

1 **BY AUTHORITY**

2 ORDINANCE NO.  
3 SERIES OF 2012

COUNCIL BILL NO.  
COMMITTEE OF REFERENCE:

4  
5 **A BILL**

6 **For an ordinance, amending the Building and Fire Code of the City and**  
7 **County of Denver**

8  
9 **BE IT ENACTED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:**

10 **Section 1.** Article II of Chapter 10 of the Denver Revised Municipal Code is hereby  
11 amended by deleting the language stricken below and adding the language underlined below to  
12 read and be read as follows:

13 **ARTICLE II. – BUILDING AND FIRE CODE**

14 **Sec. 10-16. – Building and fire code adopted.**

15 The International Building Code (“IBC”), International Energy Conservation Code  
16 (“IECC”), the International Fire Code (“IFC”), the International Fuel Gas Code (“IFGC”), the  
17 International Mechanical Code (“IMC”), the International Plumbing Code (“IPC”), and the  
18 International Residential Code (“IRC”), all series of 2009 as published by the International Code  
19 Council, all errata to the above codes as published by the International Code Council and the  
20 amendments ~~thereto~~ the above codes and the administration of the Denver Building Code, as  
21 filed May 24, 2011 in City Clerk File Number 11-427 are hereby adopted collectively as the  
22 Denver Building and Fire Code.

23 **Sec. 10-17. – Electrical code adopted**

24 The current National Electrical Code, as currently adopted by the State of Colorado or as  
25 is from time to time modified, re-enacted or re-adopted by the State of Colorado is hereby  
26 adopted as the electrical code of the City and County of Denver.

27 **Sec. 10-18. – Unlawful to violate codes**

28 It shall be unlawful to violate any portion of any of the above codes or any order of any  
29 building or fire official enforcing said codes.

30 **Section 2.** That sections 102.6 and 102.7 of the Denver Amendments to the 2009  
31 International Fire Code of the City and County of Denver (hereinafter “Fire Code”) are hereby  
32 amended by adding the language underlined below and deleting the language stricken below to  
33 read and be read as follows:

34 **102.67 Referenced codes and standards.** Additional details regarding processes, methods,  
35 specifications, equipment testing and maintenance, or other pertinent criteria contained in these

1 standards and codes listed in Chapter 457 of this Code shall be considered a part of this Code.  
2 Volumes 1 through 158 of the National Fire Codes are standards to this code. Additionally, all  
3 references to the “International Electrical Code, and “ICC Electrical Code,” shall be changed to  
4 “NFPA 70, National Electrical Code (NEC).”

5 **Exception:** NFPA standards identified in Chapter 47 Referenced Standards as  
6 recommendations.

7 **102.78 Subjects not regulated by this code.** Where no applicable codes, standards, or  
8 requirements are set forth in this Code or contained within other laws, codes, regulations,  
9 ordinances, or bylaws adopted by the City and County of Denver Fire Department, compliance  
10 with the applicable codes and standards of the National Fire Protection Association (NFPA) or  
11 other nationally recognized and approved standards shall be deemed as prima facie evidence of  
12 compliance with the intent of this code. Nothing herein shall derogate from the authority of the  
13 City and County of Denver Fire Department to determine compliance with codes or standards for  
14 those activities or installations within the Denver Fire Department’s jurisdiction or responsibility.

15 **Section 3.** That section 104.1, of the Fire Code is hereby amended by adding the  
16 language underlined below and deleting the language stricken below to read and be read as  
17 follows:

18 **104.1 General.** The Fire Prevention and Investigation Division is authorized to inspect land,  
19 buildings, structures, utilities, installations, equipment, devices, illegal processes, and materials  
20 for fire, explosion, and other emergency hazards and to investigate and ascertain the causes of  
21 fires, explosions, releases of hazardous materials, false alarms, any unsafe conditions that relate  
22 to the protection of the public and/or property and other emergencies. The Division shall have  
23 the authority to investigate fire protection and other life safety systems that are disabled or not  
24 functioning. The Division shall also have the authority on behalf of the Department of Safety to  
25 control the use, location, and transportation of flammable or combustible liquids or acids (in a  
26 chemical or physical state) or hazardous materials; the issuance of permits; the issuance of  
27 notices, orders, or Denver County Court summonses for the correction or immediate abatement  
28 of hazardous situations; the enforcement of this code and other laws, ordinances, rules, and  
29 regulations, which are within the perspective of this Code and standards set forth in Chapter 457.

30 **Section 4.** That sections 104.9.1 and 104.9.2 of the Fire Code are hereby amended by  
31 adding the language underlined below and deleting the language stricken below to read and be  
32 read as follows:

33 **104.9.43 Fire protection features.** Each application for an alternate fire protection feature shall  
34 be filed with the fire code official and shall be accomplished by such evidence, letters,

1 statements, test results, or other supporting information as required to justify the request. The  
2 fire code official shall keep a record of actions on such applications, and a signed copy of the  
3 Fire code official's decision shall be provided for the applicant.

4 **104.9.24 Building Code.** Whenever the alternate material or method involves matters regulated  
5 by the Fire Code and Building Code, approvals are also subject to approval of the building code  
6 official.

7 **Section 5.** That section 105.6 of the Fire Code is hereby amended by adding the  
8 language underlined below and deleting the language stricken below to read and be read as  
9 follows:

10 **105.6 Required permits.** The fire code official is authorized to issue permits for the operations  
11 set forth in Sections 105.6.1 through ~~105.6.147~~53:

12 **Section 6.** That sections 105.6.27-105.6.37 of the Fire Code are hereby renumbered  
13 and amended by adding the language underlined below and deleting the language stricken  
14 below to read and be read as follows:

15 **105.6.27 Carbon dioxide generators.** A permit is required for installation/use of a carbon  
16 dioxide generator (i.e., carbon dioxide enrichment).

17 **~~105.6.278~~ Carbon monoxide alarms and carbon monoxide detectors.** A permit is required  
18 for the installation, relocation or removal of carbon monoxide alarms and detectors required  
19 under provisions of Section 908.7.

20 **~~105.6.289~~ Carnivals and fairs.** A permit is required to conduct a carnival or fair. The event  
21 coordinator shall be responsible for obtaining a permit which can be issued for a single event or  
22 annually; vendors shall be responsible for individual permits for booths.

23 **~~105.6.293~~ Cellular/wireless signal repeater sites.** A permit is required to install and maintain  
24 cellular/wireless signal repeater sites.

25 **~~105.6.301~~ Cellulose nitrate.** A permit is required to store, handle, use, or display cellulose  
26 nitrate.

27 **~~105.6.342~~ Cellulose nitrate film.** A permit is required to store, handle, use, or display cellulose  
28 nitrate film.

29 **~~105.6.323~~ Certification – Construction fire safety officer.** Includes point-of-contact relative to  
30 permits.

31 **~~105.6.334~~ Chili roaster.** A permit is required to operate a chili roaster as follows:

32 **105.6.334.1 LPG fuel permit**

33 **~~105.6.343~~ Combustible fibers.** A permit is required for the storage and handling of  
34 combustible fibers in quantities of 100 cubic feet (2.8 m<sup>3</sup>) or more.

1 **Exception:** A permit is not required for agricultural storage.

2 **105.6.356 Combustible material storage.** A permit is required to store in any building or upon  
3 any premises 2,500 cubic feet (71 m<sup>3</sup>) or more gross volume of combustible empty packing  
4 cases, boxes, barrels or similar containers, rubber tires, rubber, cork or similar combustible  
5 material.

6 **105.6.367 Commercial rubbish.** A permit is required to operate a rubbish or recycling handling  
7 facility.

8 **105.6.378 Compressed gases (not LPG).** A permit is required for the storage, use or handling  
9 at normal temperature and pressure (NTP) of compressed gases in quantities equal or greater  
10 than the amounts listed in Table 105.6.378.

11 **Exception:** Vehicles equipped for and using compressed gas as a fuel for propelling the  
12 vehicle.

13 **Section 7.** That Table 105.6.37 of the Fire Code is hereby deleted and replaced by  
14 enacting and adding a new Table 105.6.38 to read and be read as follows:

15 **TABLE 105.6.38**  
16 **PERMIT AMOUNTS FOR COMPRESSED AND LIQUIFIED GASES <sup>a</sup>**

Type of Gas	Gaseous (cubic feet at NTP)	Liquified (lbs)
Biohazard	Any Amount	Any Amount
Carcinogen	200	37
Corrosive	200	37
Flammable	200	37
Highly Toxic	Any Amount	Any Amount
Inert	6,000	1,100
Irritant	200	37
Other Health Hazard	650	120
Oxidizing (including oxygen)	504	50
Pyrophoric	Any Amount	Any Amount
Sensitizer	200	37
Simple Asphyxiant	6,000	1,100
Toxic	Any Amount	Any Amount
Unstable (Reactive)	Any Amount	Any Amount

	Not Sealed (microcurie)	Sealed (millicurie)
Radioactive	Any Amount	Any Amount

17  
18 For SI: 1 cubic foot = 0.02832m<sup>3</sup>.

19 a. see Table 105.6.41 for cryogenic fluids, and Section 105.6.83 and Chapter 38 for liquefied petroleum gases (LPG)

20 **Section 8.** That sections 105.6.38-105.6.151 of the Fire Code are hereby renumbered  
21 and amended by adding the language underlined below and deleting the language stricken  
22 below to read and be read as follows:

1 **105.6.3839 Compressed natural gas (CNG).** A permit is required to operate a compressed  
2 natural gas tank.

3 **105.6.3940 Covered mall buildings.** A permit is required for:

- 4 1. The placement of retail fixtures and displays, concession equipment, displays of highly  
5 combustible goods and similar items in the mall.
- 6 2. The display of liquid- or gas-fired equipment in the mall.
- 7 3. The use of open-flame or flame-producing equipment in the mall.

8 **105.6.4041 Cryogenic fluids.** A permit is required to produce, store, transport on site, use,  
9 handle or dispense cryogenic fluids in quantities equal to or greater than the amounts listed in  
10 Table 105.6.4041.

11 **TABLE 105.6.4041**  
12 **PERMIT AMOUNTS FOR CRYOGENIC FLUIDS**

Type of Cryogenic Fluid	Inside Building (gallons)	Outside Building (gallons)
Flammable	More than 1	60
Inert	60	500
Oxidizing (includes oxygen)	10	50
Physical or health hazard not indicated above	Any Amount	Any Amount

13  
14 **105.6.4142 Demolition by explosives.** A permit is required for the use of any explosive device  
15 for demolition operations.

16 **105.6.4243 Dry cleaning plants.** A permit is required to engage in the business of dry cleaning  
17 or to change to a more hazardous cleaning solvent used in existing dry cleaning equipment.

18 **105.6.4344 Dust-producing operations.** A permit is required for all dust-producing operations.  
19 This permit does not include woodworking.

20 **105.6.4445 Emergency responder radio enhancement coverage system (RES).** A permit is  
21 required for the five-year testing of the system as required in Section 510.1.1.3 Item 3b.

- 1       **105.6.4445.1 RES repair and maintenance.** A permit is required for repair and  
2 maintenance of the emergency responder radio enhancement coverage system (RES).
- 3       **105.6.4546 Equipment testing.** A permit is required to test equipment as follows:
- 4       **105.6.4546.1 Fire alarm systems.** Smoke detector, horn/strobe, etc. Annual permit does not  
5 include overtime costs.
- 6       **105.6.4546.2 Fire protection systems.** Sprinkler head, flow switch, etc. Annual permit  
7 does not include overtime costs.
- 8       **105.6.4546.3 Smoke management systems.** Annual permit does not include overtime  
9 costs.
- 10       **105.6.4546.4 Standpipe systems.** Annual permit does not include overtime costs.
- 11       **105.6.467 Exhibits and trade shows.** A permit is required to operate exhibits and trade shows.
- 12       **105.6.478 Explosives/blasting agents.** A permit is required for the manufacture, storage,  
13 handling, sale or use of any quantity of explosives, explosive materials, fireworks or  
14 pyrotechnic special effects within the scope of Chapter 33.
- 15       **Exception:** Storage in Group R-3 occupancies of smokeless propellant, black powder and  
16 small arms primers for personal use, not for resale and in accordance with Section 3306.
- 17       **105.6.489 Failure to obtain a permit.** A temporary permit is required when a required permit  
18 has not been obtained. The fee for this temporary permit shall be double the cost of the  
19 required permit.
- 20       **105.6.4950 File search.** A fee is required for the following file searches:
- 21       **105.6.4950.1 Fire Prevention/Hazardous materials**
- 22       **105.6.4950.2 Amendment packet**
- 23       **105.6.4950.3 Fire investigation records including videotapes**
- 24       **105.6.4950.4 Property records**
- 25       **105.6.4950.5 Inspection and permit records**
- 26       **105.6.501 Fire alarm signal delay equipment.** A permit is required to install and maintain fire  
27 alarm signal delay equipment integrated with the FACP.

1 **105.6.542 Fire department fire alarm radio transmitter (wireless Denver Fire Department**  
2 **radio box).** A permit is required to install and maintain fire department fire alarm radio  
3 equipment for monitoring fire and burglar alarms.

4 **105.6.523 Fire hydrants and valves.** A permit is required to maintain a private fire hydrant  
5 system. This applies to existing systems only. New private fire hydrant systems are  
6 prohibited.

7 **105.6.534 Fire protection system maintenance.** A permit is required to perform maintenance  
8 on a private fire hydrant system.

9 **105.6.5455 Fire pumps and related equipment.** A permit is required to inspect and test fire  
10 pumps and related equipment.

11 **105.6.556 Fire watch.** A permit is required whenever a fire watch is mandated.

12 **105.6.567 Fireworks /pyrotechnics.** A permit is required for all professional pyrotechnic  
13 programs.

