

ORDINANCE NO. 4189

AN ORDINANCE OF THE CITY OF HUNTINGTON BEACH AMENDING
CHAPTER 17.56 OF THE HUNTINGTON BEACH MUNICIPAL CODE
ADOPTING THE CALIFORNIA FIRE CODE

WHEREAS, Section 17958.5 of the California *Health and Safety Code* permits the City to make changes or modifications to the California Fire Code as such changes or modifications are reasonably necessary because of local climatic, geographic or topographical conditions; and

The Fire Chief of the City of Huntington Beach has recommended that the California Fire Code be adopted by the City with certain changes or modifications which are necessary to meet local climatic, geographical or topographical conditions.

The City Council of the City of Huntington Beach does hereby find and ordain as follows:

SECTION 1. Findings. The following findings are hereby adopted in support of Chapter 17.56 of the Huntington Beach Municipal Code:

The City of Huntington Beach is aware that due to climatic, geological and topographical conditions, there is potential for disasters and major fires within the City. The applicable finding for each amendment, addition, or deletion from the California Fire Code (CFC) is listed in Section 2 of this ordinance.

The basis of conditions are found in the Local Hazard Mitigation Plan (LHMP) (2017). The following conditions will be considered:

Hazard	Threat Level
Climatic	
Severe Weather	Medium
Drought	High
Flood	Medium
Geological	
Coastal hazards	Medium
Dam failure	Medium
Geologic hazards	Medium
Seismic hazards	High
Topographical	
Human hazards	Medium

CLIMATIC CONDITIONS

Severe Weather

- Hot, dry, high velocity winds (called Santa Ana winds) are common in the area. These winds reduce the relative humidity causing severe drying of the vegetation and common building materials. These dry conditions predispose the area to large destructive fires (conflagration).

Drought

- The local climate is currently in a drought condition. Dry climatic conditions can create the potential for the rapid spread of fire in both vegetation and structures. The addition of fire protection systems will supplement the Fire Department response by providing immediate protection for the building occupants and by containing or controlling the spread of fire. Fire sprinkler systems also provide an efficient use of water for the control and containment of fires.

Flood

- The southern boundary of the City is along the Pacific Ocean. Winter storms and tropical storms come into the City from the ocean. These storms can create high winds and large ocean waves, which can cause flooding in large areas of the city. Along part of the eastern boundary of the City is the Santa Ana River. This river originates in the San Bernardino Mountains and flows through many communities until it terminates in the ocean at the Huntington Beach/Newport Beach border. The river is contained in a man-made channel. Heavy rainfall and urban runoff has potential to cause flooding in the flood plain due to the river and/or its tributaries.

GEOLOGICAL CONDITIONS

Coastal hazards

- According to the City Hazard Mitigation Plan (2017), the City has large portions in the tsunami hazard zone subject to tsunami inundation, areas on land that can become quickly flooded when there is a tsunami. These flood conditions would impact the response and activity level of the Fire Department.

Dam Failure

- There are no dams in Huntington Beach. However, the city is on the floodplain on the Santa Ana River. There are two dams, Prado Dam and Seven Oaks Dam, which are located upstream of Huntington Beach on the Santa Ana River. Failure of either dam could cause damage in Huntington Beach. The primary threat to Huntington Beach is from the failure of Prado Dam. If the dam were to experience a partial or complete failure

event, the resulting flood would likely overtop the banks of the Santa Ana River. Depending on the amount of water released, the failure of Prado Dam could result in floodwaters inundating all of Huntington Beach except for the area roughly bordered by Beach Boulevard, Talbert Avenue, Edwards Street, and the shore.

Geologic hazards

- Much of the City is deemed to be a methane district due to the natural detritus of organic matter in the Huntington Beach Oil Field, which was first discovered in 1920 and from which there was approximately 2.4 million barrels of oil and approximately 1.1 million cubic feet of gas produced in 2015. This hazard presents a unique threat to the City and has the potential to cause fire, or environmental emergencies.

Seismic hazards

- The City of Huntington Beach is located in an area of high seismic activity. The Newport-Inglewood Fault runs through the City, which is the largest of several faults. Studies reveal that this fault has the probability of generating a 6.6 magnitude earthquake. Because of the population density and the number of structures in the City, the risk of life loss and property damage due to earthquake activity is considerable.

TOPOGRAPHICAL CONDITIONS

Human hazards

- The City has a population of 200,641 (US Census 2018) people in 27 square miles. The daytime population increases significantly in the summer due to beach related activities; the City hosts more than 16 million beach visitors each year.
- Heavy traffic is common on the City streets and roadways. There are two state highways (Beach Boulevard with 60,000 to 72,000 vehicles/day and Pacific Coast Highway with 43,000 vehicles/day) and a major freeway (I-405 with 280,000 vehicles/day) routed through the City.
- Major earthquakes are always accompanied by the disruption of traffic flow. Fires caused by damaged flammable gas piping; ruptured fuel storage tanks and electrical arcing are probable. The Fire Department responds to fires and other emergencies may be compromised. The presence of built-in fire protection systems and regulation of tank installations provide an added degree of protection for the community.
- There are also numerous narrow alleys and cul-de-sacs present. The ability for fire apparatus access is critical for timely emergency response. The regulation of these access routes is necessary to help provide reasonable response times.

