

**ORDINANCE NO. 2054**

**AN ORDINANCE OF THE CITY OF SANTA CLARA, CALIFORNIA, AMENDING CHAPTER 15.60 ("SANTA CLARA MUNICIPAL FIRE AND ENVIRONMENTAL CODE") OF TITLE 15 ("BUILDING AND CONSTRUCTION"), OF "THE CODE OF THE CITY OF SANTA CLARA, CALIFORNIA" TO ADOPT THE 2022 CALIFORNIA FIRE CODE, AND THE FULL TEXT OF CERTAIN PORTIONS OF THE CODES OF THE STATE OF CALIFORNIA RELATED TO THE SIX CERTIFIED UNIFIED PROGRAM AGENCY PROGRAMS, AS AMENDED**

**BE IT ORDAINED BY THE CITY OF SANTA CLARA AS FOLLOWS:**

**WHEREAS**, the State of California recently adopted and amended the 2021 International Fire Code to establish the 2022 California Fire Code;

**WHEREAS**, the 2022 California Fire Code will automatically go into effect on January 1, 2023;

**WHEREAS**, the 2022 California Fire Code is contained within, and is a subset of, the California Building Standards Code, which may be amended by a local jurisdiction to establish more restrictive standards, pursuant to California Health and Safety Code §18941.5 and §17958, et seq.;

**WHEREAS**, restrictive standards established by a local jurisdiction pursuant to this authority must be reasonably necessary because of local climatic, geological, or topographical conditions;

**WHEREAS**, the City of Santa Clara Fire Department has worked with other Santa Clara County Fire Agencies in the Santa Clara County Fire Code Work Group to develop necessary amendments to the California and International Fire Code; and,

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**WHEREAS**, the City of Santa Clara ("City") finds it necessary to amend the 2022 California Fire Code, as adopted and amended by the State of California, in order to maintain a reasonable degree of fire and life safety within the City because of local climatic, geological, and/or topographical conditions, which conditions and findings are set forth in the accompanying Resolution.

**NOW THEREFORE, BE IT FURTHER ORDAINED BY THE CITY OF SANTA CLARA, AS FOLLOWS:**

**SECTION 1:** That Chapter 15.60 "Santa Clara Fire and Environmental Code" of Title 15 "Building and Construction" of "The Code of the City of Santa Clara" ("SCCC") is repealed in its entirety and replaced with the following:

**"Chapter 15.60**

**MUNICIPAL FIRE AND ENVIRONMENTAL CODE**

**Sections:**

<b>15.60.010</b>	<b>Title</b>
<b>15.60.020</b>	<b>Adoption by reference</b>
<b>15.60.030</b>	<b>Scope and general requirements</b>
<b>15.60.040</b>	<b>Enforcement</b>
<b>15.60.050</b>	<b>General authority and responsibility</b>
<b>15.60.060</b>	<b>Permits</b>
<b>15.60.070</b>	<b>Fees</b>
<b>15.60.080</b>	<b>Inspections</b>
<b>15.60.090</b>	<b>Means of appeals</b>
<b>15.60.100</b>	<b>Violations</b>
<b>15.60.110</b>	<b>Stop work orders</b>
<b>15.60.120</b>	<b>Building division plan submittals</b>
<b>15.60.130</b>	<b>General definitions</b>
<b>15.60.140</b>	<b>Hazard communication</b>
<b>15.60.150</b>	<b>Fire apparatus access roads</b>
<b>15.60.160</b>	<b>Access to building openings and roofs</b>
<b>15.60.170</b>	<b>Premises identification</b>
<b>15.60.180</b>	<b>Emergency responder radio coverage</b>
<b>15.60.190</b>	<b>Electrical equipment, wiring and hazards</b>
<b>15.60.200</b>	<b>Fuel-fired appliances</b>
<b>15.60.210</b>	<b>Penetrations</b>

- 15.60.220 Decorative materials and artificial decorative vegetations in new and existing buildings
- 15.60.230 General – fire protection and life safety systems
- 15.60.240 Automatic sprinkler systems
- 15.60.250 Smoke control systems
- 15.60.260 Definitions – energy storage systems
- 15.60.270 Electrical energy storage systems (ESS)
- 15.60.280 Fire safety during construction and demolition
- 15.60.290 Owner’s responsibilities for fire protection and site security
- 15.60.300 Access for emergency response
- 15.60.310 Means of egress
- 15.60.320 Completion before occupancy
- 15.60.330 General – hazardous materials
- 15.60.340 Definitions – hazardous materials
- 15.60.350 General requirements – hazardous materials
- 15.60.360 Storage
- 15.60.370 Definitions – corrosive materials
- 15.60.380 General – explosives and fireworks
- 15.60.390 Fireworks displays
- 15.60.400 Storage – hazardous materials
- 15.60.410 On-demand mobile fueling
- 15.60.420 Mobile gaseous fueling of hydrogen-fueled vehicles
- 15.60.430 Highly toxic and toxic compressed gases
- 15.60.440 General-liquified petroleum gases
- 15.60.450 Use - pyrophoric materials
- 15.60.460 Reference standards
- 15.60.470 Appendix B – fire-flow requirements for buildings
- 15.60.480 Appendix C – number of fire hydrants
- 15.60.490 Appendix C – fire hydrant spacing
- 15.60.500 Appendix D – minimum specifications

**15.60.010 Title**

This chapter shall be known and may be cited and referred to as the “Municipal Fire and Environmental Code for the City of Santa Clara.”

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### **15.60.020 Adoption by reference**

The “2022 California Fire Code” is adopted in its entirety, including Appendices B, C, D, E, and N, as published by the International Code Council, Inc. without regard to matrix adoption tables, and amendments to sections adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 9, known as the California Fire Code. The 2022 California Fire Code is amended as specifically set forth in this Chapter.

Pursuant to the approval by the State of California Environmental Protection Agency’s (CalEPA) of Santa Clara’s application to serve as the Certified Unified Program Agency (CUPA) for the City, the City of Santa Clara assumes authority and responsibility within the City for the California Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) established by Health and Safety Code, Division 20, Chapter 6.11, Section 25404, et seq. It is the purpose of this Chapter to consolidate to the extent feasible, all the administration and enforcement of six hazardous materials management programs and ensures the coordination and consistency of any regulations adopted pursuant to such program requirements.

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Pursuant to the provisions of Section 25502, Subdivision (b) of Chapter 6.95 of Division 20 of the California Health and Safety Code, the City does hereby assume responsibility for the implementation of the provisions of Chapter 6.95 (commencing with Section 25500) of Division 20 of the California Health and Safety Code and shall have exclusive jurisdiction within the jurisdictional boundaries of the City of Santa Clara for the purposes of carrying out the provisions of said chapter. The City also specifically adopts the penalty provisions specified in Section 25515 of the California Health and Safety Code and specifically requires that any person who violates Section 25507 of the California Health and Safety Code shall be subject to the penalties specified in Section 25515 of the Health and Safety Code.

The City does hereby assume responsibility for the enforcement and implementation of the Hazardous Waste Generator Program, Onsite Hazardous Waste Treatment Program, and Tiered Permitting Program and does hereby adopt by reference Health and Safety Code Chapter 6.5, Section 25100, et seq. and Section 25404 et seq.

