Regular Council Meeting
November 3, 2022

FRESNO CITY COUNCIL

City of FRESNO

Supplement Packet

ITEM(S)

1-F (22-1567)

Actions pertaining to repealing and adding Fire and Life Safety Regulations in the Fresno Municipal Code:

[TITLE TRUNCATED FOR SUPPLEMENTAL PAKCET COVER PAGE]

Contents of Supplement Updated Resolution (v.2) and FMC Fire Code Amendments

Item(s)

Supplemental Information:
Any agenda related public documents received and distributed to a majority of the City Council after the Agenda Packet is printed are included in Supplemental Packets. Supplemental Packets are produced as needed. The Supplemental Packet is available for public inspection in the City Clerk's Office, 2600 Fresno Street, during normal business hours (main location pursuant to the Brown Act, G.C. 54957.5(2). In addition, Supplemental Packets are available for public review at the City Council meeting in the City Council Chambers, 2600 Fresno Street. Supplemental Packets are also available on-line on the City Clerk's website.
Americans with Disabilities Act (ADA):
The meeting room is accessible to the physically disabled, and the services of a translator can be made available. Requests for additional accommodations for the disabled, sign language interpreters, assistive listening devices, or translators should be made one week prior to the meeting. Please call City Clerk's Office at 621-7650. Please keep the doorways, aisles and wheelchair seating areas open and accessible. If you need assistance with seating because of a disability, please see Security.

RESOLUTION NO._____

A RESOLUTION OF THE COUNCIL OF THE CITY OF FRESNO, CALIFORNIA MAKING AND ADOPTING EXPRESS FINDINGS THAT MODIFICATIONS OR CHANGES TO THE CALIFORNIA FIRE CODE ARE REASONABLY NECESSARY BECAUSE OF LOCAL CLIMATIC, GEOLOGICAL AND TOPOGRAPHICAL CONDITIONS

WHEREAS, the State of California has adopted the 2021 edition of the International Fire Code, with amendments, which was entitled the 2022 California Fire Code. The 2022 California Fire Code has been incorporated into Title 24, Part 9 of the California Code of Regulations and will take effect on January 1, 2023; and,

WHEREAS, California Health & Safety Code Section 17958.5 authorizes the City, by ordinance, to make changes or modifications to the requirements contained in the provisions of the California Fire Code and other regulations adopted pursuant to California Health & Safety Code Section 17921(a) that result in more stringent local requirements; and,

WHEREAS, California Health & Safety Code Sections 17958, 17958.5 and 17958.7 require more stringent local requirements be supported by express findings made by a city that such modifications or changes are "reasonably necessary because of local climatic, geological or topographical conditions"; and,

WHEREAS, the Council of the City of Fresno intends this Resolution to fulfill the requirements of the California Health & Safety Code regarding modifications or changes to the California Fire Code including express findings of reasonable necessity because of local climatic, geological or topographical conditions.

Date Adopted:
Date Approved:
Effective Date:
City Attorney Approval: AMK

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Fresno that said Council expressly finds each of the various proposed modifications or changes to the California Fire Code, which are enumerated below, are reasonably necessary because of local climatic, geological and topographical conditions in the area encompassed by the City of Fresno, as follows:

A. LOCAL CONDITIONS:

Pursuant to Health and Safety Code, Sections 17958.7 and 18941.5, local climatic, topographical or geological conditions make the amendments to the California Fire Code reasonably necessary.

1. CLIMATIC – EXTREME TEMPERATURES

1.1 As documented in the Fresno General Plan and the recently certified Programmatic Environmental Impact Report during the summer months the City of Fresno experiences periods of what can only be described as extreme heat.

The last three years' worth of the "Local Climatological Data Annual Summary with Comparative Data" reports for 2019, 2020, and 2021 promulgated by the United States Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center demonstrate this condition. In the 2019 summary, the mean daily maximum temperature for Fresno in June, July, August and September is: 94.3°F, 99.0°F, 99.0°F and 90.5°F respectively. In 2020 the same information is noted as: 93.6°F, 99.9°F, 100.4°F and 93.0°F and in 2021 was: 97.0°F, 103.3°F, 100.2°F and 94.1°F.

Though Health & Safety Code § 17958.7 does not require the local conditions to be unique to a particular jurisdiction, the temperature charts demonstrate that the temperatures experienced in Fresno are extreme when compared to temperatures experienced in other parts of California.

1.2 Because of the extreme heat Fresno experiences during the summer months, Fresno firefighters responding to fires and other incidents requiring the evacuation of a building are regularly exposed to temperatures in excess of 105ºF degrees, when accounting for their protective gear, exposing them to the probability of heat cramps, heat exhaustion and possibly heat stroke.