- The southeast border of the city is the Pacific Ocean, which prevents mutual aid responses from 1/3 of the perimeter of the city.

#	Section	Severe Weather	Drought	Flood	Coastal Hazards	Dam Failure	Geologic hazards	Seismic hazards	Human hazards	Amendment Type	
		Climatic			Geologic				Topographical	Amended	Added
Chapter 1 Scope and Administration											
1	IFC Chapter 1 sections not adopted by CA	Not a building code									X
2	101.1	Not a building code								X	
3	102.7	Not a building code								X	
4	105.4.2.1	X	X	X	X	X	X	X	X	X	
5	105.6.30	Not a building code								X	
6	108.1	Not a building code								X	
7	110.4	Not a building code								X	
Chapter 2 Definitions											
8	202 – Containment Vessel								X	X	
Chapter 3 General Requirements											
9	IFC Chapter 3 sections not adopted by CA, except Section 301.8.4, Open-flame cooking devices	Not a building code									X
10	321	Not a building code									X
11	322	Not a building code									X
Chapter 5 Fire Service Features											
12	503.1.1	X	X	X						X	
13	503.2	X	X	X						X	
14	503.2.1	X	X	X		X		X		X	
15	503.2.3	X	X	X		X		X		X	
16	503.2.4	X	X	X		X		X		X	

#	Section	Severe Weather	Drought	Flood	Coastal Hazards	Dam Failure	Geologic hazards	Seismic hazards	Human hazards	Amendment Type	
		Climatic			Geologic				Topographical	Amended	Added
17	503.2.5	X	X	X		X		X		X	
18	503.6	X	X	X		X		X		X	
19	505.1	X	X	X		X		X		X	
20	506.1	X	X	X		X		X		X	
21	507.1								X	X	
22	507.5	X	X	X		X		X		X	
23	507.5.7	X	X	X		X		X		X	
Chapter 9 Fire Protection Systems											
24	901.6.3	X	X	X		X		X		X	
25	903.2	X	X	X		X		X		X	
26	903.2.4	X	X	X		X		X		X	
27	903.3.1.1.1	X	X	X		X		X		X	
28	903.3.5.3	X	X	X		X		X			X
29	903.4	X	X	X		X		X		X	
30	907.1	X	X	X		X		X		X	
31	914.2.1								X	X	
32	914.3.1								X	X	
33	914.6.1	X	X	X		X		X	X	X	
34	916.12						X				X
Chapter 11 Construction Requirements for Existing Buildings											
35	IFC Chapter 11 sections not adopted by CA	X	X	X	X	X	X	X	X		X
36	1103.5	X	X	X		X		X		X	
37	1103.5.5	X	X	X		X		X			X
38	1103.7	X	X	X		X		X		X	
39	1103.7.10	X	X	X		X		X		X	
Chapter 23 Motor Fuel Repair Garage											
40	2306.2.3								X	X	
41	2306.2.4.1							X		X	

#	Section	Severe Weather	Drought	Flood	Coastal Hazards	Dam Failure	Geologic hazards	Seismic hazards	Human hazards	Amendment Type	
		Climatic			Geologic				Topographical	Amended	Added
42	2306.2.4.2							X	X	X	
43	2306.2.6							X	X	X	
Chapter 33 Fire Safety During Construction and Demolition											
44	3310.1	X	X	X		X		X		X	
45	3312.1	X	X	X		X		X		X	
46	3313.1	X	X	X		X		X		X	
47	3314.1.1	X	X	X		X		X			X
48	3318	X	X	X		X		X			X
Chapter 50 Hazardous Materials – General Provisions											
49	5003.3.1.4						X	X		X	
Chapter 57 Flammable and Combustible Liquids											
50	5704.2.9.6.1						X		X	X	
51	5704.2.11.1							X		X	
52	5704.2.13.1.4							X		X	
53	5706.2.4.4						X			X	
54	5706.3						X			X	
Chapter 58 Flammable Gases and Flammable Cryogenic Fluid											
55	5801.1.1.						X				X
56	5806.2							X			X
Chapter 61 Liquefied Petroleum Gases											
57	6104.2							X	X	X	
Chapter 80 Reference Standards											
<i>NFPA 13-16 Standard for the Installation of Sprinkler Systems, as amended</i>											
58	NFPA 13 - 6.7.2	X	X	X				X		X	
59	NFPA 13 - 8.17.1.1.1	X	X	X				X		X	
60	NFPA 13 - 22.1.3 (43)	X	X	X				X		X	
<i>NFPA 13D-16 Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, as amended</i>											
61	NFPA 13D - 4.7	X	X	X				X			X
62	NFPA 13D- 7.1.2	X	X	X				X		X	