The City does hereby assume responsibility for the enforcement and implementation of the Aboveground Petroleum Storage Act (APSA) and does hereby adopt by reference Health and Safety Code Chapter 6.67, Section 25270, et seq., and 25404 et seq.

The City does hereby assume responsibility for the enforcement and implementation of the Underground Storage Tank (UST) Permit Program, and does hereby adopt by reference Health and Safety Code Chapter 6.7, Section 25280, et seq., and Section 25404 et seq.

The City does hereby assume responsibility for the enforcement and implementation of the Hazardous Materials Release Response Plans and Inventories (Business Plans) Program, and does hereby adopt by reference, Health and Safety Code Chapter 6.95, Article 1, Section 25500, et seq., and Section 25404 et seq.

The City does hereby assume responsibility for the enforcement and implementation of the Hazardous Materials Area Plan Program, and does hereby adopt by reference Health and Safety Code Chapter 6.95, Article 1, Section 25500 et seq. and Section 25404 et seq.

The City does hereby assume responsibility for the enforcement and implementation of the California Accidental Release Prevention (CalARP) Program, and does hereby adopt by reference Health and Safety Code Chapter 6.95, Article 2, Section 25531, et seq. and Section 25404 et seq.

The foregoing are hereby adopted by reference, with changes and modifications as hereinafter set forth, as the "Municipal Fire and Environmental Code of the City of Santa Clara."

**15.60.030 Scope and general requirements.**

California Fire Code Section 101.1 is hereby amended to read:

**101.1 Title.** These regulations shall be known as the "Municipal Fire and Environmental Code of the City of Santa Clara", hereinafter referred to as "this code."

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#### **15.60.040 Enforcement.**

California Fire Code Section 103.1 is hereby amended to read:

**103.1 Creation of agency.** The Community Risk Reduction Division is hereby created and the official in charge thereof shall be known as the fire code official. The function of the agency shall be the implementation, administration, and enforcement of the provisions of this code.

California Fire Code is hereby amended by adding Section 103.4 to read:

**103.4 General Authority.** The following designated positions may enforce the provisions of this code by issuance of citations. Peace officers and persons employed in such positions are authorized to exercise the authority provided in Penal Code Section 836.5 and are authorized to issue citations for violations of this code. The designated employee positions are the City Manager or his or her duly authorized agents and representatives.

**103.4.1 Peace Officers.** The Fire Marshal, Assistant Fire Marshal, and Deputy Fire Marshals, shall have the powers of a peace officer, pursuant to Penal Code Section 830.37, and may issue citations for violations of fire-related laws and ordinances, pursuant to Penal Code Section 836.5.

**103.4.2 Administrative Citations.** The following designated employee positions may enforce the provisions of this chapter by issuance of administrative citations. Fire Chief, Fire Marshal, Assistant Fire Marshal, Deputy Fire Marshal, Fire Protection Engineer or Fire Prevention Specialist.

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#### **103.4.3 Criminal or Civil Penalty for Violations – Funds to Account.**

Pursuant to the City's prosecutorial discretion, the City may enforce violations of the provisions of this code in any manner authorized by this section or by any other law, including but not limited to issuance of criminal citation, referral to the District Attorney, referral to other appropriate agencies, administrative actions, and civil actions. Funds received by the City for criminal or civil penalties shall be paid into the Fire and Environmental Enforcement Fund.

#### **103.4.4 Penalties Authorized by the Health and Safety Code and Related**

**Regulations.** Any person who intentionally, accidentally or negligently violates any provision of this chapter, any written authority of the City Manager, the Fire Chief, the Fire Marshal or the Assistant Fire Marshal or his or her duly authorized agents and representatives, or any provision of any permit issued pursuant to this code shall be liable to the City for any and all penalties, fines, fees, and other sanctions which may be authorized by the Health and Safety Code, adopted by reference in this chapter and the regulations related thereto.

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#### **15.60.050 General authority and responsibility.**

California Fire Code is hereby amended by adding 104.13 to read:

**104.13. Standby fire personnel and fire watch personnel.** The fire code official has the authority to require, at no cost to the jurisdiction, standby fire personnel and/or fire watch personnel if in the opinion of the fire code official potentially hazardous conditions or reductions in a life safety feature exist. The owner, agent, or lessee shall provide one or more qualified persons, as required and approved, to be on duty. Such standby fire personnel or fire watch personnel shall be subject to the fire code official's orders at all times and shall remain on duty during the times such places are open to the public, when such activity is being conducted, or as required by the fire code official. Fire watch personnel are not employees or agents of the City.

#### **15.60.060 Permits**

California Fire Code Section 105.2 is hereby amended to read:

**105.2 Application.** Applications for a permit required by this code shall be made to the fire code official in such form and detail as prescribed by the fire code official. Applications for permits shall be accompanied by such plans as prescribed by the fire code official. Said application shall be accompanied by a fee in an amount listed in the City of Santa Clara Municipal Fee Schedule.

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California Fire Code is hereby amended by adding Section 105.4.5 to read:

**105.4.5 Amended construction documents.** Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents, and additional fees may be applied in accordance with the City adopted fee schedule. As built submittals shall comply with the Santa Clara Fire Department electronic format submittal guideline.

California Fire Code is hereby amended by adding Section 105.5 to read:

**105.5 Required Operational Permits.** The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.5.2 through 105.5.52. All operational fees shall be due and payable at the time of commencement of occupancy and said permit shall expire no later than twelve (12) months after the date of issuance, or date determined by the City. Fees for the renewal of such permits shall be due and payable upon the expiration of the prior permit. No permit fee paid hereunder shall be refundable by reason of the cessation of occupancy during the permit period. Every permit fee that is not paid within a period of thirty (30) days from the time the same became due is hereby declared to be delinquent, and a penalty not to exceed five hundred (\$500.00) dollars shall be added to said fee.

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California Fire Code Section 105.5.18 is hereby amended to read:

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

1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the offsite transportation in pipelines regulated by the Department of Transportation (DOT) nor does it apply to piping systems.
2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:
  - 2.1 The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire code official, would cause an unsafe condition.
  - 2.2 The storage or use of paints, oils, varnishes or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.
3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil burning equipment.

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4. To store, handle or use Class IIIB liquids in tanks or portable tanks for fueling motor vehicles at motor fuel-dispensing facilities or where connected to fuel-burning equipment.

Exception: Fuel oil and used motor oil used for space heating or water heating.

5. To remove Class I or II liquids from an underground storage tank used for fueling motor vehicles by any means other than the approved, stationary on-site pumps normally used for dispensing purposes.
6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.
7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground flammable or combustible liquid tank.
8. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed.
9. To manufacture, process, blend or refine flammable or combustible liquids.

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10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.
11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental or manufacturing establishments “in accordance with Section 5706.5.4 or to utilize a site for on-demand mobile fueling operations in accordance with Section 5707”.

California Fire Code Section 105.5.38 is hereby amended as follows:

**105.5.38 Outdoor assembly event.** An operational permit is required to conduct an outdoor assembly event where planned and/or actual attendance exceeds 500 people.