2. GEOLOGICAL – LIMITED WATER SUPPLY AND WATER PRESSURE

2.1 The Fresno Metropolitan area is arid area that receives small amounts of

rainfall each year. In 2019 Fresno received 12.40 inches of water equivalent precipitation. In 2020, the City received only 6.17 inches and in 2021, only 10.38 inches. Furthermore, the Fresno City Metropolitan Area relies primarily on groundwater for approximately 50% of its municipal water supply. According to the California Department of Water Resources, the Kings basin (our underground aquifer) is in a state of critical overdraft.

3. CLIMATIC/TOPOGRAPHICAL – POOR AIR QUALITY CAUSED BY TOPOGRAPHY OF SAN JOAQUIN VALLEY AIR BASIN, LARGE NUMBER OF SUNNY DAYS AND INVERSIONS THAT FORM DURING WINTER MONTHS

3.1 As a result of the San Joaquin Valley's climate and topography, the San Joaquin Valley Air Basin (SJVAP) is predisposed to poor air quality. High mountain ranges surrounding the Valley frequently create air layer inversions that prevent mixing of air masses. The large number of sunny days per year, and high temperatures in the summer favors the formation of ozone. The area receives so much sunshine that the City of Fresno was ranked the second highest major California city for sunshine, eighth in the nation, with an estimated 79 percent annual average of possible sunshine for more than a 30-year period. In the winter, inversions form that often trap particulate matter.

3.2 The Federal EPA and California Air Resources Board have classified the San Joaquin Valley Air Basin as severe non-attainment for Ozone and serious non-attainment (federal) non-attainment (state) for PM_{10}. Ozone is formed by a complex series of chemical reactions between reactive organic gases (ROG), oxides of nitrogen and sunlight. PM_{10} is suspended particulate matter that is less than 10 microns in size. Given its small size, PM_{10} can remain airborne for long periods and can be inhaled, pass through the respiratory system, and lodge in the lungs. In general, non-attainment means that the federal standard has been exceeded more than twice per year.

3.3 Smoke is composed primarily of carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons and other organic chemicals, nitrogen oxides, trace minerals and several thousand other compounds. Particulate matter is the principal pollutant of concern for the relatively short-term exposures (hours to weeks) typically experienced by the public. Particulate matter in wood smoke has a size range near the wavelength of visible light (.4-.7 micrometers). Because these particles can be inhaled into the deepest recesses of the lungs, they are thought to represent a greater health concern than larger particles. Another pollutant of concern during some events is carbon monoxide. The San Joaquin Valley Air Pollution Control District states "Emissions from burning include fine particulate, hydrocarbons, oxides of nitrogen, oxides of sulfur, carbon monoxide, and toxic air contaminants that contribute to our air quality problems."

4. TOPOGRAPHICAL – FRESNO'S DEVELOPMENT PATTERN

4.1 Due to the relatively low-density growth pattern in the Fresno area, its 20 fire stations are spaced approximately four miles apart resulting in an average of a two-mile running distance for the designated first-in engine company. This average two-mile travel distance increases the response time to fires, which result in an increase in the size and

intensity of fires.

4.2 As set forth in detail in the attached proposed Resolution and Ordinance, each of the local amendments to the California Fire Code are reasonably necessary because of these climatic, topographical, and geological conditions. The amendments may be generally characterized as relating to (1) fire sprinkler systems; (2) luminous exit markings; (3) additional regulation of recycling and waste handling facilities; and (4) additional regulation of locations of above-ground tanks, the amount of Class 1 and Class II liquids at farms and construction sites in above-ground tanks and basement storage of flammable liquids. Below is a brief summary of the reasons these amendments are necessary.

5 FIRE SPRINKLER SYSTEMS

5.1 Fire sprinkler systems have proven extremely effective in suppressing and extinguishing unwanted fires using a small fraction of the water used by traditional fire suppression methods. This results in smaller fires or fires of shorter duration and thus produces far less toxic smoke that affects air quality. Because fire sprinklers limit the size and the duration of fires, fewer fire personnel are likely to be required to respond to said fires, which reduce the number of fire personnel who would be exposed to the health risks associated with sustained exposure to high temperatures and smoke toxicity. Fire sprinklers also address the extended run times due to topography-related, low density growth patterns in Fresno, and require personnel to stay on scene for shorter periods of time. This allows personnel to be available for other calls for services at a higher rate. Finally, the lower consumption of water as a result of the installation of fire sprinklers preserves one of our City's most valuable resources, and limits the amount of water effluent (which could be in the millions of gallons) that must be treated downstream. The modifications proposed in this category maintain existing amendments approved by previous Councils that continue a proactive fire sprinkler installation emphasis for community-wide fire protection that commenced in 1979, and expand protection to reduce demand on the City's resources.

6. PHOTOLUMINESCENT EXIT MARKINGS

6.1 Photoluminescent exit markings greatly assist individuals in evacuating buildings without the use of fire personnel. Accordingly, requiring these markings facilitate the unassisted evacuation of buildings. Therefore, fewer fire personnel will be needed at the scene of a fire to assist in the evacuation of a building in which photoluminescent exit markings have been installed. This modification continues an existing amendment first approved by Council in 2006.