#	Section	Severe Weather	Drought	Flood	Coastal Hazards	Dam Failure	Geologic hazards	Seismic hazards	Human hazards	Amendment Type	
		Climatic			Geologic				Topographical	Amended	Added
63	NFPA 13D- 7.3	X	X	X				X		X	
64	NFPA 13D- 7.3.1	X	X	X				X		X	
65	NFPA 13D- 7.6	X	X	X				X		X	
<i>NFPA 13R-16</i>											
66	NFPA 13R- 6.16.1	X	X	X				X		X	
<i>NFPA 14-13 Installation of Standpipe and Hose Systems, as amended</i>											
67	NFPA 14- 6.4.5.4.1	X	X					X	X	X	
<i>NFPA 24-16 Installation of Private Fire Service Mains and Their Appurtenances, as amended</i>											
68	NFPA 24- 5.9.1.2	X	X					X	X	X	
69	NFPA 24- 5.9.1.2.1	X	X					X	X		X
70	NFPA 24- 6.2.1.1	X	X					X	X		X
71	NFPA 24- 6.3.3	X	X					X	X		X
72	NFPA 24- 10.1.1.3.2						X				X
73	NFPA 24- 10.4.1.1						X				X
74	NFPA 24- 10.4.1.4						X				X
75	NFPA 24- 10.4.3.1						X			X	
<i>NFPA 72-16 National Fire Alarm and Signaling Code, as amended</i>											
76	NFPA 72- 14.2.2.2.3	X	X	X	X	X	X	X	X	X	
Appendix B Fire Flow Requirements for Buildings											
77	Appendix B – B105.1	X	X	X	X	X	X	X	X	X	

SECTION 2. The findings shall not be codified.

SECTION 3. Chapter 17.56 of the Huntington Beach Municipal Code is repealed in its entirety and replaced as follows.

17.56.010 Adoption An ordinance of the City of Huntington adopting the 2018 edition of the *International Fire Code*, regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises in the City of Huntington Beach; providing for the issuance of permits and collection of fees therefor; repealing Ordinance No. 4123 of the City of Huntington Beach and all other ordinances or parts of laws in conflict therewith.

Section 1. That the California Fire Code 2019 Edition, three (3) copies of which are on file in the office of the City Clerk of the City of Huntington Beach including all omissions in Chapter 1, Division II, Chapter 3 except Section 301.8.4, Chapter 11, Chapter 25, Chapter 26, and Appendix Chapters E, F, G, and H (see *California Fire Code* Section 101.2.1, 2019 edition), as published by the International Code Council, be and is hereby adopted as the Fire Code of the City of Huntington Beach, in the State of California regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises as herein provided; providing for the issuance of permits and collection of fees therefor; and each and all of the regulations, provisions, penalties, conditions and terms of said Fire Code on file in the office of the City of Huntington Beach are hereby referred to, adopted, and made a part hereof, as if fully set out in this legislation, with the additions, insertions, deletions and changes, if any, prescribed in Section 2 of this Ordinance.

Section 2. That Ordinance No. 4123 of City of Huntington Beach entitled An Ordinance of the City of Huntington Beach Amending Chapter 17.56 of the Huntington Beach Municipal Code Adopting the California Fire Code and all other ordinances or parts of laws in conflict herewith are hereby repealed.

Section 3. That if any section, subsection, sentence, clause or phrase of this legislation is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this law, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional.

Section 4. That nothing in this legislation or in the Fire Code hereby adopted shall be construed to affect any suit or proceeding impending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed as cited in Section 4 of this law; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this legislation.

Section 6. That the City Clerk is hereby ordered and directed to cause this legislation to be published.

17.56.020 Definition. Wherever the word "jurisdiction" is used in the Fire Code as a reference to a location, it shall mean the City of Huntington Beach.

17.56.030 CFC Section [A] 101.1 Title, Amended. These regulations shall be known as the City of Huntington Beach Fire Code (HBFC), hereinafter referred to as "this code."

17.56.040 CFC Section [A] 102.7 Referenced codes and standards, Amended. The codes and standards referenced in this code shall be those that are listed in Chapter 80 as well as City Specifications as signed by the Fire Chief, and such codes and standards shall be considered to be part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

17.56.050 CFC Section [A] 105.4.2.1 Fire Protection system shop drawings, Amended. Shop drawings for the fire protection system(s) shall be submitted to indicate compliance with this code and the construction documents, and shall be approved prior to the start of installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9. Shop drawings are required for any fire protection system that is to be installed or modified, regardless of the number of sprinkler heads, alarm devices or nozzles involved, or the dollar value of the work.

17.56.060 CFC Section 105.6.30 Mobile food preparation vehicles, Amended. A permit is required for mobile food preparation vehicles that are part of a Huntington Beach permitted special or specific event equipped with appliances that produce smoke or grease-laden vapors.

17.56.070 CFC Section [A] 108.1 Board of appeals established, Amended. In order to hear and decide appeals of orders, decisions or determinations made by the fire code official relative to the application and interpretation of this code, there may be created a board of appeals. The board of appeals shall be appointed by the City Council and shall hold office at its pleasure. The fire code official shall be an ex officio member of said board but shall have no vote on any matter before the board. The board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the fire code official.

17.56.080 CFC Section [A] 110.4 Violation Penalties Amended. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code shall be guilty of a misdemeanor as prescribed in Chapter 1.16 of the Huntington Beach Municipal Code, or may be subject to administrative citations as prescribed in Chapter 1.18 of the Huntington Beach Municipal Code. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

17.56.090 CFC Section 202, Definitions, CONTAINMENT VESSEL, Amended. A gas-tight Department of Transportation-transportable recovery vessel designed so that a leaking compressed gas container can be placed within its confines thereby encapsulating the leaking container.