California Fire Code is hereby amended by adding Section 105.5.55 as follows:

**105.5.55 Emergency responder radio coverage system.** An operational permit is required to maintain an emergency responder radio coverage system in accordance with Section 510.

California Fire Code is hereby amended by adding Section 105.5.56 to read:

**105.5.56 Smoke control systems.** An operational permit is required for smoke control systems.

California Fire Code is hereby amended by adding Section 105.5.57 to read:

**105.5.57 Stored Energy Systems Serving Fire/Life Safety Systems.** An operational permit is required for stationary storage battery systems providing power to fire and life safety systems.

## **15.60.070 Fees**

California Fire Code Section 107.2 is hereby amended to read:

**107.2 Schedule of permit fees.** Where a permit is required, a fee for each permit shall be paid as required, in accordance with the schedule as established in the Santa Clara Municipal Fee Schedule.

**107.2.1 Certified Unified Program Agency (CUPA) Fees.** Pursuant to the appointment of the City of Santa Clara as a Certified Unified Program Agency (CUPA) by the California Environmental Protection Agency, the Fire Department is authorized to collect fees associated with the CUPA programs.

## **15.60.080 Inspections**

California Fire Code is hereby amended by adding Section 108.5 to read:

**108.5 Documents.** Any person or party who prevents or attempts to prevent any representative of the Fire Department from examining any relevant books or records in the conduct of his or her official duties under this code shall be in violation of this code.

California Fire Code is hereby amended by adding Section 108.6 to read:

**108.6 Evidence.** Any person or party who prevents or interferes with the preservation of evidence of any violation of any of the provisions of this code or of the rules and regulations promulgated pursuant to this code or any other Federal, State, or local law, rule, or regulation shall be in violation of this code.

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California Fire Code is hereby amended by adding Section 108.7 to read:

**108.7 Interference.** Any person or party who willfully prevents, interferes with, or attempts to hinder in any way the work of any authorized representative of the Fire Department in the lawful enforcement of any provision of this code, or fails to promptly permit entry for the purposes of inspection and examination pursuant to this code shall be in violation of this code.

#### **15.60.090 Means of Appeals**

California Fire Code Section 111 is hereby amended to read:

##### **Section 111 Means of Appeals**

**111.1 Appeals Process Established.** In order to hear and decide appeals of orders, decisions or determinations made by the fire code official relative to the application and interpretation of this code, such appeal may be made pursuant to the procedures set forth in Chapter 2.115 of the Santa Clara City Code.

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## 15.60.100 Violations

California Fire Code Section 112.2 is hereby amended to read:

**112.2 Owner/occupant responsibility.** Correction and abatement of violations of this code shall be the responsibility of the owner or the owner's authorized agent. Where an occupant creates, or allows to be created, hazardous conditions in violation of this code, the occupant shall be held responsible for the abatement of such hazardous conditions. If any party fails to comply with orders of the fire code official, or if the owner/tenant is unable to be located within a reasonable time, the fire code official may take steps necessary to abate the hazard for the protection of public safety. In no event is notice necessary before abatement, when the hazard is a clear and present danger to the public welfare. All costs related to such abatement shall become a lien on the subject property.

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California Fire Code Section 112.4 is hereby amended to read:

**112.4 Violation penalties.** Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor punishable by a fine, imprisonment, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense. Pursuant to the City's prosecutorial discretion, the City may enforce violations of the provisions of this code in any manner authorized by this section or by any other law, including but not limited to issuance of criminal citations, referral to the District Attorney, referral to other appropriate agencies, administrative actions and civil actions.

California Fire Code is hereby amended by adding Section 112.4.1 to read:

**112.4.1 Penalty Schedule**

**112.4.1.1 Penalty for Administrative Citation.** Each and every violation of this chapter, which is deemed a violation, is punishable by a fine not to exceed one thousand dollars (\$1000.00).

**112.4.1.2 Penalty for Infraction.** Each and every violation of this chapter, which is deemed an infraction, is punishable by a fine not to exceed two hundred and fifty dollars (\$250.00).

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**112.4.1.3 Penalty for Misdemeanor.** Each and every violation of this chapter, which is deemed a misdemeanor, is punishable by a fine not to exceed one thousand dollars (\$1,000.00) or by imprisonment in the City or County jail for a period not exceeding six months, or by both penalty and imprisonment.

**112.4.1.4 Abatement of violation.** In addition to the imposition of the penalties herein described, the fire code official is authorized to institute appropriate action to prevent unlawful construction or to restrain, correct or abate a violation; or to prevent illegal occupancy of a structure or premises; or to stop an illegal act, conduct of business or occupancy of a structure on or about any premises.

California Fire Code is hereby amended by adding Section 112.4.2 to read:

**112.4.2 Penalties.** Funds collected pursuant to this Section shall be paid to the Community Risk Reduction Division Enforcement Fund.

#### **15.60.110 Stop work order**

California Fire Code Section 113.4 is hereby amended to read:

**113.4 Failure to comply.** Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to a fine not to exceed one thousand dollars (\$1,000.00).

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### **15.60.120 Building division plan submittals**

California Fire Code Section 115 is hereby added to read:

#### **SECTION 115 Building Division Plan Submittals**

115.1 Building Plan Submittals. The Building Inspection Division shall transmit to the Fire Department a copy of each plan submitted for the construction or alteration of those occupancies classified as A, B, E, F, H, I, L, S, and Rand all buildings classified as a high-rise as defined in the California Building Code as well as other plans when determined by the fire code official that review by the Fire Department is necessary to ensure and maintain a reasonable degree of fire and life safety.

### **15.60.130 General definitions**

**Corrosive liquid.** Corrosive liquid is:

1. any liquid which, when in contact with living tissue, will cause destruction or irreversible alteration of such tissue by chemical action; or
2. any liquid having a pH of 2 or less or 12.5 or more; or
3. any liquid classified as corrosive by the U.S. Department of Transportation; or
4. any material exhibiting the characteristics of corrosivity in accordance with Title 22, California Code of Regulations §66261.22.

**Fire code official.** The Fire Marshal is the designated authority charged with the administration and enforcement of this code.

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**Secondary containment.** The level of containment that is external to and separate from primary containment and is capable of safely and securely containing the material, without discharge, for a period of time reasonably necessary to ensure detection and remedy of the primary containment failure.

**Health hazard - Other.** A hazardous material which affects target organs of the body, including but not limited to, those materials which produce liver damage, kidney damage, damage to the nervous system, act on the blood to decrease hemoglobin function, deprive the body tissue of oxygen or affect reproductive capabilities, including mutations (chromosomal damage), sensitizers or teratogens (effect on fetuses).

**Large-scale fire testing.** Testing a representative energy storage system that induces a significant fire into the device under test and evaluates whether the fire will spread to adjacent energy storage system units, surrounding equipment, or through an adjacent fire-resistance-rated barrier.

**Spill control.** That level of containment that is external to and separate from the primary containment and is capable of safely and securely containing the contents of the largest container and prevents the materials from spreading to other parts of the room.