14 **105.6.578 Flammable or combustible liquids.** A permit is required:

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

19 2. To store, handle or use Class I liquids of 30 gallons (114 L) or more in a building or of 60  
20 gallons (228.6 L) or more outside of a building, except that a permit is not required for the  
21 following:

22 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft,  
23 motorboat, mobile power plant or mobile heating plant, unless such storage, in the  
24 opinion of the code official, would cause an unsafe condition.

25 2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures when such  
26 liquids are stored for maintenance, painting or similar purposes for a period of not  
27 more than 30 days.

28 3. To store, handle or use Class II or IIIA liquids of 60 gallons (228.6 L) or more in a building  
29 or of 120 gallons (457.1 L) or more outside a building, except for fuel oil used in connection  
30 with oil-burning equipment.

- 1           3.1 To store, handle or use Class IIIB liquids of 1,000 gallons or more in a building or  
2           outside a building.
- 3           4. To remove Class I or Class II liquids from an underground storage tank used for fueling  
4           motor vehicles by any means other than the approved, stationary on-site pumps normally  
5           used for dispensing purposes.
- 6           5. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing  
7           stations, refineries, distilleries and similar facilities where flammable and combustible liquids  
8           are produced, processed, transported, stored, dispensed or used.
- 9           6. To place temporarily out of service (for more than 90 days) an underground, protected  
10          above-ground or above-ground flammable or combustible liquid tank.
- 11          7. To change the type of contents stored in a flammable or combustible liquid tank to a  
12          material which poses a greater hazard than that for which the tank was designed and  
13          constructed.
- 14          8. To manufacture, process, blend or refine flammable or combustible liquids.
- 15          9. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at  
16          commercial, industrial, governmental or manufacturing establishments.
- 17          10. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of  
18          motor vehicles at commercial, industrial, governmental or manufacturing establishments.
- 19          11. A site plan shall be submitted showing the following: distances from all buildings, property  
20          lines, utility poles, power lines, railroad tracks, etc. A Hazardous Materials Inventory  
21          Statement (HMIS) may be required upon request.

22   **105.6.589 Floor cleaning.** A permit is required for floor cleaning operations using IIIA  
23   combustible liquids.

24   **105.6.589.1 Single address/ one time**

25   **105.6.589.2 Annual/same building**

26   **105.6.589.3 Annual/multiple sites**

27   **105.6.5960 Floor finishing.** A permit is required for floor finishing or surfacing operations of  
28   350 square feet (33 m<sup>2</sup>) or more using Class I or Class II liquids.

29   **105.6.601 Fruit and crop ripening.** A permit is required to operate a fruit- or crop-ripening  
30   facility or conduct a fruit-ripening process using ethylene gas.

1 **105.6.642 Fumigation/thermal insecticidal fogging.** A permit is required to operate a  
2 business of fumigation or thermal insecticidal fogging and to maintain a room, vault or  
3 chamber in which a toxic or flammable fumigant is used.

4 **105.6.623 Generator Set.** A permit is required to maintain and operate a generator set with or  
5 without an integral tank.

6 **105.6.623.1 Fuel Oil**

7 **105.6.623.2 Natural Gas**

8 **105.6.6364 Halogenated agent systems/extinguishers.** A permit is required to install and  
9 maintain a halogenated extinguishing agent system or portable fire extinguishers.

10 **105.6.6465 Halogenated hydrocarbons.** A permit is required for the storage or use of  
11 halogenated hydrocarbons.

12 **105.6.65 66 Hazardous materials.** A permit is required to store, transport on site, dispense,  
13 use or handle hazardous materials in quantities equal or greater than the amounts listed in  
14 Table 105.6.656.

15 **TABLE 105.6.656**  
16 **PERMIT AMOUNTS FOR HAZARDOUS MATERIALS**

TYPE OF MATERIAL	AMOUNT
Carcinogens	
Liquids	1 gallon
Solids	10 pounds
Combustible liquids	See Section 105.6.578
Corrosive materials	
Gases	See Section 105.6.378
Liquids	55 gallons
Solids	550 pounds
Explosive materials	Any Amount
Flammable materials	
Gases	See Section 105.6.378
Liquids	See Section 105.6.578
Solids	100 pounds
Cryogenics	See Section 105.6.401
Highly toxic materials	

TYPE OF MATERIAL	AMOUNT
Gases Liquids Solids	See Section 105.6.378 Any Amount Any Amount
Irritants Liquids Solids	55 gallons 550 pounds
Other Health Hazards Liquids Solids	55 gallons 550 pounds
Oxidizing materials Gases Liquids Class 4 Class 3 Class 2 Class 1 Solids Class 4 Class 3 Class 2 Class 1 Cryogenics	See Section 105.6.378 Any Amount 10 pounds <sup>a</sup> 100 pounds 550 pounds Any Amount 10 pounds <sup>a</sup> 100 pounds 550 pounds See Section 105.6.401
Organic peroxides Liquids Class I Class II Class III Class IV Class V Solids Class I Class II Class III	Any Amount Any Amount 10 pounds 20 pounds No Permit Required Any Amount Any Amount 10 pounds

TYPE OF MATERIAL	AMOUNT
Class 1V Class V	20 pounds No Permit Required
Pyrophoric materials Gases Liquids Solids	See Section 105.6.378 Any Amount Any Amount
Radioactive materials Not sealed Sealed	1 microcurie 1 millicurie
Sensitizers Liquids Solids	55 gallons 550 pounds
Toxic materials Gases Liquids Solids	See Section 105.6.378 Any Amount Any Amount
Unstable (reactive) materials Liquids Class 4 Class 3 Class 2 Class 1 Solids Class 4 Class 3 Class 2 Class 1	Any Amount Any Amount 10 pounds 100 pounds Any Amount Any Amount 10 pounds 100 pounds
Water-reactive materials Liquids Class 3 Class 2 Class 1 Solids	Any Amount 50 pounds 100 pounds

TYPE OF MATERIAL	AMOUNT
Class 3	Any Amount
Class 2	50 pounds
Class 1	100 pounds
Biohazard	Any Amount

For SI: 1 gallon=3.785L, 1 pound=0.454 kg.

a. 200 pounds when Table 2703.1.1(1) Note k applies and hazard identification signs in accordance with Section 2703.5 are provided for quantities of 200 pounds or less.

**105.6.667 Hazardous materials inventory statement plan review.** A permit is required for review and comment of any HMIS.

**105.6.667.1 HMIS – with less than 10 entries.**

**105.6.667.2 HMIS – with 10 or more entries.**

**105.6.678 Hazardous production materials.** A permit is required to store, handle or use hazardous production materials.

**105.6.689 Hazardous waste generator.** A permit is required for any operation that generates hazardous waste.

**105.6.689.1 Contingency plan review.** A review of contingency plans is required for any operation that generates any amount of hazardous waste.

**105.6.6970 Heliports and helistops.** A permit is required for the operation of any heliport or helistop.

**105.6.701 High-piled storage.** A permit is required to use a building or portion thereof as a high-piled storage area of 500 square feet (46 m<sup>2</sup>) or more.

**105.6.742 Holiday decorations in public assembly occupancies.** A permit is required to use any holiday decorations – natural vegetation, crepe paper, etc. in any public assembly occupancy.

**105.6.723 Hot work operations.** A 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 a structure.
3. Fixed-site hot work equipment such as welding booths.
4. Hot work conducted within a hazardous fire area.

- 1        5. Application of roof coverings with the use of an open-flame device.
- 2        6. Cutting and welding
- 3        **105.6.734 Hypergolic materials.** A permit is required to store or use any amount of hypergolic
- 4        materials.
- 5        **105.6.7475 Industrial trucks.** A permit is required for all industrial trucks in accordance with
- 6        NFPA 505.
- 7        **105.6.756 Insecticides/pesticides/fumigants.** A permit is required to apply, sell and
- 8        manufacture insecticides, pesticides or fumigants.
- 9        **105.6.756.1 One location/one time**
- 10       **105.6.756.2 Annual/multiple locations**
- 11       **105.6.767 Interim permit.** An interim permit may be issued allowing work under restrictions or
- 12       conditions while awaiting submittal of installation documents.
- 13       **105.6.778 Interior fire alarm system maintenance.** A permit is required to maintain fire alarm
- 14       equipment.
- 15       **105.6.789 Laboratories.** A permit is required to operate a laboratory that stores or uses
- 16       hazardous materials or flammable substances.
- 17       **105.6.7980 Limited fueling and other fuel transport operations.** A permit is required for each
- 18       vehicle approved for limited fueling and fuel transport operations.
- 19       **105.6.801 Liquefied chlorine.** A permit is required to store, use, sell and transport liquefied
- 20       chlorine.
- 21       **105.6.842 Liquefied- or gas-fueled vehicles or equipment in assembly buildings.** A permit
- 22       is required to display, operate or demonstrate liquid- or gas-fueled vehicles or equipment in
- 23       assembly buildings.
- 24       **105.6.823 LPG.** A permit is required for:
- 25       **105.6.823.31 Operate/maintain any container or system**
- 26       **105.6.823.42 Limited operations/construction sites**
- 27       **105.6.823.53 Roofing operations**
- 28       **105.6.823.64 Operation of cargo tankers that transport LP gas.**

- 1 **105.6.8384 Lubricating oils.** A permit is required to transport, store, sell or use 100 gallons or  
2 more of lubricating oils.
- 3 **105.6.8485 Lumber yards.** A permit is required for the storage or processing of lumber of  
4 100,000 board feet (8,333 ft<sup>3</sup>) (236 m<sup>3</sup>) or more.
- 5 **105.6.856 Magnesium.** A permit is required to melt, cast, heat treat or grind 10 pounds (4.54  
6 kg) or more of magnesium.
- 7 **105.6.867 Matches.** A permit is required for bulk storage of matches.
- 8 **105.6.878 Medical gas systems.** A permit is required for each medical gas system.
- 9 **105.6.889 Motor fuel dispensing facilities.** A permit is required for operation of automotive  
10 and, marine motor fuel-dispensing facilities. Fuel is calculated and assessed separately.
- 11 **105.6.889.1 Flammable and combustible liquids**
- 12 **105.6.889.2 Compressed Natural Gas (CNG)**
- 13 **105.6.889.3 Liquefied Petroleum Gas (LPG)**
- 14 **105.6.889.4 Hydrogen**
- 15 **105.6.8990 Motor fuel dispensing facilities – Fleet/private service.** A permit is required for  
16 operation of fleet or private motor fuel dispensing facilities. Fuel calculated and assessed  
17 separately.
- 18 **105.6.8990.1 Flammable and combustible liquids**
- 19 **105.6.8990.2 Compressed Natural Gas (CNG)**
- 20 **105.6.8990.3 Liquefied Petroleum Gas (LPG)**
- 21 **105.6.8990.4 Hydrogen**
- 22 **105.6.901 Motor fuel storage systems.** A permit is required for certification to install, test,  
23 alter, repair or remove equipment.
- 24 **105.6.942 Motorcycle vehicle repair shops.** A permit is required to operate a motorcycle  
25 vehicle repair shop.
- 26 **105.6.923 Nitrous oxide-piped systems.** A permit is required to maintain a nitrous oxide-  
27 piped system.

- 1 **105.6.934 Occupant load increase.** A permit is required to increase the occupant load of an  
2 assembly occupancy. The maximum increase shall be 10% when egress, seating, etc.  
3 remain in compliance with this code. This permit shall be for one event only.
- 4 **105.6.9495 Open flame.** A permit is required for any open flame equipment.
- 5 **105.6.956 Open flames and torches.** A permit is required to remove paint with a torch; or to  
6 use a torch or open-flame device in a hazardous fire area.
- 7 **105.6.967 Open flame on aircraft servicing ramp.** An annual permit is required to use any  
8 open flame equipment on an aircraft fuel service ramp.
- 9 **105.6.978 Organic coatings.** A permit is required for any organic-coating manufacturing  
10 operation producing one gallon (4L) or more of an organic coating in one day.
- 11 **105.6.989 Ovens (industrial baking or drying).** A permit is required for operation of industrial  
12 ovens regulated by Chapter 21.
- 13 **105.6.99100 Ozone generator.** A permit is required to operate an ozone generator.
- 14 **105.6.1001 Pallet storage.** A permit is required for indoor or outdoor pallet storage of 2,000  
15 square feet or more.
- 16 **105.6.1042 Parade floats.** A permit is required for any parade float ground or airborne.
- 17 **105.6.1023 Places of assembly.** A permit is required to operate a place of assembly.
- 18 **105.6.1023.1 Occupant load > 150 but < 299 300**
- 19 **105.6.1023.2 Occupant load 300 - 2500**
- 20 **105.6.1023.3 Occupant load > 2500**
- 21 **105.6.1034 Plan review.** A permit is required for plan review.
- 22 **105.6.1034.1 Development plan review** – assessed in half-hour increments
- 23 **105.6.1034.2 Pre-plan submittal consultation** – assessed in half-hour increments
- 24 **105.6.1034.3 HMIS, HMMP and hazardous materials generation**
- 25 **105.6.1034.4 Expedited plan review** – assessed in half-hour increments
- 26 **105.6.1034.5 Subsequent plan submittals** – 3<sup>rd</sup> and subsequent submittals
- 27 **105.6.1045 Plant husbandry.** A permit is required for the operation of a plant husbandry facility.
- 28 **105.6.1056 Plastic foam products (flammable).** A permit is required to store and use over  
29 1,000 lbs.