17.56.100 CFC Section 321, Development on or near land containing or emitting toxic combustible or flammable liquids, gases or vapors, Added

SECTION 321

DEVELOPMENT ON OR NEAR LAND CONTAINING OR EMITTING TOXIC, COMBUSTIBLE OR FLAMMABLE LIQUIDS, GASES OR VAPORS, Added

321.1 Geological studies, evaluations, reports. The fire code official may require the submittal for approval of geological studies, evaluations, reports remedial recommendations and/or similar documentation from a state licensed and department-approved individual or firm on any parcel of land to be developed which has, or is adjacent to, or within 1000 feet of a parcel of land that has an active or abandoned oil or gas well operation, petroleum or chemical refining facility, petroleum or chemical storage, or may contain or give off toxic, combustible or flammable liquids, gases or vapors. The submitted documentation will show that the site is compliant with current signed City Specifications 429, Methane District Building Permit Requirements and 431-92, Soil Quality Standards.

17.56.110 CFC Section 322, Parade floats, Added

CFC SECTION 322

PARADE FLOATS, Added

322.1 Decorative materials, Added. Decorative materials on parade floats shall be non-combustible or flame retardant.

322.2 Fire protection, Added. Motorized parade floats and towing apparatus shall be provided with a minimum 2A10BC rated portable fire extinguisher readily accessible to the operator.

322.3 Engine exhaust, Added. Motorized parade floats shall be provided with an engine exhaust system that is capable of carrying the exhaust product away from any enclosed spaces to the open air.

17.56.120 CFC Section 503.1.1 Buildings and facilities, Amended. Approved fire apparatus access roads shall be provided for every building, facility or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and current signed City Specification 401, *Minimum Standards for Fire Apparatus Access*, and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where:

1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.

1.3. There are not more than two Group R-3 or Group U occupancies.

17.56.130 CFC Section 503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8 and current City Specification 401, *Minimum Standards for Fire Apparatus Access*.

17.56.140 CFC Section 503.2.1 Dimensions, Amended. The fire access roads shall comply with the requirements stated in current City Specification 401, *Minimum Standards for Fire Apparatus Access*.

17.56.150 CFC Section 503.2.3 Surface, Amended. Fire apparatus access roads shall comply with the requirements stated in current City Specification 401, *Minimum Standards for Fire Apparatus Access*.

17.56.160 CFC Section 503.2.4 Turning radius, Amended. The required turning radius of a fire apparatus access road shall comply with the requirements stated in current City Specification 401, *Minimum Standards for Fire Apparatus Access*.

17.56.170 CFC Section 503.2.5 Dead ends, Amended. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall comply with the requirements stated in current City Specification 401, *Minimum Standards for Fire Apparatus Access*.

17.56.180 CFC Section 503.6 Security gates, Amended. The installation of security gates across a fire apparatus access road shall be installed and operated in accordance with current City Specification 403, *Fire Access for Pedestrian or Vehicular Security Gates & Buildings*.

17.56.190 CFC Section 505.1 Address identification, Amended. New and existing buildings shall be provided with address identification in accordance with City Specification 428, *Premise Identification*.

17.56.200 CFC Section 506.1 Where required, Amended. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location in accordance with current City Specification 403, *Fire Access for Pedestrian or Vehicular Security Gates & Buildings*.

17.56.210 CFC Section 507.1 Required water supply, Amended. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

Exception:

Title 25 California Code of Regulations, Chapter 2, Subchapter 1, Article 6 – Fire Protection Standards for Parks – is hereby adopted by reference, and applies to all existing mobile home parks licensed by the State of California Department of Housing and Community Development (HCD), notwithstanding any contrary provisions as set forth in Title 25, Section 1304(a).

17.56.220 CFC Section 507.5 Fire hydrant systems, Amended. Fire hydrant systems shall comply with Sections 507.5.1 through 507.5.7 and Appendix C, or by an approved method. Minimum fire hydrant spacing for multi-family residential (triplexes or greater, apartment houses, hotels, convents or monasteries) and all commercial or industrial properties shall be spaced not more than 300 feet along streets or fire apparatus access roadways, so that all fire apparatus-accessible portions of the building are within 150 feet of a hydrant. Minimum fire hydrant spacing for single-family detached and duplex residential dwellings shall be not more than 500 feet along the street or fire apparatus access roadways, so that each dwelling is within 300 feet of a hydrant.

17.56.230 CFC Section 507.5.7 Fire hydrant supply connections, Added. It shall be prohibited for underground water supply lines with a single connection from a municipal main to supply both fire hydrants and fire suppression systems. Looped supply lines that are supplied from two points of connection shall be allowed for hydrants and fire suppression system supplies.

17.56.240 CFC Section 901.6.3 Records, Amended. Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained. All reports of the test and maintenance results shall be submitted to the Huntington Beach Fire Department electronically in a method and format selected by the fire code official.

17.56.250 CFC Section 903.2 Where Required, Amended. Approved automatic sprinkler systems in new buildings and structures as well as existing buildings and structures, as required by Section 1103.5.5, shall be provided in the locations described in Sections 903.2.1 through 903.2.12. In no case, where the provisions of Section 903 of this code are applicable, and notwithstanding any less restrictive provisions or exceptions, shall a building or structure be constructed or modified to exceed 10,000 square feet in total gross floor area, or 5,000 square feet in gross floor area per fire area, without approved automatic sprinkler systems being provided throughout the building or fire area, respectively.