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**Workstation.** A defined space or an independent principal piece of equipment using flammable or unstable (Class 3 or 4 as ranked by NFPA 704) hazardous materials where a specific function, laboratory procedure or research activity occurs. Approved or listed hazardous materials storage cabinets, flammable liquid storage cabinets or gas cabinets serving a workstation are included as part of the workstation. A workstation is allowed to contain ventilation equipment, fire protection devices, detection devices, electrical devices and other processing and scientific equipment.

**Unified Program Agency.** The City of Santa Clara Fire Department has been designated the Certified Program Agency by the State of California Environmental Protection Agency's (CalEPA). The CUPA protects Californians from hazardous waste and hazardous materials by ensuring consistency throughout the state regarding the implementation of administrative requirements, permits, inspections, and enforcement at the local regulatory level.

#### **15.60.140 Hazard communication**

California Fire Code Section 407.5 is hereby amended to read:

**407.5 Hazardous Materials Inventory Statement.** Each application for a permit shall submit a Hazardous Materials Inventory Statement (HMIS) in accordance with Section 5001.5.2 whenever hazardous materials are used.

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California Fire Code Section 407.6 is hereby amended to read:

**407.6 Hazardous Materials Business Plan (HMBP).** Where required by the fire code official, facilities shall submit a Hazardous Materials Business Plan (HMBP) as required by California Health & Safety Code (HSC), Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4. The HMBP shall be electronically submitted in accordance with the fire code official's requested timeframe and no less frequently than is required by the HSC.

California Fire Code Section 407.7 is hereby amended to read:

**407.7 Facility/Equipment closure plans.** The permit holder or applicant shall submit to the fire code official a facility/equipment closure plan in accordance with Section 5001.6.3 to terminate storage, dispensing, handling or use of hazardous materials.

#### **15.60.150 Fire apparatus access roads**

California Fire Code Section 503.1 is hereby amended to read: .

**503.1 Where required.** Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 and the Santa Clara Fire Department Apparatus Access Standard.

California Fire Code Section 503.2.1 is hereby amended to read:

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm) for engines, and 26 feet (7925 mm) for aerial fire apparatus exclusive of shoulders, except for approved gates or barricades in accordance with Sections 503.5.1 and 503.6. The unobstructed vertical clearance shall be a minimum of 13 feet 6 inches (4115 mm), or as determined by the fire code official.

California Fire Code Section 503.2.4 is hereby amended to read:

**503.2.4 Turning radius.** The required turning radius of a fire apparatus access road shall be a minimum of 30 feet (9144 mm) inside, and a minimum of 50 feet (15240 mm) outside.

California Fire Code Section 503.2.7 is hereby amended to read:

**503.2.7 Grade.** The maximum grade of a fire department apparatus access road shall not exceed 15-percent, unless approved by the fire code official.

California Fire Code Section 503.5 is hereby amended to read:

**503.5 Required gates or barricades.** The fire code official is authorized to require the installation and maintenance of gates or other approved barricades across fire apparatus access roads, trails, or other accessways, not including the public streets, alleys, or highways. The minimum width for commercial applications is 20 feet (6096 mm), and 14 feet (4268 mm) for single-family dwellings. Electric gate operators, where provided shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed, and installed to comply with the requirements of ASTM F2200.

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California Fire Code Section 503.6 is hereby amended to read:

**503.6 Security gates.** The installation of security gates across a fire apparatus access road shall be approved by the fire code official. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200. The minimum width for commercial applications is 20 feet (6096 mm), and 14 feet (4268 mm) for single-family dwellings.

**15.60.160 Access to building openings and roofs**

California Fire Code Section 504.5 is hereby added to read:

**504.5 Access Control Devices.** When access control devices including bars, grates, gates, electric or magnetic locks or similar devices, which would inhibit rapid fire department emergency access to within and throughout the building are installed, such devices shall be approved by the fire code official. All electrically powered access control devices shall be provided with an approved means for deactivation or unlocking from a single location or otherwise approved by the fire code official. Access control devices shall also comply with Chapter 10 of the California Fire Code.

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## **15.60.170 Premises identification**

California Fire Code is hereby amended by adding Section 505.1 to read:

**505.1 Address identification.** New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 6 inches (153 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained. The following is a guideline for adequate address number dimensions:

1. The number posted up to 49 feet from the public street shall be of one solid color which is contrasting to the background and be at least six (6) inches high with a half (1/2) inch stroke.
2. The number posted from 50 to 100 feet from the public street shall be of one solid color which is contrasting to the background and be at least six (6) inches high with a one (1) inch stroke.
3. The number posted over 100 to 199 feet from the public street shall be of one solid color which is contrasting to the background and be at least ten (10) inches high with a one and a half (1 1/2) inch stroke.

4. The number posted over 200 to 299 feet from the public street shall be of one solid color which is contrasting to the background and be at least ten (18) inches high with a two (2) inch stroke.
5. The number posted over 300 to 400 feet from the public street shall be of one solid color which is contrasting to the background and be at least ten (24) inches high with a two and a half (2½) inch stroke.

California Fire Code is hereby amended by adding Section 505.3 to read:

**505.3 Site directories.** When required by the fire code official, approved site directories, illustrating and identifying buildings, important site features, and access roads shall be installed and maintained at multi-building complexes.

#### **15.60.180 Emergency responder radio coverage**

California Fire Code Section 510.4.1.2 is hereby amended to read:

**510.4.1.2 Minimum signal strength out of the building.** The minimum outbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The outbound signal level shall be sufficient to provide not less than a DAQ of 3.4 or an equivalent SINR applicable to the technology for either analog or digital signals.

#### **15.60.190 Electrical equipment, wiring and hazards**

California Fire Code is hereby amended by adding Section 603.11 to read:

**603.11 Immersion Heaters.** All electrical immersion heaters used in dip tanks, sinks, vats and similar operations shall be provided with approved over-temperature controls and low liquid level electrical disconnects. Manual reset of required protection devices shall be provided.

### **15.60.200 Fuel-fired appliances**

California Fire Code is hereby amended by adding Section 605.5 to read:

**605.5 Portable unvented heaters.** Portable unvented fuel-fired heating equipment shall be prohibited in occupancies in Groups A, B, E, I, R-1, R-2, R2.1, R-3, R3.1 and R-4 and ambulatory care facilities.

California Fire Code is hereby amended by adding Section 605.5.2.1.1 to read:

**605.5.2.1.1 Prohibited locations.** The storage or use of portable outdoor gas-fired heating appliances is prohibited in any of the following locations:

1. Inside of any occupancy where connected to the fuel gas container.
2. Inside of tents, canopies and membrane structures.
3. On exterior balconies and rooftops.

### **15.60.210 Penetrations**

California Fire Code is hereby amended by adding Section 703.3 to read:

**703.3 Fire-resistant penetrations and joints.** In high-rise buildings, in buildings assigned to *Risk Category* III or IV, or in fire areas containing Group R occupancies with an occupant load greater than 100, and other occupancies as determined necessary special inspections for through-penetrations, membrane penetration firestops, fire resistant joint systems and perimeter fire containment systems that are tested and listed in accordance with CBC Sections 714.4.1.2, 714.5.1.2, 715.3.1 and 715.4 shall be in accordance with Section 1705.18.1 or 1705.18.2.