7. ADDITIONAL REGULATION OF RECYCLING AND WASTE HANDLING FACILITIES

7.1 These regulations will serve to reduce the possibility of spontaneous combustion of piles of waste materials and facilitate the suppression and extinguishing of

fires at these sites. This will result in smaller amounts of pollutants being released into the air and in effluent water runoff, and result in fewer fire personnel having to respond to said fires. This may also shorten the time that fire personnel will be required to remain at the scene of the fire. These modifications are a continuation of requirements approved by Council in 2003, after the disastrous Crippen Fire in southwest Fresno.

8. ADDITIONAL REGULATION OF MOTOR FUEL DISPENSING AND REPAIR GARAGES, LOCATIONS OF ABOVE-GROUND TANKS, THE AMOUNT OF CLASS I AND CLASS II LIQUIDS AT FARMS AND CONSTRUCTION SITES IN ABOVE-GROUND TANKS AND BASEMENT STORAGE OF FLAMMABLE LIQUIDS.

8.1 Fresno's very hot, dry conditions make all combustible materials (grass, weeds, buildings, roof coverings, etc.) highly combustible, which increases the general community wide fire hazard. High temperatures also make all flammable and combustible liquids and gases much more volatile, increasing the fire hazard where they are present. Therefore, increased regulation of the storage of certain classes of fuels and gases is reasonably necessary to reduce the fire risk associated with the ignition of these materials. These modifications are a continuation of amendments approved by Council that date back to at least 1978, in an effort to control the risk of low flash point hazardous materials in our community.

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STATE OF CALIFORNIA)
COUNTY OF FRESNO) ss.
CITY OF FRESNO)

I, TODD STERMER, City Clerk of the City of Fresno, certify that the foregoing resolution was adopted by the Council of the City of Fresno, at a regular meeting held on the _____ day of _____ 2022.

AYES :
NOES :
ABSENT :
ABSTAIN :

Mayor Approval: _____, 2022
Mayor Approval/No Return: _____, 2022
Mayor Veto: _____, 2022
Council Override Vote: _____, 2022

TODD STERMER, CMC
City Clerk

By: _____
Deputy Date

APPROVED AS TO FORM:
RINA M. GONZALES
Interim City Attorney

By: _____
Brandon M. Collet Date
Supervising Deputy City Attorney

Fresno Fire Department: 2022 FMC Code Adoption (Amendments)

Amendment # or Code Section #	Amendment Date	Language	Comments	Approved/ Not Approved to
SECTION 10-50901.4.5. ADDITIONAL FIRE PROTECTION SYSTEMS.		901.6.3.1 Records reporting. All inspection, testing and maintenance reports required by any code or regulation shall be forwarded to the fire code official using approved electronic media. The fire code official is hereby authorized to the designate a third party to receive these reports. Paper (hard copy) reports are not permitted.	This proposed amendment will allow the Fresno Fire Department to utilize technology to ensure fire protection system owners, inspect, test, and maintain their systems in compliance with minimum code requirements. While it is the owner's obligation to maintain these systems, as the authority having jurisdiction, Fire staff must handle paper or hard copy submissions of the required documentation for these systems. This proposal allows our staff to instead utilize a web-based service for tracking (and notification) of inspection, testing and maintenance records. This will increase efficiencies in our Division, allowing additional time for inspections and plan review by capitalizing on this technology, while at the same time increasing the ease of compliance for system owners. Most contractors are already familiar with these types of web-based solutions as many jurisdictions throughout the State of California and the Nation already utilize them.	
SECTION 10-50901.4.5. ADDITIONAL FIRE PROTECTION SYSTEMS.		901.9.1 Termination of water service. For water supply service to any piece of fire protection system equipment required by this code, notice shall be made to the fire code official whenever water service is terminated. Notice shall be made in writing by the provider of the water service being terminated.	This proposed amendment will require the various water purveyors to notify the fire code official of a fire protection system water service being terminated. Although the ultimate responsibility rests with the property owner, the property owner is not cited in this section since, if they discontinued the service, they would likely not understand the implications, and if they did, they would have no incentive to contact the fire code official. This section is designed to allow the fire code official time to initiate enforcement action on the property owner, so that the shutoff of water service to fire protection systems is potentially prevented or the systems are restored in a timely fashion. Staff spoke to all water purveyors that service the City of Fresno regarding our desire to add this as a local amendment to the code, and all had no issues with it.	
Other Local Amendments		Re-adoption of other local amendments.	All other proposed amendments being recommended for adoption are existing, longstanding amendments that being carried forward from previous code adoptions. Every three years, the California Health and Safety Code requires cities to repeal existing fire code amendments and re-adopt them along with the new California Fire Code. The City has had most of these amendments in place since the late 1970's, and carrying them forward in this adoption will maintain the existing level of fire protection currently enjoyed by our residents.	