17.56.260 CFC Section 903.2.4 Group F, Amended. An automatic sprinkler system shall be provided throughout all buildings containing a Group F occupancy where one of the following conditions exists:

1. A Group F fire area exceeds 5,000 square feet.
2. A Group F fire area is located more than three stories above grade plane.
3. Reserve

4. A Group F occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

17.56.270 CFC Section 903.3.1.1.1 Exempt location, Amended. In other than Group I-2, I-2.1 and I-3 occupancies, automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, of fire-resistance rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. Fire service access elevator machine rooms and machinery spaces.
4. Machine rooms, machinery spaces, control rooms, and control spaces with occupant evacuation elevators designed in accordance with Section 3008 of the California Building Code.
5. When approved by the fire code official, spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, and associated electrical power distribution equipment, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the California Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 712 of the California Building Code, or both.
6. Solar photovoltaic panel structures with no use underneath. Signs may be provided, as determined by the enforcing agency prohibiting any use underneath including storage.
7. Solar photovoltaic (PV) panels supported by framing that have sufficient uniformly distributed and unobstructed openings throughout the top of the array (horizontal plane) to allow heat and gases to escape, as determined by the enforcing agency.

17.56.280 CFC Section 903.3.5.3 Hydraulic calculations margin, Added. Fire protection system hydraulic calculations shall include a 10 percent safety margin between the available water supply and the required system supply.

17.56.290 CFC Section 903.4 Sprinkler system supervision and alarms, Amended. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area systems in accordance with Section 903.3.8.

3. Reserved.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Reserved.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, pre-action and deluge sprinkler systems that are sealed or locked in the open position.

17.56.300 CFC Section 907.1 General, Amended. This section covers the application, installation, performance and maintenance of fire alarm systems and their components in new and existing buildings and structures. The requirements of Section 907.2 are applicable to new buildings and structures. The requirements of Section 907.2 are also applicable to existing buildings and structures as required by section 907.9.

17.56.310 CFC Section 914.2.1 Automatic sprinkler system, Amended. Covered and open mall buildings and buildings connected shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, which shall comply with the following:

1. The automatic sprinkler system shall be complete and operative throughout occupied space in the covered mall building prior to occupancy of any of the tenant spaces. Unoccupied tenant spaces shall be similarly protected unless provided with approved alternate protection.
2. Sprinkler protection for the mall of a covered mall building shall be independent from that provided for tenant spaces or anchor buildings.
3. Sprinkler protection for the tenant spaces of an open mall building shall be independent from that provided for anchor buildings.
4. Sprinkler protection shall be provided beneath exterior circulation balconies located adjacent to an open mall.
5. Where tenant spaces are supplied by the same system, they shall be independently controlled.

Exception: Reserved.

17.56.320 CFC Section 914.3.1 Automatic sprinkler system, Amended. Buildings and structures shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 914.3.2. A sprinkler water-flow alarm-initiating device and a control valve with a supervisory signal-initiating device shall be provided at the lateral connection to the riser on each floor.

17.56.330 CFC Section 914.6.1 Automatic sprinkler system, Amended. Stages shall be equipped with an automatic fire-extinguishing system in accordance with Section 903.3.1.1.

Sprinklers shall be installed under the roof and gridiron and under all catwalks and galleries over the stage. Sprinklers shall be installed in dressing rooms, performer lounges, shops and storerooms accessory to such stages.

17.56.340 CFC Section 916.12 Notification Devices, Added. Gas detection systems shall be equipped with emergency notification devices. Notification devices shall be located in all areas of the building protected by the gas detection system. Notification devices shall comply with the installation and spacing requirements stated in NFPA 72 and the manufacturer's specifications.

17.56.350 CFC Section 1103.5 Sprinkler systems, Amended. An automatic sprinkler system shall be provided in existing buildings in accordance with Sections 1103.5.1 through 1103.5.5.

17.56.360 CFC Section 1103.5.5 Tenant improvements, Added. Section 903 shall apply to existing occupancies/tenant space undergoing tenant improvement as follows:

1. Occupancy/tenant space undergoing tenant improvement where the square footage of the space is being increased.
2. Occupancy/tenant space where there is a change in occupancy classification to an assembly, educational, institutional, hazardous, or residential use.
3. Occupancy/tenant space where the entire roof structure is to be removed during the improvement.
4. Assembly occupancy with an occupant load that exceeds 299 persons.

Exceptions:

1. Existing Group R-3 occupancies that will remain below a gross floor area of 5,000 square feet.
2. Existing Group R-2 occupancies where the tenant improvement is in only one unit.

17.56.370 CFC Section 1103.7 Fire alarm systems, Amended. An approved fire alarm system shall be installed in existing buildings and structures in accordance with Sections 1103.7.1 through 1103.7.10 and provide occupant notification in accordance with Section 907.5 unless other requirements are provided by other sections of this code. Existing high-rise buildings shall comply with Section 1103.7.8 and 1103.7.9.

Exception: Occupancies with an existing previously approved fire alarm system.

