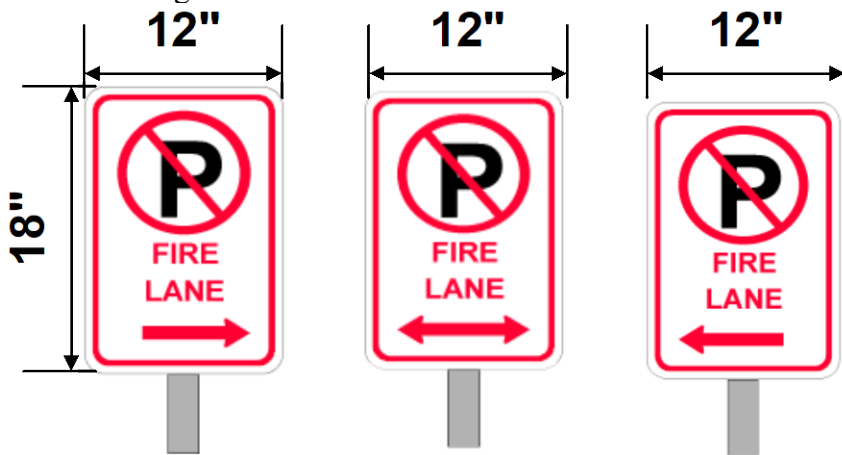
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- Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
- Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. **When outbound/egress movements do not include an automatic method of the gate opening when a vehicle is present, an approved means of opening the gate by the fire department shall be provided.** Emergency opening devices shall be approved by the fire code official.
- Methods of locking shall be submitted for approval by the fire code official.
- Electric gate operators, where provided, shall be listed in accordance with UL 325.
- Gates intended for automatic operation shall be designed, constructed, and installed to comply with the requirements of ASTM F2200.

Section D103.6 Signs. Amend Section D103.6 to read as follows:

D103.6 Signs. Where required by the fire code official, fire apparatus access roads shall be marked with permanent “NO PARKING – FIRE LANE” signs complying with Figure D103.6 or **Figure D103.6.1**. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.

Add a new Figure D103.6.1 to read as follows:



Section D103.6.3 Striping. Add a new section D103.6.3 to read as follows:

D103.6.3 Striping. The curb or edge of the fire apparatus access roads shall be marked by painted lines of red traffic paint six (6) inches in width to show the boundaries of the lane. Where a posted fire lane sign is not used by the approval of the fire code official. The words “NO PARKING FIRE LANE” shall appear in four (4) inch white reflective letters at thirty (30) feet intervals on the red border marking complying with Figure D103.6.3.1. Where a curb is available, the striping shall be on the vertical face of the curb.

Add a new Figure D103.6.3.1 to read as follows:



SECTION D104 COMMERCIAL AND INDUSTRIAL DEVELOPMENTS

Section D104.3 Remoteness. Amend Section D104.3 to read as follows:

D104.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.

Exception: The fire code official is authorized to modify this requirement when the required remoteness is not possible due to the location on property, topography, waterways, non-negotiable grades or similar.

SECTION D106 MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENTS

D106.3 Remoteness. Amend Section D106.3 to read as follows:

D106.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

Exception: The fire code official is authorized to modify this requirement when the required remoteness is not possible due to the location on property, topography, waterways, non-negotiable grades or similar.

SECTION D107 ONE- OR TWO-FAMILY RESIDENTIAL DEVELOPMENTS

Section D107.1 One- or two-family dwelling residential developments. Amend D107.1 to read as follows:

D107.1 One- or two-family dwelling residential developments. Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved fire apparatus access roads.

Exceptions:

1. Where there are more than 30 dwelling units on accessed from a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, access from two directions shall not be required.
2. The number of dwelling units on accessed from a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire code official.
3. **The fire code official is authorized to modify the requirement of two separate and approved fire apparatus access roads, when they are not possible due to location on property, topography, waterways, non-negotiable grades, or similar.**

Section D107.2. Amend Section D107.2 to read as follows:

D107.2 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

Exception: The fire code official is authorized to modify this requirement when the required remoteness is not possible due to the location on property, topography, waterways, non-negotiable grades or similar.

APPENDIX E – HAZARD CATEGORIES

Appendix E is adopted in its entirety.

APPENDIX F – HAZARD RANKING

Appendix F is adopted for informational purposes only.

APPENDIX G – CRYOGENIC FLUIDS – WEIGHT AND VOLUME EQUIVALENTS

Appendix G is adopted for informational purposes only.

APPENDIX H – HAZARDOUS MATERIALS MANAGEMENT PLAN (HMMP) AND HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS) INSTRUCTIONS

Appendix H is adopted for informational purposes and details the required information and format for submittal of a Hazardous Material Management Plan.

APPENDIX I – FIRE PROTECTION SYSTEMS – NONCOMPLIANT CONDITIONS

Appendix I is adopted for informational purposes only.

APPENDIX J – BUILDING INFORMATION SIGN

Appendix J is adopted for informational purposes only.

APPENDIX K – CONSTRUCTION REQUIREMENTS FOR EXISTING AMBULATORY CARE FACILITIES

Appendix K is adopted for informational purposes only.

APPENDIX L – REQUIREMENTS FOR FIRE FIGHTER AIR REPLENISHMENT SYSTEMS

Appendix L is adopted for informational purposes only.

APPENDIX M – HIGH-RISE BUILDINGS – RETROACTIVE AUTOMATIC SPRINKLER REQUIREMENT

Appendix M is adopted for informational purposes only.

APPENDIX N – INDOOR TRADE SHOWS AND EXHIBITIONS

Appendix N is adopted for informational purposes only.