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**15.60.220 Decorative materials and artificial decorative vegetation in new and existing buildings**

California Fire Code Section 807.5.1.2.2 is hereby amended to read:

**807.5.1.2.2 Foam plastics, decorations, textile and film materials.** Foam plastics, textile and film materials and other decorative materials and materials containing foam plastics shall be in accordance with the following:

1. Exhibit booth construction shall have a maximum heat-release rate of 100 kilowatts when tested in accordance with UL 1975.
2. Decorative objects, including but not limited to mannequins, murals and signs, shall have a maximum heat-release rate of 150 kilowatts when tested in accordance with UL 1975.

Exception: When the aggregate area of murals, signs or similar decorative objects occupies less than 10 percent of the floor or wall area, this requirement may be waived by the fire code official.

3. Theater, motion picture and television stage settings with or without horizontal projections and simulated caves or caverns shall have a maximum heat-release rate of 100 kilowatts when tested in accordance with UL 1975.

California Fire Code Section 807.5.7 is hereby amended to read:

**807.5.7 Group F-1 motion picture and television production studio sound stages, approved production facilities and production locations without live audiences.**

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**807.5.7.1 Foam plastics, decorations, textile and film materials.** Foam plastics, textile and film materials and other decorative materials and materials containing foam plastics shall be in accordance with the following:

1. Exhibit booth construction shall have a maximum heat-release rate of 100 kilowatts when tested in accordance with UL 1975.
2. Decorative objects, including but not limited to mannequins, murals and signs, shall have a maximum heat-release rate of 150 kilowatts when tested in accordance with UL 1975.

Exception: When the aggregate area of murals, signs or similar decorative objects occupies less than 10 percent of the floor or wall area, this requirement may be waived by the fire code official.

3. Theater, motion picture and television stage settings with or without horizontal projections and simulated caves or caverns shall have a maximum heat-release rate of 100 kilowatts when tested in accordance with UL 1975.

#### **15.60.230 General – fire protection and life safety systems**

California Fire Code Section 901.6.2 is hereby amended to read:

**901.6.2 Integrated testing.** Where two or more fire protection or life safety systems are interconnected, the intended response of subordinate fire protection and life safety systems shall be verified when required testing of the initiating system is conducted. In addition, integrated testing shall be performed in accordance with Sections 901.6.2.1 and 901.6.2.2.

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California Fire Code Section 901.6.2.1 is hereby amended to read:

**901.6.2.1 High-rise buildings.** For high-rise buildings, integrated testing shall comply with NFPA 4, with an integrated test performed prior to issuance of the certificate of occupancy and at intervals not exceeding 10 years, unless otherwise specified by an integrated system test plan prepared in accordance with NFPA 4. If an equipment failure is detected during integrated testing, a repeat of the integrated test shall not be required, except as necessary to verify operation of fire protection or life safety functions that are initiated by equipment that was repaired or replaced. For existing buildings, the testing timeframe shall be specified by the integrated systems test plan prepared in accordance with NFPA 4 as approved by the fire code official.

California Fire Code Section 901.6.2.2 is hereby amended to read:

**901.6.2.2 Smoke control systems.** Where a fire alarm system is integrated with a smoke control system as outlined in Section 909, integrated testing shall comply with NFPA 4, with an integrated test performed prior to issuance of the certificate of occupancy and at intervals not exceeding 10 years, unless otherwise specified by an integrated system test plan prepared in accordance with NFPA 4. If an equipment failure is detected during integrated testing, a repeat of the integrated test shall not be required, except as necessary to verify operation of fire protection or life safety functions that are initiated by equipment that was repaired or replaced. For existing buildings, the testing timeframe shall be specified by the integrated systems test plan prepared in accordance with NFPA 4 as approved by the fire code official.

California Fire Code Section 901.6.3 is hereby amended to read:

**901.6.3 Records.** Records of all system inspections, tests and maintenance required by the referenced standard shall be maintained on the premises for a minimum of five years. See 907.7 & 907.8 for fire alarm system inspection, testing and maintenance documentation requirements. When required, records shall be uploaded to an electronic inspection database of the fire departments choosing at no cost to the jurisdiction.

#### **15.60.240 Automatic sprinkler systems**

California Fire Code Section 903.2 is hereby amended to read:

**903.2 Where required.** Approved automatic sprinkler systems in new and existing buildings and structures shall be provided in the locations described in this Section or Sections 903.2.1 through 903.2.12 whichever is the more restrictive and Sections 903.2.14 through 903.2.21.

For the purposes of this section, firewalls and fire barriers used to separate building areas shall be constructed in accordance with the California Building Code and shall be without openings or penetrations.

1. An automatic sprinkler system shall be installed throughout all new buildings and structures greater than 1,200 square feet.

**Exception:** Group S-2 or U occupancies used exclusively for vehicle parking or photovoltaic arrays that do not exceed 5000 square feet.

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2. An approved automatic fire sprinkler system shall be installed in new manufactured homes (as defined in California Health and Safety Code Sections 18007 and 18009) and multifamily manufactured homes with two dwelling units (as defined in California Health and Safety Code Section 18008.7) in accordance with Title 25 of the California Code of Regulations.
3. An automatic sprinkler system shall be provided throughout existing Group A, B, E, F, I, L, M, R, S and U buildings and structures, when additions are made that increase the buildings square foot by more than 1200 square feet or the building total square footage exceeds 3,600 square feet.
4. Any change of occupancy or change in use of any building when that change in use would place the building into a more hazardous division of the same occupancy group.

#### **15.60.250 Smoke control systems**

California Fire Code Section 909.20.1 is hereby amended to read:

**909.20.1 Schedule:** A routine maintenance and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established and operational testing must occur at least annually.

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## **15.60.260 Definitions – energy storage systems**

California Fire Code Section 1207.2.2.1 is hereby amended to read:

**1202.1 Definitions.** The following terms are defined in Chapter 2:

BATTERY SYSTEM, STATIONARY STORAGE.

BATTERY TYPES.

CAPACITOR ENERGY STORAGE SYSTEM.

CRITICAL CIRCUIT.

EMERGENCY POWER SYSTEM.

ENERGY STORAGE MANAGEMENT SYSTEMS.

ENERGY STORAGE SYSTEM (ESS).

ENERGY STORAGE SYSTEM, ELECTROCHEMICAL.

ENERGY STORAGE SYSTEM, MOBILE.

ENERGY STORAGE SYSTEM, WALK-IN UNIT.

ENERGY STORAGE SYSTEM CABINET.

ENERGY STORAGE SYSTEM COMMISSIONING.

ENERGY STORAGE SYSTEM DECOMMISSIONING.

FUEL CELL POWER SYSTEM, STATIONARY.

LARGE-SCALE FIRE TESTING

PORTABLE GENERATOR.

STANDBY POWER SYSTEM.