- 1 **105.6.1067 Powder coating (See Spray booth for powder coating).**
- 2 **105.6.1078 Pressure vessels.** A permit is required to use a pressure vessel.
- 3 **105.6.1089 Private fire hydrants. See Fire hydrants and valves.**
- 4 **105.6.109.10 Pyrophoric materials.** A permit is required to store or use pyrophoric materials.
- 5 **105.6.14011 Pyrotechnic special effects material.** A permit is required for use and handling of  
6 pyrotechnic special effects material.
- 7 **105.6.11412 Pyrotechnic event.** A permit is required for all pyrotechnic events
- 8 **105.6.1142.1 After-hours inspection**
- 9 **105.6.1142.2 Use of fog machine**
- 10 **105.6.1142.3 Indoor/Outdoor pyrotechnic event**
- 11 **105.6.1142.4 Use of propane effects**
- 12 **105.6.1142.5 Pyrotechnic inspector during event.** (Paid by promoter as after-hours  
13 inspection)
- 14 **105.6.1123 Pyrotechnician.** A permit/certificate of fitness is required for all pyrotechnicians.
- 15 **105.6.1134 Pyroxylin plastics.** A permit is required for storage or handling of 25 pounds (11  
16 kg) or more of cellulose nitrate (pyroxylin) plastics and for the assembly or manufacture of  
17 articles involving pyroxylin plastics.
- 18 **105.6.1145 Radioactive material.** A permit is required to store, use or handle radioactive  
19 material.
- 20 **105.6.14516 Recycling facilities.** A permit is required to operate a recycling facility.
- 21 **105.6.1167 Refrigeration equipment.** A permit is required to operate a mechanical  
22 refrigeration unit or system regulated by Chapter 6.
- 23 **105.6.1178 Repair garages** A permit is required for operation of major repair garages as  
24 defined in NFPA 30A.
- 25 **105.6.1189 Reviewing stands/grandstands.** A permit is required to erect and use reviewing  
26 stands or grandstands.
- 27 **105.6.14920 Salvage yard.** A permit is required to operate a salvage yard, not including other  
28 permits required by this code.

- 1 **105.6.1201 Special conditional permit.** A permit is required for special conditions, such as  
2 confined spaces, vacated areas, abandoned tanks, etc.
- 3 **105.6.1242 Special events.** A permit is required for special events.
- 4 **105.6.1242.1 Places of assembly** – any hazardous material or process at temporary  
5 events.
- 6 **105.6.1242.2 Places of assembly** – refueling operations at temporary events in assembly  
7 occupancies.
- 8 **105.6.1242.3 Places of assembly** – storage, use and handling of flammable/combustible  
9 liquids at temporary events.
- 10 **105.6.1242.4 Places of assembly** – storage, use and handling of compressed gases at  
11 temporary events.
- 12 **105.6.1242.5 Event within existing facility**
- 13 **105.6.1242.6 Plan submittal less than 14 days prior to event**
- 14 **105.6.1242.7 Outdoor with six or more fuel-fired cooking/heating units**
- 15 **105.6.1223 Special extinguishing system.** A permit is required to maintain a special  
16 extinguishing system.
- 17 **105.6.1234 Special fire alarm system.** A permit is required to maintain a special fire alarm  
18 system.
- 19 **105.6.12425 Special spray application projects.** A permit is required for applying flammable  
20 or combustible finishes to the interior of a structure.
- 21 **105.6.1256 Spray booth for powder coating.** A permit is required to use a spray booth for  
22 powder coating.
- 23 **105.6.1267 Spraying or dipping.** A permit is required to conduct a spraying or dipping  
24 operation utilizing flammable or combustible liquids regulated by Chapter 15.
- 25 **105.6.1267.1 One time/one location**
- 26 **105.6.1267.2 Annual/various locations**
- 27 **105.6.1267.3 Booth or room**
- 28 **105.6.1267.4 Limited spraying spaces**

- 1 **105.6.1278 Spraying of water based finishes.** A permit is required to conduct a spraying  
2 operation utilizing water based liquids.
- 3 **105.6.1289 Storage containers.**
- 4 **105.6.1289.1 Temporary – less than 180 days**
- 5 **105.6.1289.2 Permanent – 180 days or longer**
- 6 **105.6.12930 Storage of scrap tires and tire by-products.** A permit is required to establish,  
7 conduct or maintain storage of scrap tires and tire byproducts of 2,500 cubic feet (71 m<sup>2</sup>) or  
8 more total volume of scrap tires and for indoor storage of tires and tire byproducts.
- 9 **105.6.1301 Stored electrical energy emergency/standby power systems.** A permit is  
10 required to install or operate stored electrical energy emergency/standby power systems.
- 11 **105.6.1342 Sulphur/sulphur chloride.** A permit is required to store, sell or use sulphur or  
12 sulphur chloride.
- 13 **105.6.1323 Supervising station/central station.** A permit is required to receive fire alarm  
14 signals from a protected property.
- 15 **105.6.1334 Tanks (Change of content).** A permit is required to change the contents of a  
16 chemical or fuel storage tank.
- 17 **105.6.13435 Temporary fire standpipe.** A permit is required to install and maintain a  
18 temporary fire standpipe.
- 19 **105.6.1356 Temporary generator.** A permit is required to use a temporary generator.
- 20 **105.6.1367 Temporary heating appliance.** A permit is required to install or use a temporary  
21 heating appliance.
- 22 **105.6.1367.1 Temporary space heating appliances (electric) in existing buildings – all**  
23 **permits must be obtained from designated fire official via building ownership or management.**
- 24 **105.6.1378 Tents or temporary membrane structures.** See Section 2403.2.
- 25 **105.6.1378.1 Tent or temporary membrane structure** - not open on all sides and having an  
26 area in excess of 200 sq. ft.
- 27 **105.6.1378.2 Tent or temporary membrane structure** - open on all sides and having an  
28 area of 400 sq. ft. or more.
- 29 **105.6.1389 Tire rebuilding/recapping plants.** A permit is required for the operation and  
30 maintenance of a tire rebuilding or recapping plant.

- 1 **105.6.13940 Tire shredding.** A permit is required for operations involving shredding of tires.
- 2 **105.6.1401 Tire storage.** A permit is required for tire storage of 2500 cubic ft. or more in any  
3 one control area.
- 4 **105.6.1412 Trailer.** A permit is required for trailers used for office functions.
- 5 **105.6.1412.1** Temporary – less than 180 days
- 6 **105.6.1412.2** Permanent – 180 days or longer
- 7 **105.6.1423 Training fees.** A permit is required for Fire Department training.
- 8 **105.6.1423.1 High-rise building evacuation exercise**
- 9 **105.6.1423.2 Low-rise building evacuation exercise**
- 10 **105.6.1423.3 Building management/facility manager emergency procedures**  
11 **certification training** (per person)
- 12 **105.6.1423.4 Fire extinguisher training** (2 hours – does not include extinguisher; limited to  
13 5 persons)
- 14 **105.6.1423.5 Floor warden training** (limited to 5 persons)
- 15 **105.6.1423.6 Hazardous materials closure plan**
- 16 **105.6.1423.7 Hazardous materials waste generation plan**
- 17 **105.6.1423.8 Hazardous materials inventory statement training** (2 hours; limited to 5  
18 persons)
- 19 **105.6.1423.9 Hazardous materials management plan** (2 hours; limited to 5 persons)
- 20 **105.6.1423.10 Hazardous materials release mitigation training** (2 hours; limited to 10  
21 persons)
- 22 **105.6.1423.11 Safety and evacuation training** (2 hours; limited to 10 persons)
- 23 **105.6.1423.12 Fire safety public education presentation**
- 24 **105.6.1434 Underground hazardous material storage tanks.** A permit is required to maintain  
25 an underground hazardous material storage tank (per tank).
- 26 **105.6.1445 Underground spaces.** A permit is required to inspect and certify underground  
27 spaces.
- 28 **105.6.1456 Vacant properties.** A permit is required for vacant properties.

1 **105.6.1467 Varnishes.** A permit is required to store or use varnish.  
2 **105.6.1478 Waste material handling plant.** A permit is require to operate waste material  
3 handling plants, wrecking yards, junk yards and waste material-handling facilities.  
4 **105.6.1489 Waste receptacles.** A permit is required to install and maintain waste receptacles  
5 with a capacity greater than 20 cubic feet.  
6 **105.6.44950 Waxes.** A permit is required to store, sell or use 400 lbs. of wax or more.  
7 **105.6.1501 Wood products.** A permit is required to store 200 cubic ft. or more of wood  
8 products.  
9 **105.6.1512 Wooden packing boxes, cases and barrels (empty).** A permit is required to store  
10 2,000 cubic ft. or more.

11 **105.6.1523 Woodworking operations.** A permit is required to operate a woodworking  
12 operation that meets one of the following criteria:  
13 1. has more than three (3) fixed or table-mounted wood sawdust-producing pieces of  
14 equipment, or  
15 2. has a floor area greater than 2,500 sq. ft., or  
16 3. has a room or building considered to be an explosion hazard based on dust  
17 accumulations exceeding 1/8" or a visible dust cloud.

18 **Section 9.** That section 105.6.122.7 of the Fire Code is hereby amended by adding the  
19 language underlined below and deleting the language stricken below to read and be read as  
20 follows:

21 **105.6.122.7 Outdoor with ~~six or more~~ six or more fuel-fired cooking/heating units**

22 **Section 10.** That section 105.7 of the Fire Code is hereby amended by adding the  
23 language underlined below and deleting the language stricken below to read and be read as  
24 follows:

25 **105.7 Required construction permits.** The fire code official is authorized to issue construction  
26 permits for work as set forth in Sections 105.7.1 through 105.7.257.

27 **Section 11.** That sections 106.2.1 through 106.2.11 of the Fire Code are hereby  
28 renumbered and amended by adding the language underlined below and deleting the language  
29 stricken below to read and be read as follows:

30 **Sections 106.2.43 Dangerous or hazardous conditions or material through 106.2.413**  
31 **Townhomes, condominiums and apartments are added:**

1 **106.2.43 Dangerous or hazardous conditions or material.** The fire code official shall  
2 have the authority to order any person(s) to remove or remedy such dangerous or hazardous  
3 condition or material as set forth in this code. Any person(s) failing to comply with such order  
4 shall be in violation of this code.

5 **106.2.24 Right of entry.** The fire code official shall be authorized to inspect any building or  
6 premises for dangerous or hazardous conditions or materials as set forth in this code. Before  
7 entering, the fire code official shall obtain the consent of the occupant thereof or obtain a  
8 court warrant authorizing entry for the purpose of inspection except in those instances where  
9 an emergency exists.

10 **106.2.35 Emergency.** As used in 106.2.2, “emergency” means circumstances that the fire  
11 code official knows, or has reason to believe, exist and can constitute immediate danger to  
12 life and property.

13 **106.2.46 Authorized personnel.** Uniformed fire inspectors, fire investigators, and fire  
14 protection engineers shall be authorized to enter and inspect buildings, structures, vessels,  
15 vehicles, and premises as herein set forth. They shall be identified by credentials issued by  
16 the Department of Safety.

17 **106.2.46.1 Impersonation.** Persons shall not use a badge, uniform, or other credentials  
18 to impersonate the fire code official.

19 **106.2.57 Hazardous conditions.** Where conditions exist and are deemed hazardous to life  
20 and property by the fire code official, the fire code official shall have the authority to  
21 summarily abate such hazardous conditions that are in violation of this code.

22 **106.2.68 Plans and specification.** The fire code official shall have the authority to require  
23 plans and specifications to ensure compliance with applicable codes and standards. The  
24 plans and specifications shall bear the stamp of a professional engineer.

25 **106.2.79 Inspection of construction and installation.** The fire code official shall be notified  
26 by the person performing the work when the installation is ready for a required inspection or  
27 for fire protection or other life safety systems acceptance tests. All installations shall be  
28 complete prior to requesting an inspection or test. All components of a life safety system shall  
29 be installed prior to testing—no exceptions.

30 **106.2.79.1 Work in violation.** When any construction or installation work is being  
31 performed in violation of the plans and specifications approved by the fire code official, a  
32 written notice shall be issued to the responsible party to stop work on that portion of the  
33 work that is in violation. The notice shall state the nature of the violation, and no work  
34 shall be continued on that portion until the violation has been corrected.

1 **106.2.810 Stop work or evacuation.** The fire code official shall have the authority to order  
2 an operation or use stopped and the immediate evacuation of any occupied building, area of  
3 a building, or other property when such building, area of a building, or other property has  
4 hazardous conditions that present imminent danger.

5 **106.2.810.1 Non-complying work.** Whenever any work is being done contrary to  
6 provisions of this code, the fire code official is hereby authorized to order such work  
7 stopped. Such work should immediately stop until authorized by the fire code official to  
8 proceed.

9 **106.2.911 Standby personnel.** When, in the opinion of the fire code official, it is essential  
10 for public safety in a tent, canopy or membrane structure used as a place of assembly or any  
11 other use where people congregate, or any building, premises or property where people  
12 congregate, because of the number of persons, or the nature of the performance, exhibition,  
13 display, contest or activity, or when potentially hazardous conditions exist, or an occupant  
14 load varies due to large crowd movement from one building to another building or one area of  
15 a building to another area of the building, or there is a reduction in a life safety feature, or  
16 there is an impairment to a fire protection feature, the owner, agency or lessee shall employ  
17 and compensate through approved Department of Safety channels at a rate established by  
18 the Manger of Safety one or more firefighters of the City and County of Denver, as required  
19 by the fire code official. Such firefighter(s) shall be subject to the fire code official's orders at  
20 all times when so employed and shall be in uniform and remain on duty during the times such  
21 places are open to the public or when such activity is being conducted or, in the case of  
22 residential occupancies, whenever occupied.

23 **106.2.911.1 Owner's responsibility.** The owner, agent, or lessee shall employ  
24 standby fire personnel in an adequate number determined by the fire code official  
25 based on the potential hazard or reduction in a fire protection system or other life  
26 safety feature as described in Section 106.2.911, as required and approved, to be on  
27 duty. Such standby fire personnel or fire watch personnel shall be subject to the fire  
28 code official's orders at all times and shall be identifiable and remain actively on duty  
29 during the times such places are open to the public, when such activity is being  
30 conducted, or in residential buildings, whenever occupied.

31 **106.2.1012 Records.** The Fire Prevention and Investigation Division shall retain, for the life  
32 of the building or structure, a record of each inspection made showing the findings and  
33 disposition of each inspection made.