17.56.380 CFC Section 1103.7.10 Tenant improvements, Added. Section 907 shall apply to existing occupancies/tenant space undergoing tenant improvement as follows:

1. Occupancy/tenant space undergoing tenant improvement where the square footage of the space is being increased.

2. Occupancy/tenant space where there is a change in occupancy classification to an assembly, educational, institutional, hazardous, or residential use.
3. Occupancy/tenant space where the entire roof structure is to be removed during the improvement.
4. Assembly occupancy that increases the maximum occupant load to exceed 299 persons.

Exception: The fire code official may waive this requirement based on the scope of the project.

17.56.390 CFC Section 2306.2.3 Above-ground tanks located outside, above grade,

Amended. Above-ground tanks shall not be used for the storage of Class I, II, or III liquid motor fuels, except as provided by this section.

1. Above-ground tanks used for outside, above-grade storage of Class I liquids shall be listed and labeled as protected above ground tanks in accordance with UL 2085 and shall be in accordance with Chapter 57. Such tanks shall be located in accordance with Table 2306.2.3.
2. Above-ground tanks used for outside, above-grade storage of Class II or IIIA liquids shall be listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be installed in accordance with Chapter 57. Tank locations shall be in accordance with Table 2306.2.3.

Exception: Other aboveground tanks that comply with Chapter 57 where approved by the fire code official.

3. Tanks containing fuels shall not exceed 2,200 gallons (8,327 L). Aggregate quantities greater than 2,200 gallons at a single site requires approval by the fire code official.
4. Tanks located at farms, construction projects, or rural areas shall comply with section 5706.2
5. Above-ground tanks used for outside above-grade storage of Class IIIB liquid motor fuel shall be listed and labeled in accordance with UL 142 or listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be installed in accordance with Chapter 57. Tank locations shall be in accordance with Table 2306.2.3.

17.56.400 CFC Section 2306.2.4.1 Tank capacity limits, Amended. Tanks storing Class I and Class II liquids at an individual site shall be limited to a maximum individual capacity of 2,200 gallons (8,327 L). Aggregate quantities greater than 2,200 gallons (8,327 L) at a single site requires approval by the fire code official.

17.56.410 CFC Section 2306.2.4.2 Fleet vehicle motor fuel-dispensing facilities, Amended.

Tanks storing Class II and Class IIIA liquids at a fleet vehicle motor fuel-dispensing facility shall be limited to a maximum individual capacity of 2,200 gallons (8,327 L). Aggregate quantities greater than 2,200 gallons (8,327 L) at a single site requires approval by the fire code official.

17.56.420 CFC Section 2306.2.6 Special enclosures, Amended. Where installation of tanks in accordance with Section 5704.2.11 is impractical, or because of property or building limitations, tanks for liquid motor fuels are allowed to be installed in buildings in special enclosures in accordance with all of the following:

1. The special enclosures shall be liquid tight and vapor tight.
2. The special enclosure shall not contain backfill.
3. Side, top and bottom of the special enclosure shall be reinforced concrete at least 6 inches (152 mm) thick, with openings for inspection through the top only.
4. Tanks connections shall be piped or closed such that neither vapors nor liquid can escape into the enclosed space between the special enclosure and any tanks inside the special enclosure.
5. Means shall be provided whereby portable equipment can be employed to discharge to the outside any vapors which might accumulate inside the special enclosure should a leakage occur.
6. Tanks containing Class I, II, or IIIA liquids inside a special enclosure shall not exceed 2,200 gallons (8,327 L) in individual capacity. Aggregate quantities greater than 2,200 gallons (8,327 L) at a single site requires approval by the fire code official.
7. Each tank within special enclosures shall be surrounded by a clear space of not less than 3 feet (910 mm) to allow for maintenance and inspection.

17.56.430 Section 3310.1 Required access, Amended. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet (30 480 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available. Construction sites shall have a minimum of 6-foot perimeter security fencing with gates installed for fire apparatus access. Gate widths shall be a minimum of 24 feet for fire apparatus roadways and 6 feet for walk-in entry. Secured vehicle gates or entries shall utilize approved Knox padlock or entries shall utilize an approved padlock or chain (maximum link or lock shackle size of 1/4") when required by a fire code official. Temporary fire lane signs shall be provided and maintained to allow emergency access during construction. Hydrants, fire department connections, and fire lanes shall be posted "Fire Lane – No Parking" when required by the fire code official.

17.56.440 CFC Section 3312.1 When required, Amended. An approved water supply for fire protection, either temporary or permanent, as approved by both the Fire and Public Works Departments, shall be made available as soon as combustible material arrives on the site.

17.56.450 CFC Section 3313.1 Where required, Amended. In buildings required to have standpipes by Section 905.3.1, not less than one standpipe shall be provided for use during construction. Such standpipe shall be provided with fire department hose connections at accessible locations adjacent to usable stairs. Such standpipes shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

17.56.460 CFC Section 3314.1.1 Function During Construction, Added. For buildings higher than a single story above grade, and under construction, an approved automatic sprinkler system shall be installed and shall be fully functional up to one floor below the highest point of construction having secured decking or flooring.

Exception: Buildings entirely of Type 1 or Type 2 construction.

17.56.470 CFC Section 3318 Owner's responsibility, Added. Necessary precautions and engineering controls shall be utilized to minimize the potential for false alarm activations caused by construction activity. False alarms caused by construction activity shall be treated as a system malfunction and may result in charges in accordance with the approved fee schedule.