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## **15.60.270 Electrical energy storage systems (ESS)**

California Fire Code Section 1207.1.5 is hereby amended to read:

**1207.1.5 Large-scale fire test.** Where required elsewhere in Section 1207, large scale fire testing shall be conducted in accordance with NFPA 855, and UL 9540A. The testing shall be conducted or witnessed and reported by an approved testing laboratory and show that a fire involving one ESS will not propagate to an adjacent ESS, and where installed within buildings, enclosed areas and walk-in units will be contained within the room, enclosed area or walk-in unit for a duration equal to the fire-resistance rating of the room separation specified in Section 1207.7.4. The test report shall be provided to the fire code official for review and approval in accordance with Section 104.8.2.

California Fire Code Section 1207.2.2.1 is hereby amended to read:

**1207.2.2.1 Ongoing inspection and testing.** Systems that monitor and protect the ESS installation shall be inspected and tested in accordance with the manufacturer's ins instructions and the operation and maintenance manual. Inspection and testing records shall be maintained in the operation and maintenance manual and made available to the fire code official upon request.

California Fire Code Section 1207.5 is hereby amended to read:

**1207.5.2 Maximum allowable quantities.** Fire areas within rooms, areas and walk-in units containing electrochemical ESS shall not exceed the maximum allowable quantities in Table 1207.5. The allowable number of fire areas, maximum allowable quantity, and fire-resistance rating of fire-barriers shall comply with Table 1207.5.1.

**Exceptions:**

Where approved by the fire code official, rooms, areas and walk-in units containing electrochemical ESS that exceed the amounts in Table 1207.5 shall be permitted based on a hazardous mitigation analysis in accordance with Section 1207.1.4 and large-scale fire testing complying with Section 1207.1.5.

1. Lead-acid and nickel-cadmium battery systems installed in facilities under the exclusive control of communications utilities and operating at less than 50 VAC and 60 VDC in accordance with NFPA 76.

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2. Dedicated-use buildings in compliance with Section 1207.7.1.

TABLE 1207.5.1 DESIGN AND NUMBER OF ESS FIRE AREAS				
STORY		PERCENTAGE OF MAXIMUM ALLOWABLE QUANTITY PER FIRE AREA	NUMBER OF FIRE AREAS PER STORY	FIRE- RESISTANCE RATING FOR FIRE BARRIERS IN HOURS
Above grade plan	Higher than 9	25	1	3
	7-9	50	2	2
	6	50	2	2
	5	50	2	2
	4	75	4	2
	3	100	6	2
	2	100	6	2
	1	100	6	2
Below grade plan	1	100	4	3
	2	50	2	3
	Lower than 2	Not Allowed	Not Allowed	Not Allowed

California Fire Code Section 1207.5.5 is hereby amended to read:

**1207.5.5 Fire suppression systems.** Rooms and areas within buildings and walk-in units containing electrochemical ESS shall be protected by an automatic fire suppression system designed and installed in accordance with one of the following:

1. An automatic sprinkler system designed and installed in accordance with Section 903.3.1.1 with a minimum density of 0.3 gpm/ft<sup>2</sup> (1.14 L/min) based on the fire area or 2,500 square-foot (232 m<sup>2</sup>) design area, whichever is larger.
2. Where approved, an automatic sprinkler system designed and installed in accordance with Section 903.3.1.1 with a sprinkler hazard classification based on large-scale fire testing complying with Section 1207.1.5.
3. The following alternative automatic fire-extinguishing systems designed and installed in accordance with Section 904, provided that the installation is approved by the fire code official based on large-scale fire testing complying with Section 1207.1.5:
  - 3.1. NFPA 12, Standard on Carbon Dioxide Extinguishing Systems.
  - 3.2. NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection.
  - 3.3. NFPA 750, Standard on Water Mist Fire Protection Systems.
  - 3.4. NFPA 2001, Standard on Clean Agent Fire-Extinguishing Systems.
  - 3.5. NFPA 2010, Standard for Fixed Aerosol Fire-Extinguishing Systems.

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**Exception:** Fire suppression systems for lead-acid and nickel-cadmium battery systems at facilities under the exclusive control of communications utilities that operate at less than 50 VAC and 60 VDC shall be provided where required by NFPA 76.

California Fire Code Section 1207.11.3 is hereby amended to read:

**1207.11.3 Location.** ESS shall be installed only in the following locations:

1. Detached garages and detached accessory structures.
2. Attached garages separated from the dwelling unit living space and sleeping units in accordance with Section R302.6.
3. Outdoors or on the exterior side of the exterior walls not less than 3 feet (914 mm) from doors and windows directly entering the dwelling unit and not below or above any emergency escape and rescue openings.
4. Enclosed utility closets, basements, storage or utility spaces within dwelling units with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than 5/8-inch (15.9 mm) Type X gypsum wallboard.
5. ESS shall not be installed in sleeping rooms, closets, spaces opening directly into sleeping rooms or in habitable spaces of dwelling units.

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California Fire Code Section 1207.11.6 is hereby amended to read:

**1207.11.6 Fire detection.** ESS installed in Group R-3 and R-4 occupancies shall comply with the following:

1. Rooms and areas within dwellings units, sleeping units, basements and attached garages in which ESS are installed shall be protected by smoke alarms in accordance with Section 907.2.11.
2. A listed heat alarm interconnected to the smoke alarms shall be installed in locations within dwelling units, sleeping units and attached garages where smoke alarms cannot be installed based on their listing.

Exceptions:

1. A listed heat detector may be used in place of a heat alarm, so long as it is interconnected with devices that provide an audible alarm at all sleeping areas.
2. A fire sprinkler associated with an approved automatic sprinkler system that triggers an audible alarm upon activation of the waterflow switch, may be used in place of a heat alarm.

#### **15.60.280 Fire safety during construction and demolition**

California Fire Code is hereby amended by adding Section 3305.5 to read:

**3305.5 Fire watch.** Where required by the fire code official or the site safety plan established in accordance with Section 3303.1, a fire watch shall be provided for building demolition and for building construction. Fire watch is not intended to facilitate occupancy during ongoing construction in a new building.

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California Fire Code is hereby amended by adding Section 3305.6 to read:

**3305.6 Fire Walls.** When fire walls are required in combustible construction, the wall construction shall be completed (with all openings protected) immediately after the building is sufficiently weather-protected at the location of the wall(s).

**15.60.290 Owner's responsibility for fire protection and site security**

California Fire Code is hereby amended by adding Section 3308.11 to read:

**3308.11 Fire protection.** All wood frame construction projects exceeding three stories in height, except R-3 occupancies, shall be provided with a listed fire alarm system during construction. The fire alarm system shall be monitored by a listed monitoring company. A permit for the installation and subsequent modifications of the system are required. The design and installation shall comply with the fire department's standards.

California Fire Code is hereby amended by adding Section 3308.12 to read:

**3308.12. Construction site security.** Construction projects exceeding three stories in height, or when determined necessary by the fire code official shall have an electronic security system installed, except for R-3 occupancies during construction. The electronic data is required to be maintained 24-hours a day, seven days a week. The data is required to be maintained for a minimum of 30-days off-site and made available to the fire department upon request. The electronic security camera layout plan shall be incorporated into the construction safety plan and is required to be approved prior to the start of construction.