1 **106.2.4113 Townhouses, condominiums and apartments.** Portable fire extinguishers  
2 shall be mounted on the exterior at each level stairway(s) or one (2A 10BC) within each  
3 residential unit. When mounted on the exterior, the property management/homeowner's  
4 association (HOA) shall be responsible for the care, maintenance and recharging, and use of  
5 the fire extinguisher, including inspection. The homeowner shall submit a report to the  
6 property management (HOA) on an annual basis. Portable fire extinguishers shall be  
7 located, inspected and maintained in accordance with NFPA 10. The smoke detector(s)  
8 within the residential units shall be tested and maintained in accordance with NFPA 72. The  
9 carbon monoxide detectors shall be located, inspected, tested and maintained in accordance  
10 with NFPA 720. The homeowner shall submit a report to the property management/HOA on  
11 an annual basis of each test and battery replacement. The property management/HOA shall  
12 maintain a log of the inspection/test reports submitted to that office and Denver Fire  
13 Department Inspection personnel will review that log prior to conducting the inspection. If  
14 this information is not available, an inspection shall be made to determine that this equipment  
15 is in compliance with this code.

16 **Section 12.** That section 106.5 of the Fire Code is hereby amended by adding the  
17 language underlined below to read and be read as follows:

18 **106.5 Fees.** The Manager of Safety is authorized to adopt fee schedules necessary to cover  
19 administrative costs of inspections, licensing, record-keeping, etc., for all fire prevention  
20 programs under this Code.

21 **Section 13.** That the heading prior to section 106.6 of the Fire Code is hereby enacted  
22 and added by adding the language underlined below and section 106.6 is hereby amended by  
23 deleting the language stricken below and adding the language underlined below to read and be  
24 read as follows:

25 **Section 106.6 Special inspections is added:**

26 **106.6 Special inspections.** The fire code official is authorized to conduct special inspections,  
27 including fire safety inspections and systems acceptance testing, outside of normal business  
28 hours as deemed necessary to determine the extent of compliance with the provisions of this  
29 Code. The fire safety inspections and systems acceptance testing shall be performed by Denver  
30 Fire Department Fire Prevention personnel certified to the level of National Fire Protection  
31 Association Fire Inspector II and Department Fire Protection Engineer. The property owner,  
32 property manager, or contractor shall reimburse the City and County of Denver at the hourly rate  
33 established by the Manager of Safety. Special inspections outside of normal business hours

1 shall be a minimum of three (3) hours Monday ~~T~~through Friday and a minimum of four (4) hours  
2 on weekends and holidays.

3 **Section 14.** That section 107.7.2 of the Fire Code is hereby amended by adding the  
4 language underlined below and deleting the language stricken below to read and be read as  
5 follows:

6 **107.7.2 Permit required.** Permits shall be required as set forth in Section 105.6.534.

7 **Section 15.** That section 108.1 of the Fire Code is hereby amended by adding the  
8 language underlined below and deleting the language stricken below to read and be read as  
9 follows:

10 **108.1 Board of appeals established.** In order to hear and decide appeals of orders, decisions,  
11 or determinations made by the ~~F~~fire code official relative to the application and interpretation of  
12 this Code, the Manager of Safety can hear the appeal alone or appoint a board of appeals  
13 consisting of members who are qualified by experience and training to make decisions pertinent  
14 to hazards of fire, explosions, hazardous conditions, flammable and combustible liquids and  
15 gases, the use, storage and production of hazardous materials, or fire protection and other life  
16 safety systems and features.

17 **Section 16.** That sections 112, 113, 114 and 115 of the Fire Code are hereby renumbered  
18 and amended by adding the language underlined below and deleting the language stricken to  
19 read and be read as follows:

20 **Section ~~114~~114 Licenses is added:**

21 **~~SECTION 114~~SECTION 114**

22 **LICENSES**

23 **~~114.1~~114.1 General.** A license is authority granted to the person to whom it is issued to perform  
24 the work authorized by the license.

25 **~~114.2~~114.2 Licenses required.** Denver Fire Department licenses shall be required for the  
26 design, installation, modification, inspection, and testing of all Life Safety Systems and  
27 equipment. All fitters/technicians shall be licensed to design, install, add to, modify, and perform  
28 all types of inspections, testing, maintenance, and repair of factory-engineered equipment. All  
29 persons required to have a permit, license or certificates shall have a current—for calendar  
30 year—permit, license or certificate.

31 **~~114.2.1~~114.2.1 Fire sprinkler systems – NFPA 13.**

32 **~~114.2.2~~114.2.2 Fire sprinkler systems – NFPA 13D.**

33 **~~114.2.3~~114.2.3 Fire sprinkler systems – NFPA 13R.**

34 **~~114.2.4~~114.2.4 Fire standpipe systems – NFPA 14.**

- 1       **114.2.5 Fire pumps.**
- 2       **114.2.6 Kitchen hood extinguishing systems.**
- 3       **114.2.7 Dry chemical extinguishing systems.**
- 4       **114.2.8 Carbon dioxide extinguishing systems.**
- 5       **114.2.9 Special extinguishing systems.**
- 6       **114.2.10 Fire alarm systems.**
- 7       **114.2.11 Fire detection systems.**
- 8       **114.2.12 Emergency communication systems.**
- 9       **114.2.13 Electrical signaling and central wiring.**
- 10       **114.2.14 Department of safety radio enhancement systems.**
- 11       **114.2.15 Smoke control systems.**
- 12       **114.2.16 Firefighter's emergency elevator recall systems.**
- 13       **114.2.17 Foam extinguishing systems.**
- 14       **114.2.18 Portable fire extinguishers.**
- 15       **114.2.19 Refrigerant safety / alarm systems.**
- 16       **114.2.20 Ammonia safety / alarm systems.**
- 17       **114.2.21 Carbon monoxide safety / alarm warning systems.**
- 18       **114.2.22 Clean agent fire extinguishing systems.**
- 19       **114.2.23 Oxygen coordinator.**
- 20       **114.2.24 Oxygen supply and delivery.**
- 21       **114.2.25 Fire foam extinguishing systems.**
- 22       **114.2.26 Backflow prevention for fire sprinkler systems.**
- 23       **114.2.27 Carbon monoxide detection systems.**
- 24       **114.2.28 Central station operator.**
- 25       **114.2.29 Central station runner.**
- 26       **114.2.30 Rubbish and linen handling systems.**
- 27       **114.2.31 Fire doors and other opening protectives.**

28       **Section 115 Public Fire Education is added:**

29       **SECTION 115**

30       **PUBLIC FIRE EDUCATION**

31       **115.1 General.** The fire code official shall have the authority to develop and implement a  
32 public fire safety education program as deemed necessary for the general welfare with respect to  
33 the fire hazards within the jurisdiction.

34       **115.2 Educational programs and messages.** The fire code official shall have the authority

1 to ensure that duly authorized public fire safety educational programs or public fire safety  
2 messages are disseminated to the general public.

3 **443115.2.1 Juvenile firesetters intervention program.** Juveniles suspected of  
4 firesetting—curious or malicious—shall be required to participate in the Denver Fire  
5 Department Juvenile Firesetters Intervention Program.

6 **Section 444116 Emergency Plans and Procedures is added:**

7 **SECTION 444116**

8 **EMERGENCY PLANS AND PROCEDURES**

9 **444116.1 General.** Where required, emergency plans, staff training, and emergency evacuation  
10 drills are required for all occupants.

11 **444116.2. Plan requirements.** Emergency plans and emergency evacuation drills shall be  
12 developed in accordance with the Denver Fire Department Fire Prevention and Investigation  
13 Division's guidelines, NFPA 1600, *Standard on Disaster/Emergency Management and Business*  
14 *Community Programs*, and Chapter 4, Emergency Planning and Preparedness, of this code.

15 **444116.3 Review.** Emergency plans shall be submitted annually to the Division for review.

16 **444116.4 Maintenance.** Emergency plans shall be reviewed and updated annually. Revised  
17 plans shall be submitted for review and updates shall be provided whenever changes are made  
18 in the occupancy or physical arrangement of the building or fire protection systems or features.  
19 The owner or manager shall provide floor plans to the Denver Fire Department Fire Prevention  
20 and Investigation Division in a manner approved by the fire code official. The person  
21 developing/updating the emergency plans shall be certified by the Denver Fire Department. See  
22 IFCA Section 403.3.

23 **Section 445117 Fire Alarm Monitoring – Permits and Licenses is added:**

24 **SECTION 445117**

25 **FIRE ALARM MONITORING - PERMITS AND LICENSES**

26 **445117.1 General.** The provisions of this section apply to the installation, operation of, and  
27 scope of monitoring.

28 **445117.2 Central alarm station / Supervising station.** These facilities, licensed by the Denver  
29 Fire Department, monitor remote fire alarm signaling systems when personnel licensed by the  
30 Denver Fire Department are in attendance at all times to take such action as required for the  
31 notification of the Denver Fire Department.

32 **445117.3 Permits.** Permits shall be obtained annually for central alarm station / supervising  
33 stations and the operators who take such action as required for notification of the Denver Fire  
34 Department. All central alarm station / supervising stations and operators shall have current—for

1 current calendar year—permits and licenses.

2 **445117.4 Definitions.**

3 **CENTRAL ALARM STATION/SUPERVISING STATION.** A facility that receives fire alarm  
4 signals and at which personnel are in attendance at all times to respond to these signals. A  
5 supervising station that is licensed for central station service.

6 **CLASS I FIRE ALARM MONITORING.** The monitoring of a fire alarm system by a licensed  
7 central station that is required by Denver’s Building and Fire Codes.

8 **CLASS II FIRE ALARM MONITORING.** The monitoring of a fire alarm system by a licensed  
9 central station that is not required by Denver’s Building and Fire Codes.

10 **OPERATOR.** A competent person employed by a central alarm station and licensed by the  
11 Denver Fire Department to take such action as required for notification of the Denver Fire  
12 Department.

13 **RUNNER.** A qualified person who responds to the location where a reported fire alarm system  
14 has been activated for the purpose of silencing, restoring, or confirming that the system is  
15 restored to a normal condition.

16 **445117.5 License required.**

17 **445117.5.1 Central alarm station/supervising station.** No person or public agency shall  
18 monitor fire alarm systems in the City and County of Denver without first obtaining a license  
19 to operate a Class I or Class II central alarm station/supervising station.

20 **445117.5.2 Operator.** No person shall be employed as an operator in a central alarm  
21 station/supervising station that monitors fire alarm systems in the City and County of Denver  
22 unless licensed as an apprentice operator or operator by the Denver Fire Department.

23 **445117.5.2.1 Class I operator.** A Denver Fire Department Class I Operator license shall  
24 authorize the holder to act as an operator in any central alarm station/supervising station.

25 **445117.5.2.2 Class II operator.** A Denver Fire Department Class II Operator license shall  
26 authorize the holder to act as an operator in any Class II central alarm station/supervising  
27 station.

28 **445117.5.2.3 Apprentice operator.** A Denver Fire Department Apprentice Operator  
29 license shall authorize the holder to act as an operator only under the constant  
30 supervision of a licensed operator.

31 **445117.5.3 Runner.** A Denver Fire Department central alarm station/supervising station  
32 Runner license shall authorize the holder to act as a runner for any Class I or Class II central  
33 alarm station/supervising station.

34 **445117.6 Runner service.** The central alarm station/supervising station shall provide runner

1 service to all Class I alarms. Maximum response time from receipt of alarm to arrival of runner  
2 service shall not exceed 45 minutes.

3 **Section 17.** That section 309.2.2.5 of the Fire Code is hereby amended by adding the  
4 language underlined below and deleting the language stricken below to read and be read as  
5 follows:

6 **309.2.2.5 Neutralization.** An approved method and materials capable of neutralizing a spill  
7 from the largest battery to a pH between ~~7.0~~ 5.0 and 9.0 shall be provided.

8 **Section 18.** That section 505.1 of the Fire Code is hereby amended by adding the  
9 language underlined below and deleting the language stricken below to read and be read as  
10 follows:

11 **505.1 Address identification.** New and existing buildings shall have approved address  
12 numbers, building numbers or letters, or approved building identification placed in a position that  
13 is plainly legible and visible from the street or road fronting the property and from the street or  
14 road or alleyway at the rear of the property. Approved building numbers or letters or approved  
15 building identification must be accompanied by a building address. These numbers and letters  
16 shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical  
17 letters. Numbers shall be a minimum of 6 inches high with a minimum stroke width of 0.75  
18 inches.

19 **Section 19.** That the title of section 509 of the Fire Code is hereby amended by adding  
20 the language underlined below and deleting the language stricken below to read and be read as  
21 follows:

22 **SECTION 509**  
23 **FIRE DEPARTMENT ACCESS TO PROTECTION EQUIPMENT IDENTIFICATION AND**  
24 **ACCESS**

25 **Section 20.** That section 509.3 of the Fire Code is hereby amended by adding the  
26 language underlined below to read and be read as follows:

27 **509.3 Access to fire pumps.** Access to fire pumps in new buildings constructed after adoption  
28 of the 2008 Fire Code Amendments shall be located at grade level with direct access to outside  
29 or located one level below grade. Pump rooms that are located one level below grade shall be  
30 placed such that there are no intervening rooms between the stairway door serving that level and  
31 the pump room. Door serving the pump room shall be within 25 ft of the stairway door. The  
32 stairway that serves the lower level shall exit directly to outside. Where a dedicated stairway is  
33 provided to access the pump room and mechanical rooms, stairway width shall not be less than  
34 36 inches.

1           **Section 21.** That section 510.1.1.3 – subsection 7 is hereby amended by adding the  
2 language underlined below and deleting the language stricken below to read and be read as  
3 follows:

4 **7. Shop drawings.** Shop drawings shall be submitted per Appendix K and approved prior to  
5 installation of any RES. Drawings shall be a deferred submittal in accordance with IBCA  
6 Section ~~154~~ 133.5. Three (3) sets of scaled, engineered installation shop drawings shall be  
7 provided. Documents shall be of sufficient clarity and detail to fully describe the proposed  
8 installation and equipment. Handwritten notes or comments on drawings are not acceptable.