17.56.480 CFC Section 5003.3.1.4 Responsibility for cleanup, Amended. The person, firm or corporation responsible for an unauthorized discharge shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the jurisdiction. When deemed necessary by the fire code official, cleanup may be initiated by the fire department or by an authorized individual or firm. Costs associated with such cleanup shall be borne by the owner, operator or other person responsible for the unauthorized discharge. Clean up shall comply with current signed City Specification 431-92, Soil Quality Standard.

17.56.490 CFC Section 5704.2.9.6.1 Locations where above-ground tanks are prohibited, Amended. The limits referred to herein prohibiting the storage of Class I and Class II liquids in outside, above-ground tanks are hereby established for all commercial land use districts as defined in the Huntington Beach Zoning and Subdivision Ordinance.

Exceptions:

1. Bulk plants may exist in I-G (General Industrial) zoned districts only.
2. Class III liquids classified as a crude oil may only be stored on properties with an O (oil operations, no drilling) or O1 (drilling allowed, subject to conditional use) suffix.
3. Class II liquids may be stored temporarily on construction sites with the approval of the fire code official.

4. Storage of Class I or Class II liquids in aboveground tanks is prohibited within the City of Huntington Beach except at the locations classified as Zone I-G (General Industrial) where permitted by a site plan use permit on property designated as potentially suitable for the uses permitted under these zone's classifications by the Huntington Beach Zoning and subdivision Ordinance as the same may be amended from time to time.

17.56.500 CFC Section 5704.2.11.1 Location, Amended. Flammable and combustible liquid storage tanks located underground, either outside or under buildings, shall be in accordance with all of the following:

1. Tanks shall be located with respect to existing foundations and supports such that the loads carried by the latter cannot be transmitted to the tank.
2. The distance from any part of a tank storing liquids to the nearest wall of a basement, pit, cellar, or lot line shall not be less than 3 feet (914 mm).
3. A minimum distance of 1 foot (305 mm), shell to shell, shall be maintained between underground tanks.
4. The installation of underground combustible/flammable liquid tanks is hereby prohibited in all residential districts. The fire code official may authorize installation of underground combustible/flammable liquid tanks in agricultural and manufacturing districts.

17.56.510 CFC Section 5704.2.13.1.4 Tanks abandoned in place, Amended. Tanks shall not be abandoned in place.

17.56.520 CFC Section 5706.2.4.4 Locations where above-ground tanks are prohibited, Amended. The limits referred to herein prohibiting the storage of Class I and II liquids in outside, aboveground tanks are hereby established for all commercial land use districts as defined in the Huntington Beach Zoning and Subdivision Ordinance.

Exceptions:

1. Bulk plants may exist in I-G (general industrial) zoned districts only.
2. Class III liquids classified as crude oil may only be stored on properties with an O (oil operations, no drilling) or O1 (drilling allowed, subject to conditional use) suffix.
3. Class II liquids may be stored temporarily on construction sites with the approval of the fire code official.
4. The storage of Class I and Class II liquids in aboveground tanks is prohibited within the City of Huntington Beach except at locations classified as Zone I-G (general industrial) where permitted by a site plan use permit on property designated as

Huntington Beach Zoning and Subdivision Ordinance as the same may be amended from time to time.

17.56.530 CFC Section 5706.3 Well drilling, operating, and abandonment. Amended.

Wells for oil production or injection, and wells for natural gas shall be drilled, operated or abandoned in accordance the Huntington Beach Oil Code (Huntington Beach Municipal Code Title 15). Where there is a conflict between the California Fire Code and the Huntington Beach Oil Code, the most restrictive shall govern.

17.56.540 CFC Section 5801.1.1 Methane Soil Gas, Added. All sources of methane soil gas, including petrogenic and biogenic, are subject to methane soil gas testing, passive or active mitigation, and methane detection and alarm systems as prescribed in City Specification 429, *Methane District Building Permit Requirements*.

17.56.550 CFC Section 5806.2 Limitations, Amended. The limits referred to herein prohibiting the storage of flammable cryogenic fluids in stationary containers outside buildings are hereby established for all commercial land use districts as defined in the Huntington Beach Zoning and Subdivision Ordinance.

17.56.560 CFC Section 6104.2 Limitations, Amended. The limits referred to herein prohibiting the storage of liquefied petroleum gases for the protection of heavily populated or congested areas are hereby established for all commercial land use districts as defined in the Huntington Beach Zoning and Subdivision Ordinance.

17.56.570 CFC Chapter 80, Reference Standards, Amendments to NFPA 13-16

6.7.2, Amended: Fire department connections (FDC) shall be of an approved type. The location shall be approved and be no more than 150 feet from a public or private hydrant. If the FDC serves a standpipe system, it shall be no more than 100 feet from a hydrant. The size of piping and the number of inlets shall be approved by the Fire code official. If approved by the H.B. Public Works Dept., it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

8.17.1.1.1 Residential Water-flow Alarms, Added. Local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies not requiring a fire alarm system by the California Fire Code shall be provided with at least one approved interior alarm device in each unit, or interconnection to the unit smoke alarm system. Sound levels in all sleeping areas shall be a minimum of 15 DBA above the average ambient sound or a minimum of 75 DBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection (GFI), serving normally operated appliances in the residence.