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California Fire Code is hereby amended by adding Section 3308.13. to read:

**3308.13. Phased occupancy requests.** When occupancy of one phase of a construction project is requested prior to the completion of the entire project, a phased occupancy plan is required to be submitted to the fire department for approval. A fire protection engineering firm or fire protection engineer is required to develop the plan, supervise the implementation, and conduct field compliance inspections on a frequency determined necessary by the fire code official, but not less than once a week.

#### **15.60.300 Access for emergency response**

California Fire Code is hereby amended by adding Section 3311.1. to read:

**3311.1 Required access.** 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.

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**3311.1.1 Fire department apparatus access roadways:** All construction sites shall be accessible by fire department apparatus by means of roadways having an all-weather driving service of not less than 20ft. of unobstructed width. The roads shall have the ability to withstand the live loads of fire apparatus and have a minimum 13 ft. 6 in. of vertical clearance. Dead end fire access roads in excess of 150 ft. in length shall be provided with approved turnarounds. When approved by the Fire Code Official, temporary access roadways may be utilized until such time that the permanent roadways are installed. As a minimum, the roadway shall consist of a compacted sub base and six (6) inches of road base material (Class 2 aggregate base rock) both compacted to a minimum 95% and sealed. The perimeter edges of the roadway shall be contained and delineated by curb and gutter or other approved method. The use of geotextile reinforcing fabric underlayment or soils lime-treatment may be required if so determined by the project civil engineer. Provisions for surface drainage shall also be provided where necessary. The integrity of the roadway shall be maintained at all times.

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### **15.60.310 Means of egress**

California Fire Code Section 3312.1 is hereby amended to read:

**3312.1 Stairways Required.** Each level above the first story in multi-story buildings that require two exit stairways shall be provided with at least two usable exit stairways after the floor decking is installed. The stairways shall be continuous and discharge to grade level. Stairways serving more than two floor levels shall be enclosed (with openings adequately protected) after exterior walls/windows are in place. Exit stairs in new and in existing, occupied buildings shall be lighted and maintained clear of debris and construction materials at all times.

**Exception:** For multi-story buildings, one of the required exit stairs may be obstructed on not more than two contiguous floor levels for the purposes of stairway construction (i.e., installation of gypsum board, painting, flooring, etc.).

California Fire Code is hereby amended by adding Section 3312.4 to read:

**3312.4 Required Means of Egress.** All buildings under construction shall have at least one unobstructed means of egress. All means of egress shall be identified in the written fire safety plan as required by Section 3303.1.

### **15.60.320 Completion before occupancy**

California Fire Code is hereby amended by adding Section 3315.1 to read:

**3315.1 Completion before occupancy.** In buildings where an automatic sprinkler system is required by this code or the California Building Code, it shall be unlawful to occupy any portion of a building or structure until the automatic sprinkler system installation has been tested and approved.

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In new buildings of combustible construction where, automatic fire sprinkler systems are required to be installed, the system shall be placed in service as soon as possible. Immediately upon the completion of sprinkler pipe installation on each floor level, the piping shall be hydrostatically tested and inspected. After inspection approval from the fire department, each floor level of sprinkler piping shall be connected to the system supply riser and placed into service with all sprinkler heads uncovered. Protective caps may be installed on the active sprinklers during the installation of drywall, texturing and painting, but shall be removed immediately after this work is completed.

#### **15.60.330 General – hazardous materials**

California Fire Code Section 5001.2.2.2 is hereby amended to read:

**5001.2.2.2 Health Hazards.** The material categories listed in this section are classified as health hazards. A material with a primary classification as a health hazard can also pose a physical hazard.

1. Highly toxic and toxic materials.
2. Corrosive materials.
3. Health hazards – Other

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California Fire Code Section 5001.5.3 is hereby amended to read:

**5001.5.3 Hazardous materials business plan (HMBP).** Where required by the fire code official, facilities shall submit a Hazardous Materials Business Plan (HMBP) as required by California Health & Safety Code (HSC), Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4. The HMBP shall be electronically submitted in accordance with the fire code official's requested timeframe and no less frequently than is required by the HSC.

#### **15.60.340 Definitions – hazardous materials**

California Fire Code Section 5002.1 is hereby amended to read:

**5002.1 Definitions.** The following terms are defined in Chapter 2:

**BOILING POINT.**  
**CEILING LIMIT.**  
**CHEMICAL.**  
**CHEMICAL NAME.**  
**CLOSED CONTAINER.**  
**CONTAINER.**  
**CONTROL AREA.**  
**CYLINDER.**  
**DAY BOX.**  
**DEFLAGRATION.**  
**DESIGN PRESSURE.**  
**DETACHED BUILDING.**  
**DISPENSING.**  
**EXCESS FLOW CONTROL.**  
**EXHAUSTED ENCLOSURE.**  
**EXPLOSION.**  
**FLAMMABLE VAPORS OR FUMES.**  
**GAS CABINET.**  
**GAS ROOM.**  
**HANDLING.**  
**HAZARDOUS MATERIALS.**  
**HEALTH HAZARD.**  
**HEALTH HAZARD – OTHER.**  
**IMMEDIATELY DANGEROUS TO LIFE AND**

HEALTH (IDLH).  
INCOMPATIBLE MATERIALS.  
LIQUID.  
LOWER EXPLOSIVE LIMIT (LEL).  
LOWER FLAMMABLE LIMIT (LFL).  
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA.  
NORMAL TEMPERATURE AND PRESSURE (NTP).  
OUTDOOR CONTROL AREA.  
PERMISSIBLE EXPOSURE LIMIT (PEL).  
PESTICIDE.  
PHYSICAL HAZARD.  
PRESSURE VESSEL.  
SAFETY CAN.  
SAFETY DATA SHEET (SDS).  
SECONDARY CONTAINMENT.  
SEGREGATED.  
SOLID.  
SPILL CONTROL.  
STORAGE, HAZARDOUS MATERIALS.  
SYSTEM.  
TANK, ATMOSPHERIC.  
TANK, PORTABLE.  
TANK, STATIONARY.  
TANK VEHICLE.  
UNAUTHORIZED DISCHARGE.  
USE (MATERIAL).  
VAPOR PRESSURE.

#### **15.60.350 General requirements – hazardous materials**

California Fire Code is hereby amended by adding Section 5003.1.5 to read:

**5003.1.5 Health Hazards - Other.** The storage, use and handling of materials classified as other health hazards including carcinogens, irritants and sensitizers in amounts exceeding 810 cubic feet for gases, 55 gallons for liquids and 5,000 pounds for solids shall be in accordance with Section 5003.

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California Fire Code is hereby amended by adding Section 5003.1.6 to read:

**5003.1.6 Additional Spill Control and Secondary Containment Requirements.**

In addition to the requirements set forth in Section 5004.2. An approved containment system is required for any quantity of hazardous materials that are liquids or solids at normal temperature, and pressure (NTP) where a spill is determined to be a plausible event and where such an event would endanger people, property or the environment. The approved containment system may be required to include a combination of spill control and secondary containment meeting the design and construction requirements set forth in Section 5004.2.