9           **Section 22.** That section 604.1.1 of the Fire Code is hereby amended by adding the  
10 language underlined below and deleting the language stricken below to read and be read as  
11 follows:

12 **604.1.1 Stationary generators.** Stationary emergency and standby power generators shall be  
13 installed in accordance with NFPA 37, NFPA 70 (National Electrical Code), NFPA 110 and NFPA  
14 111 and listed per UL 2200. All generator sets shall be located at grade level, or one level below  
15 grade, and the filling connection shall be located in accordance with Chap 34. Emergency power  
16 systems shall be as defined in NFPA 70, Article 700 [NFPA 110 Type 10]. Standby power  
17 systems required by this or other adopted codes and standards of the local authorities having  
18 jurisdiction shall be as defined in NFPA 70, Article 701 [NFPA 110 Type 60]. Other standby  
19 power systems shall be as defined in NFPA 70, Article 702. All generators shall be provided with  
20 a remote status panel in accordance with NFPA 110 and complying with A907.2.13.8. Panel  
21 location shall be in an area approved by the fire code official.

22           **Section 23.** That section 803.5.1.1 of the Fire Code is hereby enacted and added to the  
23 Fire Code to read and be read as follows:

24 **Section 803.5.1.1 Method A test protocol is replaced in its entirety with the following:**

25 **803.5.1.1 Method A test protocol.** During the Method A protocol, flame shall not spread to the  
26 ceiling during the 40 kW exposure. During the 150 kW exposure, the textile wall covering shall  
27 comply with all of the following:

- 28 1. Flame shall not spread to the outer extremity of the sample on the 8-foot by 12-foot (2438 mm  
29 by 3658 mm) wall.
- 30 2. The specimen shall not burn to the outer extremity of the 2-foot-wide (610mm) samples  
31 mounted in the corner of the room.
- 32 3. Burning droplets deemed capable of igniting textile wall coverings or that burn for 30 seconds  
33 or more shall not form.
- 34 4. Flashover, as defined in NFPA 265, shall not occur.

1 5. The maximum net instantaneous peak heat release rate, determined by subtracting the  
2 burner output from the maximum heat release rate, does not exceed 300 kW.

3 **Section 24.** That section 803.5.1.2 of the Fire Code is hereby enacted and added to the  
4 Fire Code to read and be read as follows:

5 **Section 803.5.1.2 Method B test protocol is replaced in its entirety with the following:**

6 **803.5.1.2 Method B test protocol.** During the Method B protocol, the textile wall covering or  
7 expanded vinyl wall covering shall comply with the following:

- 8 1. During the 40-kW exposure, flames shall not spread to the ceiling.
- 9 2. The flame shall not spread to the outer extremities of the samples on the 8-foot by 12-foot  
10 (2438 by 3658 mm) walls.
- 11 3. Flashover as defined in NFPA 265 shall not occur.
- 12 4. For newly introduced wall and ceiling coverings, the total smoke released (TSR) throughout  
13 the test shall not exceed 1,000 m<sup>2</sup> (NFPA 286 does not provide for calculation of TSR in  
14 English units).

15 **Section 25.** That section 901.2 of the Fire Code is hereby enacted and added to the Fire  
16 Code to read and be read as follows:

17 **Section 901.2 Construction documents is replaced in its entirety with the following:**

18 **901.2 Construction documents.** The fire code official shall have the authority to require  
19 construction documents and calculations for all fire protection systems and to require permits be  
20 issued for the installation, rehabilitation or modification of any fire protection system.  
21 Construction documents for fire protection systems shall be submitted for review and approval  
22 prior to system installation. Shop drawings shall be provided in accordance with Appendix K.

23 **Section 26.** That section 904.3.4.1 of the Fire Code is hereby amended by adding the  
24 language underlined below and deleting the language stricken below to read and be read as  
25 follows:

26 **904.3.4.1** Visible notification shall be provided by ~~red~~ yellow strobes. Pending-discharge and  
27 discharge warning strobes shall be in conspicuous locations as approved by the fire code official  
28 and activated by the agent releasing panel. Subject to the approval of the fire code official,  
29 pending-discharge and discharge warning may be provided by combined audible/visible  
30 appliances. No more than two flash rates shall be possible in a single field of view per NFPA 72.  
31 Where pending-discharge and discharge warning strobes are provided in addition to visible fire  
32 alarm notification appliances, the warning strobes shall be synchronized, and fire alarm visible  
33 notification appliances shall be synchronized. A warning sign shall be provided that reads,

1 "WARNING – Fire Extinguishing Agent Release in Progress." Warning sign format, color and  
2 letter style shall comply with ANSI Z535.

3 **Section 27.** That section 905.2 of the Fire Code is hereby amended by adding the  
4 language underlined below and deleting the language stricken below to read and be read as  
5 follows:

6 **905.2** Standpipe systems shall be installed in accordance with this section and NFPA 14. When  
7 water pressure at a standpipe outlet exceeds 175 psi static or residual at 250 gpm flow, a  
8 pressure-reducing valve shall be provided. The required pressure-reducing valves shall be  
9 located at the hose valve outlet only. The pressure-reducing valves shall not be located on the  
10 standpipe riser. Only field-adjustable valves that have a nested spring design utilizing two  
11 custom springs allowing low torque field adjustment of the pressure-reducing functions shall be  
12 allowed. The valve shall have five (5) field-adjustable valve settings (A-E) on a color-coded  
13 indication label. Pin-in hex security screws shall be installed to secure the hand wheel and a  
14 high-impact plastic shield covering the pressure-reducing adjustment mechanism. A pin-in hex  
15 bit shall be supplied with each valve. The pressure adjustment mechanism shall be actuated  
16 using an aluminum adjustment rod provided with each valve and actuated by rotating in either a  
17 clockwise or counter-clockwise direction. Pressure gauge taps shall be provided on inlet and  
18 discharge sides of each valve. A reflective decal shall be installed on the high-impact plastic  
19 shield with arrows and words indicating the direction to increase or decrease pressure. If special  
20 tools are required to make field adjustments, a minimum of four (4) such tools shall be provided  
21 at locations approved by the Fire Department.

22 **Section 28.** That section 907.1.1 of the Fire Code is hereby amended by adding the  
23 language underlined below and deleting the language stricken below to read and be read as  
24 follows:

25 **907.1.1 Fire alarm shop drawings.** Shop drawings for fire alarm systems shall be submitted for  
26 permit application as a deferred submittal per IBCA Section ~~454~~133.5. Plan review and approval  
27 are required prior to issuance of a permit for system installation. Two sets of scaled, engineered  
28 installation shop drawings shall be submitted. Documents shall be of sufficient clarity and detail  
29 to fully describe the scope of work. Handwritten notes and comments on reproduced drawings  
30 are not acceptable. Submittals shall comply with Appendix K.

31 **Section 29.** That section 907.1.3 of the Fire Code is hereby amended by adding the  
32 language underlined below and deleting the language stricken below to read and be read as  
33 follows:

1 **907.1.3 Central alarm station connection.** All fire alarm systems required by this code or by  
2 special agreement shall be monitored by an approved Class I supervising station complying with  
3 Section 916 and in accordance with the Denver Municipal Code. Multiple central alarm station  
4 connections from one building are not permitted. Alternatively, Fire Department radio boxes may  
5 be installed at locations approved by the Fire Department. These boxes shall typically be  
6 installed at locations of high-hazard, high occupancy or that require immediacy of response due  
7 to limitations in the occupants' capabilities for self preservation. Under no circumstances shall  
8 a DFD radio box be removed from a protected premise without written approval of the fire code  
9 official.

10 **Section 30.** That subsection 1 of section 907.2.13.2 of the Fire Code is hereby amended  
11 by adding the language underlined below and deleting the language stricken below to read and  
12 be read as follows:

13 1. Hardwired components, in accordance with Section 907.2.13.~~32~~.2, consisting of plug-in phone  
14 jacks, permanent handsets, amplifiers and cable system for selective and "all-call"  
15 operation. Components shall be listed under UL product category code designation UOXX.

16 **Section 31.** That section 907.4.2 of the Fire Code is hereby amended by adding the  
17 language underlined below and deleting the language stricken below to read and be read as  
18 follows:

19 **907.4.2 Delayed egress locks.** Where delayed egress locks are installed on means of egress  
20 doors in accordance with Section 1008.1.8.~~69~~.7, an automatic smoke or heat detection system  
21 shall be installed as required by that section and in compliance with IBCA Appendix L.

22 **Section 32.** That section 907.6.2.3.3 of the Fire Code is hereby amended by adding the  
23 language underlined below to read and be read as follows:

24 **907.6.2.3.3 Visible notification appliances is replaced in its entirety with the following:**

25 **907.6.2.3.3 Visible notification appliances in Groups R-1 and I-1 occupancies.** Group R-1  
26 and I-1 sleeping units shall be provided with visible notification activated by an integral in-room  
27 smoke alarm required by IFC 907.2.11.2. Visible notification appliances shall also be provided  
28 which are activated by the building fire alarm and/or automatic sprinkler system. The minimum  
29 number of sleeping units to be provided with visible notification appliances shall be in  
30 accordance with IFC Table 907.6.2.3.3. All accessible units required by IBC Table 1107.6.1.1  
31 shall be provided with visible notification appliances as part of this requirement.

32 **Section 33.** That section 907.6.2.3.4 of the Fire Code is hereby amended by adding the  
33 language underlined below to read and be read as follows:

34 **907.6.2.3.4 Group R-2 is replaced in its entirety with the following:**

1 **Visible notification appliances in Group R-2 occupancies.** Where a fire alarm and/or  
2 automatic sprinkler system is installed in R-2 occupancies, visible notification appliances shall be  
3 provided in accordance with IFC Table 907.6.2.3.3. All accessible units required by IBC Table  
4 1107.6.1.1 shall be provided with visible notification appliances as part of this requirement.

- 5 1. Single- and multiple-station smoke alarms (120 Vac) shall have integrated visible  
6 notification appliances for occupant notification within each dwelling unit or sleeping unit.
- 7 2. Visible notification appliances activated by the building fire alarm system shall be provided  
8 in dwelling units and sleeping units. These visible notification appliances shall be located in  
9 the living rooms, sleeping rooms, kitchens and toilet rooms.

10 **Section 34.** That section 907.7.3 of the Fire Code is hereby amended by adding the  
11 language underlined below to read and be read as follows:

12 15. Radio communicator trouble

13 **Section 35.** That subsection 2 of section 907.7.3.1.3 of the Fire Code is hereby  
14 amended by adding the language underlined below and deleting the language stricken below to  
15 read and be read as follows:

- 16 2. Adequacy of display for operational purposes. Displays shall be capable of presenting the  
17 entire floor plate with all devices and device status shown on an initial alarm screen. On  
18 any alarm indication, the floor plate in alarm shall come up on the screen with all devices  
19 shown and the device in alarm highlighted. Display segmentation from this initial view  
20 shall be possible for expanding the view of the area of alarm incidence. Displays shall be  
21 contrasting black lines and lettering on a white backgrounds.

22 **Section 36.** That sections 907.7.7, 907.7.7.1 and 907.7.7.2 of the Fire Code are hereby  
23 renumbered and amended by deleting the language stricken to read and be read as follows:

24 **Section 907.7.7-8 Non-required full or partial systems is added:**

25 **907.7.7-8 Non-required full or partial systems.** Fire alarm systems and fire detection systems  
26 not required in this Code or by special agreement are not required to be connected to a central  
27 station. Where non-required fire alarm and/or fire detection systems are connected to a central  
28 station, the central station shall be an approved Class I central station. Multiple central station  
29 connections from one building are not permitted unless approved by the fire code official.  
30 Installation of non-required full or partial fire alarm or fire detection systems shall comply with  
31 NFPA 72. Annunciation shall be provided in accordance with Section 907.7.3.1.1. Annunciator  
32 and control panels for non-required or partial systems shall be of an approved type and have  
33 permanent signage indicating "Non-required System" or "Partial System." Partial and non-

1 required systems shall be maintained operational. System removal shall be permitted only with  
2 the approval of the fire code official.

3 **Exception:** New and existing dwellings regulated by the International Residential Code  
4 (IRC).

5 **907.7.7-8.1 General system design and installation requirements.** Shop drawings must be  
6 submitted for approval. Documents shall be stamped and signed by a professional engineer  
7 licensed by the State of Colorado and shall comply with Section 907.1.1. Non-required systems  
8 installed in a building with a required fire alarm system shall have the non-required system  
9 connected to the required fire alarm control panel. Each non-required system shall annunciate as  
10 a separate zone at the required fire alarm control panel. Multiple fire alarm control panels are  
11 not allowed where a required system is installed.

12 **907.7.7-8.2** Design criteria for non-required fire alarm systems shall be as follows:

- 13 1. A minimum of one audible/visible alarm appliances per floor in an approved location.
- 14 2. One initiating device zone per floor.
- 15 3. Existing duct detectors are not required to be connected to a non-required system.
- 16 4. Secondary power is required for the fire alarm control panel per NFPA 72.
- 17 5. Multiple non-required, non-monitored systems in a building are not required to be  
18 interconnected.

19 **Section 37.** That section 909.11 of the Fire Code is hereby amended by adding the  
20 language underlined below and deleting the language stricken below to read and be read as  
21 follows:

22 **909.11 Power systems.** The smoke control system shall be supplied with two sources of power.  
23 Primary power shall be from the normal building power system. Secondary power shall be from  
24 an approved emergency source complying with the ~~ICC~~ National Electrical Code. The  
25 emergency power source and its transfer switches shall be in a separate room from the normal  
26 power transformers and switch gear and shall be enclosed in a room constructed of not less than  
27 1-hour fire barriers ventilated directly to and from the exterior. Power distribution from the two  
28 sources shall be by independent routes. Transfer to full emergency power shall be automatic and  
29 within 10 seconds of failure of the primary power. ~~The systems shall comply with this code or~~  
30 ~~NFPA 70.~~

1           **Section 38.** That section 909.18.3 of the Fire Code is hereby amended by adding the  
2 language underlined below and deleting the language stricken below to read and be read as  
3 follows:

4           **909.18.3 Annual tests.** Annual tests shall be performed in accordance with Sections 909.18.3.1  
5 and 909.18.3.2, on all smoke control systems including those installed prior to adoption of this  
6 code. It is recognized that smoke control systems installed prior to adoption of this Code could  
7 have parameters that are different than those described in this section. In those cases, smoke  
8 control tests shall be adjusted accordingly to meet the intent of this section.