23.1.3 (43), Amended:

Size and location of hydrants, showing size and number of outlets and if outlets are to be equipped with independent gate valves. Whether hose houses and equipment are to be provided, and by whom, shall be indicated. Static and residual hydrants that were used in the flow tests shall be shown. Water supply certification shall be not more than six months prior to the plan submittal to the authority having jurisdiction.

17.56.580 CFC Chapter 80, Reference Standards, Amendments to NFPA 13D-16

4.1.5, Added: Stock of Spare Sprinklers.

4.1.5.1, Added: A supply of at least two sprinklers for each type shall be maintained on the premises so that any sprinklers that have operated or been damaged in any way can be promptly replaced.

4.1.5.2, Added: The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

4.1.5.3, Added: The sprinklers shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100 °F (38°C).

4.1.5.4, Added: A special sprinkler wrench shall be provided and kept in the cabinet to be used in the removal and installation of sprinklers. One sprinkler wrench shall be provided for each type of sprinkler installed.

7.1.2, Amended. The sprinkler system piping shall not have a separate control valve installed unless supervised by one of the following methods:

- (1) Central station, proprietary or remote station alarm service.

7.3 Pressure Gauges, Amended. At least one water pressure gauge shall be installed on the riser assembly.

7.6 Alarms, Amended. Exterior water flow alarm indicating devices shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location subject to final approval by the fire code official. Additional interior alarm devices shall be required to provide audibility throughout the structure. Sound levels in all sleeping areas with all intervening doors closed shall be a minimum of 15 dBA above the average ambient sound level but not less than 75 dBA. Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exceptions:

1. When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.

2. When smoke detectors specified by the CBC or CRC are used to sound an interior alarm upon water flow switch activation.

17.56.590 CFC Chapter 80, Reference Standards, Amendments to NFPA 13R-16

6.16.1, Amended. A local waterflow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Chapter 9 of the California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 dBA above the average ambient sound or a minimum of 75 dBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm, residential smoke detection or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

There shall also be a minimum of one exterior alarm indicating device, listed for outside service and audible from the access roadway that serves that building.

17.56.600 CFC Chapter 80, Reference Standards, Amendments to NFPA 14-13

6.4.5.4.1, Amended. The fire department connection shall have *four* 2 ½ inch, internal threaded (NHS) inlets. The inlets shall be provided with approved caps to protect the system from entry of debris. The location of the FDC shall be approved and be no more than 100 feet from a public hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red.

17.56.610 CFC Chapter 80, Reference Standards, Amendments to NFPA 24-16

5.9.1.2, Amended. Fire department connections shall be of an approved type and contain a minimum of two 2 ½ inch inlets. The location shall be approved and be no more than 150 feet from a public or private fire hydrant when serving a fire sprinkler system. When serving a standpipe system, it can be no more than 100 feet from a hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. The supply pipe shall be painted OSHA safety red.

5.9.1.2.1, Added. When the sprinkler density design is 500 gpm (including the interior hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

6.2.1.1, Added. The closest upstream indicating control valve to the riser shall be painted OSHA red.

6.3.3, Added. All post indicator valves controlling fire suppression water supplies shall be painted OSHA red.

10.1.1.3.2, Added. All ferrous pipe shall be coated and wrapped. Joints shall be coated and wrapped after assembly. All fittings shall be protected with a loose 8-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

Exception: 316 Stainless Steel pipe and fittings.

10.4.1.1, Amended. All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material, prior to poly-tube, and after installation.

10.4.1.4, Added. All bolts used in pipe-joint assembly shall be 316 stainless steel.

10.4.3.1, Amended. Private fire service mains supplying fire protection systems within the building shall be permitted to extend no more than 18 inches, as measured from the outside of the building to the center of the vertical pipe, under the building to the riser location. The pipe under the building or building foundation shall be 316 stainless steel and shall not contain mechanical joints.

10.4.3.1.1, Amended. Pipe Joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 316 stainless steel and shall not contain mechanical joints.

10.4.3.2, Amended. Where approved, private fire service mains supplying systems within the building shall be permitted to extend more than 18 inches under the building when all the requirements of 10.4.3.2.1 through 10.4.3.2.4 are met.

17.56.620 CFC Chapter 80, Reference Standards, Amendments to NFPA 72-16

14.2.2.2.3, Amended. If a deficiency is not corrected at the conclusion of system inspection, testing, or maintenance, the system owner or the owner's designated representative and fire code official shall be informed of the impairment in writing within 24 hours.

17.56.630 CFC Appendix B, Fire Flow Requirements for Buildings, B105 One- and two-family dwellings, Amended. The minimum fire-flow and flow duration requirements for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1 (1) and B105.1 (2).

Exception: When the building is equipped with an approved automatic sprinkler system, the fire flow requirements of Table B105.1 and B105.1 (2) shall not be less than 1,000 gallons per minute (3785.4 L/min) for 1 hour.

SECTION 4. This ordinance shall become effective thirty (30) days from the date of its adoption.

PASSED AND ADOPTED by the City Council of the City of Huntington Beach at a regular meeting thereof held on the _____ day of _____, 2019.

Mayor

ATTEST:

APPROVED AS TO FORM:

City Clerk



City Attorney *mw*

REVIEWED AND APPROVED:

INITIATED AND APPROVED:

City Manager



Fire Chief