9           For high-rise buildings, every fifth year the annual test shall be performed in the presence of  
10 a representative of the Denver Fire Department Fire Prevention or Operations Division. DFD  
11 shall be notified five (5) days in advance of this test to determine a mutually-agreed upon date  
12 and time for performance of this test. An operational permit is required for this testing per IFCA  
13 ~~405.6.44.3~~105.6.46.3.

14           **Section 39.** That section 909.21.4.1.2 of the Fire Code is hereby amended by adding the  
15 language underlined below to read and be read as follows:

16           **909.21.4.1.2 Operation.** Each stairway pressurization system shall be enclosed in a two-hour  
17 fire-resistive enclosure in accordance with ASTM E 119 as part of the fire-resistance rated  
18 assembly, from the outdoor air intake to the stairway enclosure penetration. Each fan discharge  
19 shall be provided with a duct smoke detector that shall be annunciated as a supervisory signal at  
20 the fire command center (graphic panel) and illuminate a lamp adjacent to the fan status  
21 indicator on the firefighters smoke control panel. The capability to manually override the  
22 operation of each fan shall be provided to Fire Department personnel in the fire command  
23 center. Fans shall not shut off until manually overridden by Fire Department personnel or until  
24 the fire alarm system is reset.

25           **Section 40.** That section 909.21.4.2.2 of the Fire Code is hereby amended by adding the  
26 language underlined below to read and be read as follows:

27           **909.21.4.2.2 Operation.** Each pressurization system shall be enclosed in a two-hour fire  
28 resistive enclosure in accordance with ASTM E 119 as part of the fire-resistance rated assembly,  
29 from outside air intake to the hoistway penetration. Each fan discharge shall be provided with a  
30 duct smoke detector that shall be annunciated as a supervisory signal at the fire command  
31 center graphic panel and illuminate a lamp adjacent to the fan status indicator on the firefighters  
32 smoke control panel. Fans shall not shut off until manually overridden by Fire Department  
33 personnel or until the fire alarm system is reset.

1           **Section 41.** That section 909.21.8.1 of the Fire Code is hereby amended by adding the  
2 language underlined below to read and be read as follows:

3 **909.21.8.1 Requirements.** Smoke control systems shall be maintained in operational condition  
4 as required by the code under which the system was installed. Construction drawings and  
5 system sequence of operation shall be submitted for approval in accordance with Appendix K.  
6 The upgraded system shall be considered the new requirement and documented as approved by  
7 the Denver Building Department and the Denver Fire Department. Future work shall not be  
8 allowed to adversely affect the performance of the system.

9           **Section 42.** That section 910.3.1.1 of the Fire Code is hereby amended by adding the  
10 language underlined below and deleting the language stricken below to read and be read as  
11 follows:

12 **910.3.1.1. Gravity-operated drop out vents is deleted in its entirety.**

13           That section 1007.8.1 of the Fire Code is hereby amended by adding the language  
14 underlined below and deleting the language stricken below to read and be read as follows: (only  
15 underline black text)

16           **Section 43.** That section 1007.8.1 of the Fire Code is hereby amended by adding the  
17 language underlined below and deleting the language stricken below to read and be read as  
18 follows:

19 **~~1007.8.1 Two-way communication~~ System requirements.** A two-way communication system  
20 shall provide visual and two-way voice communication between each required location and the  
21 master control station. If the master control station is not constantly attended, the two-way  
22 communication system shall have a timed automatic telephone dial-out capability providing two-  
23 way voice communication with a ~~central supervising station~~ monitoring location or 911. User  
24 interfaces provided in addition to those in required locations shall comply with this section.

25           Subject to approval by the fire code official, the master control station shall be installed in  
26 the Fire Command Center (FCC) or Fire Command Room (FCR) (see IFCA Sections 508.1 and  
27 508.2). In a building where an FCC or an FCR is not provided, the master control station shall  
28 be installed in a central control point location approved by the fire department. In both cases, a  
29 second master control station is permitted to be installed in a location approved by the fire  
30 department. In buildings provided with two master control stations, required features and  
31 functionality shall be provided simultaneously at both.

32           When activated, the master control station in the FCC or FCR shall override any additional  
33 master control station and telephone connection established with a central supervising station or

1 911. In a building provided with two master control stations and where an FCC or an FCR is not  
2 provided, the fire code official shall designate the overriding master control station.

3 A call for assistance from the required locations shall be directed to the master control  
4 station and answered by authorized personnel capable of taking appropriate action. It shall not  
5 be transmitted to an automated answering system.

6 When the master control station is not constantly attended, the call for assistance shall be  
7 redirected automatically within 30 seconds to a ~~listed central supervising station~~ monitoring  
8 location. The call shall be redirected to 911 if the building does not have a monitored fire alarm  
9 or suppression system or if the central station is incapable of answering the call or initiating the  
10 appropriate response. Two-way voice communication shall be established between the initiating  
11 location and the person answering the call.

12 Two-way voice communication shall be discontinued only when the authorized or  
13 emergency personnel terminate the call.

14 The means of two-way communication shall be connected to a source of, or automatically  
15 transferred to an alternate (standby, emergency, etc.) source of power capable of providing the  
16 required functionality for a minimum of four hours when the normal power supply fails.

17 The means of two-way communication shall be monitored for integrity and annunciated  
18 per NFPA 72 (see 2007 NFPA 72 Section 4.4.7; the means of two-way communication shall not  
19 be considered “supplementary”).

20 The user interface at the required locations shall be provided with the following features:

- 21 1. The user interface shall be accessible and usable by people with disabilities. Clearance,  
22 location, protrusion, labeling, signage and operability of the user interface shall comply  
23 with ANSI A117.1
- 24 2. A push button to activate the means of two-way communication shall be provided on the  
25 user interface. The button shall be visible and permanently identified as “HELP” on or  
26 adjacent to the button. Tactile operating instructions shall be incorporated with or  
27 adjacent to the “HELP” button.
- 28 3. When the Help button is pushed, the means of two-way communication shall initiate a call  
29 for assistance at the master control station. A visual indication shall be provided on or  
30 adjacent to the “HELP” button, and an audible signal shall be provided to acknowledge  
31 successful initiation. The visual indication shall remain activated until two-way voice  
32 communication is established.

1 4. Audible and visual indications shall be provided to acknowledge two-way voice  
2 communication has been established. After the call acknowledgement signals are sent,  
3 two-way voice communication shall be established without any intentional delay or  
4 required intervention by the person initiating the call. The visual indication shall be  
5 deactivated only when the two-way voice communication is terminated.

6 5. Directions for use shall be provided at the user interface per Section 1007.8.2.

7 **Section 44.** That the Exceptions to section 1009.13.3 of the Fire Code are hereby  
8 renumbered and amended by adding the language underlined below and deleting the language  
9 stricken below to read and be read as follows:

10 **Exceptions:**

11 ~~31.~~ Roof hatches are not required on pressurized stair enclosures.

12 ~~42.~~ Roof hatches are not required on stair enclosures provided with a penthouse complying with  
13 IBC Section 1509.2.

14 **Section 45.** That the Exceptions to section 1011.2 of the Fire Code are hereby  
15 renumbered and amended by adding the language underlined below and deleting the language  
16 stricken below to read and be read as follows:

17 **Exceptions:**

18 ~~31.~~ Tactile signs required by IFC Section 1011.3 need not be provided with illumination.

19 ~~42.~~ Edge-illuminated signs are permitted where listed and labeled in accordance with UL 924.

20 **Section 46.** That section 1011.4 of the Fire Code is hereby enacted to read and be read  
21 as follows:

22 **Section 1011.4 Internally illuminated exit signs is replaced with the following:**

23 **1011.4 Internally illuminated exit signs.** Electrically powered exit signs shall be listed and  
24 labeled In accordance with UL 924 and shall be installed in accordance with the manufacturer's  
25 instructions and Chapter 27 of the International Building Code. Exit signs shall be illuminated at  
26 all times.

27 **Section 47.** That the Exceptions to section 1017.2 of the Fire Code are hereby  
28 renumbered and amended by adding the language underlined below and deleting the language  
29 stricken below to read and be read as follows:

30 **Exceptions:**

31 ~~31.~~ Non public aisles serving less than 50 people and not required to be handicap accessible  
32 shall not be less than 28 inches (711 mm) in width.

1 42. High-piled combustible storage areas shall comply with the applicable provisions of Chapter  
2 23 of the Fire Code.

3 **Section 48.** That section 1022.9 of the Fire Code is hereby amended by adding the  
4 language underlined below to read and be read as follows:

5 **1022.9 Smokeproof enclosures and pressurized stairways.** In buildings required to comply  
6 with Section 403 or 405 of the International Building Code, each of the exit enclosures serving a  
7 story with a floor surface located more than 75 feet (22 860 mm) above the lowest level of fire  
8 department vehicle access or more than 30 feet (9144 mm) below the finish floor of a level of exit  
9 discharge serving such stories shall be a smokeproof enclosure or pressurized stairway in  
10 accordance with Section 909.20.

11 **Section 49.** That section 1803.12.1 of the Fire Code is hereby enacted and added to the  
12 Fire Code to read and be read as follows:

13 **Section 1803.12.1 Where required is replaced with the following:**

14 **1803.12.1 Where required.** Emergency alarm systems shall be provided per Section 908.8 in  
15 the areas indicated in IFC Sections 1803.12.1.1 through 1803.12.1.3.

16 **Section 50.** That section 1803.12.1.3.1 of the Fire Code is hereby enacted and added to  
17 the Fire Code to read and be read as follows:

18 **Section 1803.12.1.3.1 Emergency alarm signage is added:**

19 **Section 1803.12.1.3.1 Emergency alarm signage.** Signage required by Section 908.8 shall  
20 state, "DO NOT ENTER WHEN LIGHT IS FLASHING – HAZARDOUS PRODUCTION  
21 MATERIAL LEAK DETECTED."

22 **Section 51.** That section 2206.7.3 of the Fire Code is hereby amended by adding the  
23 language underlined below to read and be read as follows:

24 **2206.7.3 Mounting of dispensers.** In new and existing motor fuel-dispensing facilities the  
25 dispensing devices, except those installed on top of a protected above-ground tank that qualifies  
26 as vehicle-impact resistant, shall be protected against physical damage by mounting on a  
27 concrete island 6 inches (152 mm) or more in height in accordance with IFC Section 312.  
28 Dispensing devices shall be installed and securely fastened to their mounting surface in  
29 accordance with the dispenser manufacturer's instructions. Dispensing devices installed indoors  
30 shall be located in an approved position where they cannot be struck by an out-of-control vehicle  
31 descending a ramp or other slope.

32 **Section 52.** That subsection 1 of section 2211.7.2.2 of the Fire Code is hereby enacted  
33 and added to the Fire Code to read and be read as follows:

34 **Section 2211.7.2.2 Operation – Subsection 1 is replaced with the following:**

1 1. Initiation of distinct audible and visual alarm signals in the repair garage in accordance with  
 2 Section 908.8. Signage required by Section 908.8 shall state, "DO NOT ENTER WHEN  
 3 LIGHT IS FLASHING – NONODORIZED FLAMMABLE GAS LEAK DETECTED."

4 **Section 53.** That section 2301.3 of the Fire Code is hereby amended by deleting the  
 5 language stricken below to read and be read as follows:

6 **2301.3 Construction documents.** A construction permit shall be required in accordance with  
 7 Section 105.7.13 for the installation or reconfiguration of all high-piled storage rack systems.  
 8 Installation plans and specifications shall be submitted for review and approval and shall include  
 9 the information specified in Appendix K. Approved plans shall be maintained on the premises in  
 10 an approved location and available to Fire Department personnel upon request.

11 **Section 54.** That Table 2306.2 of the Fire Code is hereby amended by adding the  
 12 language underlined below and deleting the language stricken below to read and be read as  
 13 follows:

14 **TABLE 2306.2**  
 15 **GENERAL FIRE PROTECTION AND LIFE SAFETY REQUIREMENTS**

COMMODITY CLASS	SIZE OF HIGH-PILED STORAGE AREA * (square feet)  (see Sections 2306.2 and 2306.4)	ALL STORAGE AREAS  (See Sections 2306, 2307, and 2308) <sup>b</sup>				SOLID-PILED STORAGE, SHELF STORAGE AND PALLETIZED STORAGE  (See Section 2307.3)		
		Automatic fire-extinguishing system  (see Section 2306.4)	Building Access  (see Section 2306.6)	Smoke and heat removal  (see Section 2306.7)	Draft curtains  (see Section 2306.7)	Maximum pile dimension <sup>c</sup>  (feet)	Maximum permissible storage height <sup>d</sup>  (feet)	Maximum pile volume  (cubic feet)
I-IV	0-500	Not Required <sub>a</sub>	Not Required <sub>e</sub>	Not Required	Not Required <sub>k</sub>	Not Required	Not Required	Not Required
	501-2,500	Not Required <sub>a</sub>	Not Required <sub>e</sub>	Not Required	Not Required <sub>k</sub>	100	40	100,000
	2,501-12,000	Yes	Not Required <sub>e</sub>	Not Required	Not Required <sub>k</sub>	100	40	400,000
	12,001-20,000	Yes	Yes	Yes <sup>j</sup>	Not Required <sub>k</sub>	100	40	400,000
	20,001-500,000	Yes	Yes	Yes <sup>j</sup>	Not Required <sub>k</sub>	100	40	400,000
	Greater than 500,000 <sup>g</sup>	Yes	Yes	Yes <sup>j</sup>	Not Required <sub>k</sub>	100	40	400,000
High hazard	0-500	Not Required <sub>a</sub>	Not Required <sub>e</sub>	Not Required	Not Required <sub>k</sub>	50	Not Required	Not Required
	501-2,500	Yes	Not Required <sub>e</sub>	Not Required	Not Required <sub>k</sub>	50	30	75,000
	2,501-300,000	Yes	Yes	<u>Yes</u> <sup>j</sup>	Not Required <sub>k</sub>	50	30	75,000
	300,001-500,000 <sub>g, h</sub>	Yes	Yes	<u>Yes</u> <sup>j</sup>	Not Required <sub>k</sub>	50	30	75000

16  
 17 For SI: 1 foot = 304.8mm, 1 cubic foot = 0.02832m<sup>3</sup>, 1 square foot = 0.0929m<sup>2</sup>

- 18 a. When automatic sprinklers are required for reasons other than those in Chapter 23, the portion of the sprinkler system  
 19 protecting the high-piled storage area shall be designed and installed in accordance with Sections 2307 and 2308.  
 20 b. For aisles, see Section 2306.9  
 21 c. Piles shall be separated by aisled complying with Section 2306.9

- 1 d. For storage in excess of the height indicated, special fire protection shall be provided in accordance with note g when  
2 required by the fire code official. See also Chapters 28 and 34 for special limitations for aerosols and flammable and  
3 combustible liquids, respectively.
- 4 e. Section 503 shall apply for fire apparatus access.
- 5 f. Intentionally deleted.
- 6 g. Special fire protection provisions including, but not limited to, fire protection of exposed steel columns; increased sprinkler  
7 density; additional in rack sprinklers, without associated reductions in ceiling sprinkler density; or additional fire  
8 department hose connections shall be provided when required by the fire code official.
- 9 h. High-piled storage areas shall not exceed 500,000 square feet. A 2-hour fire wall constructed in accordance with the  
10 *International Building Code* shall be used to divide high-piled storage exceeding 500,000 square feet in area.
- 11 i. Intentionally deleted.
- 12 j. Not required when storage areas are protected by early suppression fast response (ESFR) sprinkler systems installed in  
13 accordance with NFPA 13.
- 14 k. For requirements refer to Section 910.3.5 and NFPA 13
- 15

16 **Section 55.** That section 2404.20.3 of the Fire Code is hereby amended by adding the  
17 language underlined below and deleting the language stricken below to read and be read as  
18 follows:

19 **2404.20.3 Permit required.** Permits shall be required as set forth in Section 105.6.536.

20 **Section 56.** That section 2704.9 of the Fire Code is hereby amended by adding the  
21 language underlined below and deleting the language stricken below to read and be read as  
22 follows:

23 **Section 2704.9 Emergency alarm is replaced in its entirety with the following:**

24 ~~**2704.9 Emergency alarm.** In addition to the automatic hazard detection required by Section  
25 908, an approved manual emergency alarm system shall be provided in buildings, rooms or  
26 areas used for storage of hazardous materials. Emergency alarm-initiating devices shall be  
27 installed in an approved location adjacent to each interior exit or exit access door of storage  
28 buildings, rooms or areas. Activation of an emergency alarm-initiating device shall sound a local  
29 alarm to alert occupants of an emergency situation involving hazardous materials. The Denver  
30 Fire Department, based on the specific hazards associated with materials being stored, shall  
31 approve the type of alarm, including the location and type of alarm-initiating devices and  
32 notification appliances. The emergency alarm for hazardous materials shall be connected to the  
33 fire alarm system and shall be annunciated as a separate zone(s) in accordance with Section  
34 907.2.5.1. System components (equipment) shall be listed for the worst case weather and  
35 temperature ranges to which the equipment will be exposed.~~

36 An approved manual emergency alarm system shall be provided in buildings, rooms and areas  
37 used for the storage of hazardous materials in accordance this section and Section 908.8.

1 Signage required by Section 908.8 shall state, “DO NOT ENTER WHEN LIGHT IS FLASHING –  
2 HAZMAT EMERGENCY ALARM ACTIVATED.”

3 **Section 57.** That the title of section 3804 of the Fire Code is hereby amended by adding  
4 the language underlined below and deleting the language stricken below to read and be read as  
5 follows:

6 **SECTION 3804**

7 **LOCATION OF LP-GAS CONTAINERS**

8 **Section 58.** That the Exception in chapter 47 of the Fire Code is hereby amended by  
9 deleting the language stricken below to read and be read as follows:

10 **Exception:** The following NFPA documents are recommendations and do not serve as standards  
11 for the City and County of Denver.

12 ~~402 Aircraft Rescue and Fire Fighting Operations – 2008~~

13 ~~403 Aircraft Rescue and Fire Fighting Services at Airports – 2009~~

14 1000 Fire Service Professional Qualifications Accreditation and Certification System - 2006

15 1061 Public Safety Telecommunicator Qualifications - 2007

16 1201 Providing Emergency Services to the Public - 2004

17 1221 Communications, Emergency Services - 2007

18 1250 Emergency Service Organization Risk Management - 2004

19 1500 Fire Department Occupational Safety and Health Program - 2007

20 1561 Emergency Services Incident Management System - 2008

21 1581 Fire Department Infection Control Program - 2005

22 1582 Medical Programs for Fire Departments - 2007

23 1583 Health-Related Fitness for Fire Department Members - 2008

24 1710 Career Fire Departments, Organization and Deployment - 2004

25 **Section 59.** That section K101.1 of the Fire Code is hereby amended by adding the  
26 language underlined below and deleting the language stricken below to read and be read as  
27 follows:

28 **K101.1 Scope.** All documents submitted for approval of any permit application shall bear the  
29 stamp, signature and registration number of the responsible design professional in accordance  
30 with the requirements below or as permitted by Denver Fire Department policy. In all cases,  
31 acceptance of any permit application shall be subject to the discretion of the fire code official for  
32 further review as ~~deemed~~ necessary.

33 **Section 60.** That section K102 of the Fire Code is hereby enacted and added to the Fire  
34 Code to read and be read as follows:

1 **K102 – Reserved.**

2 **Section 61.** That subsection 1 of section K103.1 of the Fire Code is hereby amended by  
3 adding the language underlined below to read and be read as follows:

- 4 1. Two (2) complete sets of working plans shall be submitted in accordance with IFC Section  
5 903 and NFPA 13, Chapter 22. Shop drawings shall identify the flow and reduced pressures  
6 required by Section 903.3.1 used in the hydraulic calculations. Drawings shall be stamped  
7 and signed by a Colorado licensed professional engineer.

8 **Section 62.** That sections K103.2 and K103.2.1 of the Fire Code are hereby amended  
9 by adding the language underlined below and deleting the language stricken below to read and  
10 be read as follows:

11 **K103.2 Fire Department sprinkler system "walk-through" and "quick permit" procedures.**

12 Review of the following permit applications shall be provided for the modification of existing wet  
13 fire sprinkler systems only. The maximum number of permits reviewed or issued for any single  
14 applicant shall be limited to ~~one (1)~~ two (2) per day. Where shop drawings are required, they  
15 shall be ~~prepared~~ stamped and signed by a Colorado licensed professional engineer responsible  
16 for the design and its compliance to the relevant codes adopted by the City and County of  
17 Denver.

18 ~~**K103.2.1 Quick permits.** The following projects may be permitted through the "quick permits"~~  
19 ~~process without submitting shop drawings.~~

- 20 ~~—1. Relocation of 20 or fewer sprinklers in light hazard occupancies only.~~  
21 ~~2. These 20 sprinklers may include up to a maximum of 5 added sprinklers.~~  
22 ~~3. Only one quick permit will be issued to a single contractor per floor of a single building in a~~  
23 ~~60-day period.~~

24 **Section 63.** That section K103.3 of the Fire Code is hereby amended by adding the  
25 language underlined below to read and be read as follows:

26 **K103.3 Fire Department fire alarm system shop drawings submittal.** Where shop drawings  
27 are required, they shall be stamped and signed by a Colorado licensed professional engineer.

28 Two (2) complete sets of shop drawings shall be submitted for permit application with the  
29 following information:

30 **Section 64.** That section K103.4 of the Fire Code is hereby amended by adding the  
31 language underlined below and deleting the language stricken below to read and be read as  
32 follows:

33 **K103.4 Fire Department walk-through plans procedure (fire alarm).** A permit may be issued  
34 on walk-through for fire alarm "conduit only rough-in" without approved submitted plans. The

1 contractor shall be responsible for all changes required by the subsequent plan review. A  
2 conduit only rough-in permit may be issued to a contractor with an electrical or electrical signal  
3 contractor's license in accordance with this section. Only back boxes, conduit stubs and fire  
4 alarm raceway systems are permitted for installation with a conduit only rough-in permit. Conduit  
5 only rough-in permits are subject to a minimum \$100.00 Fire Department review fee (separate  
6 payment is required). Raceway systems shall only be installed by State and City licensed  
7 electrical contractors who are also licensed by the Denver Fire Department.

8 **Section 65.** That subsection 1.a.4 of section K103.4 of the Fire Code is hereby amended  
9 by adding the language underlined below and deleting the language stricken below to read and  
10 be read as follows:

11 4. Emergency fire alarm panel replacement for an existing system. An emergency panel  
12 replacement permit shall be acquired within one (1) normal business day of the  
13 commencement of work. The proposed panel shall be compatible with the fire alarm system.  
14 A complete application per Section 907.1.1 shall be submitted within ~~two weeks~~ ten (10)  
15 normal business days of the commencement of work ~~emergency panel replacement permit.~~  
16 The emergency replacement panel is subsequently subject to the requirements for a planned  
17 replacement panel.

18 **Section 66.** That subsection 1.b.2 of section K103.4 of the Fire Code is hereby amended  
19 by adding the language underlined below and deleting the language stricken below to read and  
20 be read as follows:

21 2. The maximum number of permit applications eligible for walk-through review shall be limited  
22 to ~~one (1)~~ two (2) per day per applicant.

23 **Section 67.** That section K103.4.1 of the Fire Code is hereby repealed and deleted in its  
24 entirety.

25 **Section 68.** That section K103.6 of the Fire Code is hereby amended by adding the  
26 language underlined below and deleting the language stricken below to read and be read as  
27 follows:

28 **K103.6 Shop drawing submittals (deferred submittal) for smoke control systems.** Two (2)  
29 complete sets of shop drawings, stamped and signed by a Colorado licensed professional  
30 engineer, for permit application with the following information:

31 **Section 69.** That the exception to subsection 1 of section 133.1 of the Denver  
32 Amendments to the 2009 International Building Code of the City and County of Denver  
33 (hereinafter "Building Code") is hereby repealed and deleted in its entirety.

1 **Section 70.** That Table 705.8 of the Building Code is hereby amended by adding the  
 2 language underlined below to read and be read as follows:

3 **TABLE 705.8**

4 **MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND**  
 5 **DEGREE OF OPENING PROTECTION**

FIRE SEPARATION DISTANCE (feet)	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA <sup>a</sup>
0 to less than 3 <sup>b, c</sup>	Unprotected, Nonsprinklered (UP, NS)	Not Permitted
	Unprotected, Sprinklered (UP, S) <sup>i</sup>	Not Permitted
	Protected (P)	Not Permitted
3 to less than 5 <sup>d, e</sup>	Unprotected, Nonsprinklered (UP, NS)	Not Permitted
	Unprotected, Sprinklered (UP, S) <sup>i</sup>	15%
	Protected (P)	15%
5 to less than 10 <sup>e, f</sup>	Unprotected, Nonsprinklered (UP, NS)	10% <sup>h</sup>
	Unprotected, Sprinklered (UP, S) <sup>i</sup>	25%
	Protected, <u>Nonsprinklered</u> (P, <u>NS</u> )	25%
	<u>Protected, Sprinklered</u> (P, S)	<u>25%</u> <sup>j</sup>
10 to less than 15 <sup>e, f, g</sup>	Unprotected, Nonsprinklered (UP, NS)	15% <sup>h</sup>
	Unprotected, Sprinklered (UP, S) <sup>i</sup>	45%
	Protected, <u>Nonsprinklered</u> (P, <u>NS</u> )	45%
	<u>Protected, Sprinklered</u> (P, S)	<u>45%</u> <sup>j</sup>

15 to less than 20 <sup>f, g</sup>	Unprotected, Nonsprinklered (UP, NS)	25%
	Unprotected, Sprinklered (UP, S) <sup>i</sup>	75%
	Protected (P)	75%
20 to less than 25 <sup>f, g</sup>	Unprotected, Nonsprinklered (UP, NS)	45%
	Unprotected, Sprinklered (UP, S) <sup>i</sup>	No Limit
	Protected (P)	No Limit
25 to less than 30 <sup>f, g</sup>	Unprotected, Nonsprinklered (UP, NS)	70%
	Unprotected, Sprinklered (UP, S) <sup>i</sup>	No Limit
	Protected (P)	No Limit
30 or greater	Unprotected, Nonsprinklered (UP, NS)	No Limit
	Unprotected, Sprinklered (UP, S) <sup>i</sup>	Not Required
	Protected (P)	Not Required

1 For SI: 1 foot = 304.8 mm.

2 UP, NS = Unprotected openings in buildings not equipped throughout with an automatic sprinkler system in  
3 accordance with Section 903.3.1.1.

4 UP, S = Unprotected openings in buildings equipped throughout with an automatic sprinkler system in  
5 accordance with Section 903.3.1.1.

6 P = Openings protected with an opening protective assembly in accordance with Section 705.8.2.

7 P, NS = Openings protected with an opening protective assembly in accordance with Section 705.8 in buildings  
8 not equipped throughout with an automatic sprinkler system in accordance with Section 903.1.1.

9 P, S = Openings protected with an opening protective assembly in accordance with Section 705.8 in buildings  
10 equipped throughout with an automatic sprinkler system in accordance with Section 903.1.1.

11 a. Values indicated are the percentage of the area of the exterior wall, per story.

12 b. For the requirements for fire walls of buildings with differing heights, see Section 706.6.1.

13 c. For openings in a fire wall for buildings on the same lot, see Section 706.8.

14 d. The maximum percentage of unprotected and protected openings shall be 25 percent for Group R-3  
15 occupancies.

16 e. Unprotected openings shall not be permitted for openings with a fire separation distance of less than 15 feet for  
17 Group H-2 and H-3 occupancies.

18 f. The area of unprotected and protected openings shall not be limited for Group R-3 occupancies, with a fire  
19 separation distance of 5 feet or greater.

20 g. The area of openings in an open parking structure with a fire separation distance of 10 feet or greater shall not  
21 be limited.

- 1 h. Includes buildings accessory to Group R-3.  
2 i. Not applicable to Group H-1, H-2 and H-3 occupancies.  
3 j. Allowable area may be increased to 50% where openings are protected with water curtains designed to  
4 distribute 3 gpm per linear foot of wall opening with sprinklers placed at the ceiling 6 to 12 inches from the wall  
5 and 6 feet on center; see NFPA 13 "Water Curtains" for design requirements.  
6

7 **Section 71.** That Chapter 9 of the Denver Building Code is amended by adding the  
8 language underlined below and deleting the language stricken below to read and be read as  
9 follows:

10 **Chapter 9 is replaced in its entirety with Chapter 9 of the International Fire Code as**  
11 **amended.**

12 ~~Other Amendments to this chapter are located in Chapter 9 of the Amendments of the~~  
13 ~~International Fire Code.~~

14 **SECTION 909**  
15 **SMOKE CONTROL SYSTEMS**

16 ~~Section 909.20 Smokeproof enclosures is amended by replacing the first paragraph with~~  
17 ~~the following:~~

18 ~~Where required by Section 1022.9, a smokeproof enclosure shall be constructed in accordance~~  
19 ~~with this section.~~

20 ~~A smokeproof enclosure shall consist of an enclosed interior exit stair that conforms to Section~~  
21 ~~1022.1 with either a natural ventilated outside balcony, or be pressurized in accordance with~~  
22 ~~IBC Section 909.21. Where access to the roof is required by the IFC, such access shall be from~~  
23 ~~the smokeproof enclosure where a smokeproof enclosure is required.~~

24 ~~Section 909.20.1 Access is deleted in its entirety.~~

25 ~~Section 909.20.2 Construction is amended by replacing the first paragraph with the~~  
26 ~~following:~~

27 ~~Smokeproof vertical exit enclosures shall be separated from the remainder of the the building by~~  
28 ~~not less than a 2-hour fire barriers constructed in accordance with Section 707 or horizontal~~  
29 ~~assemblies constructed in accordance with Section 712, or both. Openings are not permitted~~  
30 ~~other than the required means of egress doors. The open exterior balcony shall be constructed~~  
31 ~~in accordance with the fire-resistance-rating requirements for floor assemblies.~~

32 ~~Section 909.20.2.1 Door closers is amended by replacing the first paragraph with the~~  
33 ~~following:~~

34 ~~Doors in a smokeproof enclosure shall be self- or automatic closing by actuation of a smoke~~  
35 ~~detector installed at the floor-side entrance to the smokeproof enclosure. The actuation of the~~  
36 ~~smoke detector on any door shall activate the closing devices on all doors in the smokeproof~~  
37 ~~enclosure at all levels. Smoke detectors shall be installed in accordance with Section 907.3.~~

38 ~~Section 909.20.4 Mechanical ventilation alternative and its subsections are deleted in their~~  
39 ~~entirety.~~

40 ~~Section 909.20.5 Stair pressurization alternative is amended by replacing the first~~  
41 ~~paragraph with the following:~~

1  
2 Stairway pressurization shall comply with IFCA Section 909.21.4.

3  
4 ~~Section 909.20.6 Ventilating equipment and its subsections are deleted in their entirety.~~

5 Section 72. That section 1007.8.1 of the Building Code is amended by adding the  
6 language underlined and deleting the language stricken to read and be read as follows:

7 **Section 1007.8.1 System requirements is replaced in its entirety with the following:**

8 **1007.8.1 System requirements.** System requirements shall be as specified in Section 1007.8.1  
9 of the Denver Amendments to the IFC.

10 ~~1007.8.1 System requirements.~~ Two way communication systems shall provide  
11 ~~communication between each required location and a master control station.~~

12 ~~\_\_\_\_\_ A master control station shall be installed in the Fire Command Center (FCC) or Fire~~  
13 ~~Command Room (FCR) if either is provided, and one additional master control station may be~~  
14 ~~installed at an approved location (see IFCA Sections 508.1 and 508.2). Required master control~~  
15 ~~station features shall be provided at all master control stations. Required master control station~~  
16 ~~functionality shall be provided simultaneously at all master control stations. The master control~~  
17 ~~station in the FCC or FCR shall override the master control station at the additional approved~~  
18 ~~location.~~

19 ~~\_\_\_\_\_ A call for assistance shall be directed to the master control station and answered by~~  
20 ~~authorized personnel who can take appropriate action. It shall not be transmitted to an~~  
21 ~~automated answering system. When the approved location is not continuously staffed by such~~  
22 ~~authorized personnel, the call shall be redirected automatically within 30 seconds to a listed~~  
23 ~~central supervising station where monitoring personnel shall initiate the appropriate response, or~~  
24 ~~to 911 if the building does not have a monitored fire alarm system.~~

25 ~~\_\_\_\_\_ The means of two way communication shall override communication outside the building.~~  
26 ~~The means of two way communication shall be discontinued only when the authorized or~~  
27 ~~emergency personnel terminate the call.~~

28 ~~\_\_\_\_\_ The master control station shall be capable of receiving and queuing calls from all~~  
29 ~~required locations. Authorized personnel shall be provided with the capability of placing calls on~~  
30 ~~hold without disconnecting them, to selectively reconnect to any held call, and to selectively~~  
31 ~~initiate contact with any required location with calls on hold.~~

32 ~~\_\_\_\_\_ The means of two way communication shall be monitored for integrity and annunciated~~  
33 ~~per NFPA 72 (see 2007 NFPA 72 Section 4.4.7; the means of two way communication shall not~~  
34 ~~be considered "supplementary."~~

35 ~~\_\_\_\_\_ The means of two way communication shall comply with the following requirements:~~

- 1       1. ~~The user interface at the required locations must be accessible and usable by people~~  
2       ~~with disabilities. Clearance, location, protrusion, labeling, signage and operability of~~  
3       ~~the user interface shall comply with ANSI A117.1.~~
- 4       2. ~~A push button to activate the means of two way communication shall be provided at~~  
5       ~~the required location. The button shall be visible and permanently identified as "HELP"~~  
6       ~~on or adjacent to the button.~~
- 7       3. ~~Tactile and Braille operating instructions shall be incorporated with or adjacent to the~~  
8       ~~"HELP" button.~~
- 9       4. ~~When the button is pushed, the means of two way communication shall initiate a call~~  
10      ~~for assistance at the master control station. A visual indication shall be provided on or~~  
11      ~~adjacent to the "HELP" button, and an audible signal shall be provided to acknowledge~~  
12      ~~successful initiation. The visual indication shall remain activated until two way voice~~  
13      ~~communication is established.~~
- 14     5. ~~The means of two way communication shall automatically provide at the master~~  
15      ~~control station audible and visual indication assistance is required, and identify the~~  
16      ~~location within the building of the actuated user interface.~~
- 17     6. ~~Audible and visual indications shall be provided at the required location to~~  
18      ~~acknowledge two way communication has been established. The visual indicator shall~~  
19      ~~be located on or adjacent to the "HELP" button. After the call acknowledgement~~  
20      ~~signals are sent, two way voice communication shall be established without any~~  
21      ~~intentional delay or required intervention by a person at the required location. The~~  
22      ~~visual indication shall be deactivated only when the two way voice communication is~~  
23      ~~terminated.~~
- 24     7. ~~The means of two way communication shall be connected to a source of, or~~  
25      ~~automatically transferred to an alternate (standby, emergency, etc.) source of power~~  
26      ~~capable of providing for the required functionality for a minimum of four hours when~~  
27      ~~the normal power supply fails.~~

28       **Section 73.** That section L101.4, Appendix L of the Building Code is hereby amended by  
29 adding the language underlined below and deleting the language stricken below to read and be  
30 read as follows:

31 **L101.4 Modified IBC provisions.** The following IBC sections have been modified and are  
32 superseded by the provisions of this appendix:

33       Section ~~403.12~~ 403.5.3 Stairway door operation.

34       Section ~~1008.1.3.4~~ 1008.1.4.4 Access-controlled egress doors.

1 Section ~~1008.1.8.6~~ 1008.1.9.7 Delayed egress locks.

2 Section ~~1008.1.8.7~~ 1008.1.9.10 Stairway doors.

3 Section 1008.1.9.8 Electromagnetically locked egress doors.

4 **Section 74.** That section L106.1.3, Appendix L of the Building Code is hereby amended  
5 by adding the language underlined below and deleting the language stricken below to read and  
6 be read as follows:

7 **L106.1.3 Dead-end corridors.** Securing of the lobby cannot result in dead-end exit corridors  
8 with lengths that exceed the provisions of IBC Section ~~4047~~ 1018.4.

9 **Section 75.** That Exception 6.b) to section L106.1.7.6.b), Appendix L of the Building  
10 Code is hereby amended by adding the language underlined below and deleting the language  
11 stricken below to read and be read as follows:

12 b) Door and Door Hardware Requirements. All doors opening into elevator  
13 lobby refuge areas shall be 20-minute fire-protection rated assemblies as  
14 required by DBC Section ~~403.9.4~~ 403.5.7. All hardware necessary to  
15 maintain the fire rating of the door shall be listed and approved fire door  
16 hardware. All hardware installed on the rated door and frame assembly  
17 shall be compatible with the manner in which the door was manufactured  
18 and shall not reduce the fire rating of the assembly. Field or other  
19 modification of rated doors and frames is prohibited unless approved in  
20 writing by the agency which labeled the fire-rated assembly.

21 **Section 76.** That section L107.1.1.1 and subsection 1 thereof, Appendix L of the Building  
22 Code are hereby amended by adding the language underlined below and deleting the language  
23 stricken below to read and be read as follows:

24 **L107.1.1.1 Fire rating and latching requirements of door hardware.** All doors into exit  
25 enclosures shall be fire-rated assemblies, as required by IBC Section ~~4020~~ 1022. In order  
26 to maintain the fire rating of the door assembly, all hardware installed on enclosure doors  
27 shall meet the following criteria:

28 1 Latching Requirements. The door shall remain latched at all times that the door is  
29 in a closed position as required by IBC Section ~~715.4.7.1~~ 715.4.8.1. Electric locks  
30 or strikes that unlatch the door upon activation of the fire alarm system or loss of  
31 power are unacceptable.

32 **Section 77.** That subsections 4. and 5. of section L107.1.4, Appendix L of the Building

1 Code are hereby amended by adding the language underlined below and deleting the language  
2 stricken below to read and be read as follows:

3 4. **Electric strikes.** Fail-safe electric strikes are prohibited on doors into exit enclosures.  
4 The latch point on these doors must be maintained and a fail-safe electric strike does  
5 not maintain the latch point when power is lost to the strike. Fail-secure electric strikes  
6 that are ~~not~~ listed for use on a fire rated door assembly are also prohibited on doors  
7 into exit enclosures. ~~Except as allowed by Section L107.1.3.2.2~~ L107.1.5.2.1.

8 5. **After hours locks.** Locking devices that are activated after normal business hours or  
9 during other timed periods and restrict access into the exit enclosure.

10 **Section 78.** That subsections 3. and 5. of section L107.1.5.1.1, Appendix L of the  
11 Building Code are hereby amended by adding the language underlined below and deleting the  
12 language stricken below to read and be read as follows

13 **L107.1.5.1.1 New door locks which prevent access out of exit enclosures.** All new  
14 lock installations in high rise buildings, which prevent access out of an exit enclosure,  
15 shall satisfy the following requirements:

16 3. Fifth floor rule. Where doors are locked for more than five consecutive floors, a  
17 telephone or other approved two-way communication system shall be provided.  
18 The travel distance between each phone or communication system shall not  
19 exceed five floors as required by IBC Section ~~403.42.4~~ 403.5.3.1.

20 5. Signage. All locked exit enclosure doors shall have the applicable signage required  
21 by Section L107.1.5.1.1 and IBC Section ~~4020.4.6~~ 1022.8 and comply with  
22 ICC/ANSI 117.1 (2003) Sections 703 and 704. Signage shall be provided as  
23 follows:

24 COMMITTEE APPROVAL DATE: \_\_\_\_\_.  
25 MAYOR-COUNCIL DATE: \_\_\_\_\_.  
26 PASSED BY THE COUNCIL \_\_\_\_\_ 2012  
27 \_\_\_\_\_ - PRESIDENT  
28 APPROVED: \_\_\_\_\_ - MAYOR \_\_\_\_\_ 2012  
29 ATTEST: \_\_\_\_\_ - CLERK AND RECORDER,  
30 EX-OFFICIO CLERK OF THE  
31 CITY AND COUNTY OF DENVER  
32  
33 NOTICE PUBLISHED IN THE DAILY JOURNAL \_\_\_\_\_ 2012; \_\_\_\_\_ 2012  
34 PREPARED BY: Kerry A. Buckey, Assistant City Attorney \_\_\_\_\_ 2/6/2012

1 Pursuant to section 13-12, D.R.M.C., this proposed ordinance has been reviewed by the office of  
2 the City Attorney. We find no irregularity as to form, and have no legal objection to the proposed  
3 ordinance. The proposed ordinance is not submitted to the City Council for approval pursuant to  
4 § 3.2.6 of the Charter.

5 \_\_\_\_\_, City Attorney

6 BY: \_\_\_\_\_, \_\_\_\_\_ City Attorney