California Fire Code Section 5003.2.2.1 is hereby amended to read:

**5003.2.2.1 Design and Construction.** Piping, tubing, valves, fittings and related components used for hazardous materials shall be in accordance with the following:

1. Piping, tubing, valves, fittings and related components shall be designed and fabricated from materials compatible with the material to be contained and shall be of adequate strength and durability to withstand the pressure, structural and seismic stress, and exposure to which they are subject.
2. Piping and tubing shall be identified in accordance with ASME A13.1 and the Santa Clara Fire Department Marking Requirements and Guidelines for Hazardous Materials and Hazardous Waste to indicate the material conveyed.

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3. Readily accessible manual valves or automatic remotely activated fail-safe emergency shutoff valves shall be installed on supply piping and tubing at the following locations:
  1. The point of use.
  2. The tank, cylinder or bulk use.
4. Manual emergency shutoff valves and controls for remotely activated emergency shutoff valves shall be identified and the location shall be clearly visible accessible and indicated by means of a sign.
5. Backflow prevention or check valves shall be provided when the backflow of hazardous materials could create a hazardous condition or cause the unauthorized discharge of hazardous materials.
6. Where gases or liquids having a hazard ranking of:
  1. Health Class 3 or 4
  2. Flammability Class 4
  3. Instability Class 4

in accordance with NFPA 704 are carried in pressurized piping above 15 pounds per square inch gauge (psig)(103 Kpa), an approved means of leak detection, emergency shutoff or excess flow control shall be provided. Where the piping originates from within a hazardous material storage room or area, the excess flow control shall be located within the storage room or area. Where the piping originates from a bulk source, the excess flow control shall be located as close to the bulk source as practical.

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Exceptions:

1. Piping for inlet connections designed to prevent backflow.
  2. Piping for pressure relief devices.
7. Secondary containment or equivalent protection from spills or leaks shall be provided for piping for liquid hazardous materials and for highly toxic and toxic corrosive gases above threshold quantities listed in Tables 6004.2 and 6004.3. Secondary containment includes but is not limited to double-walled piping.

Exceptions:

1. Secondary containment is not required for toxic corrosive gases if the piping is constructed of inter materials.
  2. Piping under sub-atmospheric conditions if the piping is equipped with an alarm and fail-safe-to-close valve activated by a loss of vacuum.
8. Expansion chambers shall be provided between valves whenever the regulated gas may be subjected to thermal expansion. Chambers shall be sized to provide protection for piping and instrumentation and to accommodate the expansion of regulated materials.

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California Fire Code Section 5003.2.2.2 is hereby amended to read:

**5003.2.2.2 Additional Regulation for Supply Piping for Health Hazard Materials.**

Supply piping and tubing for gases and liquids having a health hazard ranking of 3 or 4 shall be in accordance with ASME B31.3 and the following:

1. Piping and tubing utilized for the transmission of toxic, highly toxic, or highly volatile corrosive liquids and gases shall have welded or brazed connections throughout except for connections within an exhausted enclosure if the material is a gas, or an approved method of drainage or containment is provided for connections if the material is a liquid.
2. Piping and tubing shall not be located within corridors, within any portion of a means of egress required to be enclosed in fire-resistance-rated construction or in concealed spaces in areas not classified as Group H Occupancies.
3. All primary piping for toxic, highly toxic and moderately toxic gases shall pass a helium leak test of  $1 \times 10^{-9}$  cubic centimeters/second where practical, or shall pass testing in accordance with an approved, nationally recognized standard. Tests shall be conducted by a qualified "third party" not involved with the construction of the piping and control systems.

**Exception:** Piping and tubing within the space defined by the walls of corridors and the floor or roof above or in concealed space above other occupancies when installed in accordance with Section 415.11.7.4 of the California Building Code as required for Group H, Division 5 Occupancies.

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California Fire Code is hereby amended by adding Section 5003.5.2 to read:

**5003.5.2 Ventilation Ducting.** Ducts venting hazardous materials operations shall be labeled with the hazard class of the material being vented and the direction of flow.

California Fire Code is hereby amended by adding Section 5003.5.3 to read:

**5003.5.3 "H" Occupancies.** In "H" occupancies, all piping and tubing may be required to be identified when there is any possibility of confusion with hazardous materials transport tubing or piping. Flow direction indicators are required.

California Fire Code Section 5003.10.4 is hereby amended to read:

**5003.10.4 Elevators utilized to transport hazardous materials.**

**5003.10.4.1** When transporting hazardous materials, elevators shall have no other passengers other than the individual(s) handling the chemical transport cart.

**5003.10.4.1.1** When transporting cryogenic or liquefied compressed gases, there shall be no occupants in the elevator.

**5003.10.4.2** Hazardous materials liquid containers shall have a maximum capacity of 20 liters (5.28 gal).

**5003.10.4.3** Toxic, highly toxic, asphyxiate gases, and corrosive gases shall be limited to a container of a maximum water capacity of 1 lb.

**5003.10.4.4** When transporting cryogenic or liquefied compressed gases, means shall be provided to prevent the elevator from being summoned to other floors.

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## 15.60.360 Storage

California Fire Code Section 5004.2.1 is hereby amended to read:

**5004.2.1 Spill Control for Hazardous Material Liquids.** Rooms, buildings or areas used for storage of hazardous material liquids shall be provided with spill control to prevent the flow of liquids to adjoining areas. Floors in indoor locations and similar surfaces in outdoor locations shall be constructed to contain a spill from the largest single vessel by one of the following methods:

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

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

California Fire Code Section 5004.2.2.2 is hereby amended to read:

**5004.2.2.2 Incompatible Materials.** Incompatible materials shall be separated from each other in independent secondary containment systems.

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### **15.60.370 Definitions – corrosive materials**

California Fire Code Section 5402.1 is hereby amended to read:

**5402.1 Definition.** The following term is defined in Chapter 2:

**CORROSIVE.  
CORROSIVE LIQUIDS**

### **15.60.380 General – explosives and fireworks**

California Fire Code Section 5601.1.3 is hereby amended to read:

**5601.1.3 Fireworks.** The possession, manufacture, storage, sale, handling, and use of fireworks, including those fireworks classified as Safe and Sane by the California State Fire Marshal, are prohibited.

**Exceptions:** The use of fireworks for fireworks displays, pyrotechnics before a proximate audience and pyrotechnic special effects in motion pictures television, theatrical or group entertainment productions as allowed by Section 5608.

### **15.60.390 Fireworks displays**

California Fire Code Section 5608.1 is hereby amended to read:

**5608.1 General.** Outdoor fireworks displays, use of pyrotechnics before a proximate audience and pyrotechnic special effects in motion picture, television, theatrical and group entertainment productions shall comply with California Code of Regulations, Title 19, Division 1, Chapter 6 Fireworks and this section. Permits can be revoked, denied, or modified to address extreme weather events, poor air quality, or noise when deemed necessary for the protection of the public health and well-being by the fire code official.

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**5608.1.1 Scope.** Fireworks and temporary storage, use, and handling of pyrotechnic special effects material used in motion pictures, television, and theatrical and group entertainment productions shall be in accordance with California Code of Regulations, Title 19, Division 1, Chapter 6 Fireworks.

**5608.1.2 Additional Safety Requirements.** When determined necessary the fire code official has the authority to require additional safety measures be implemented for the storage and/or use of pyrotechnics of any classification.

#### **15.60.400 Storage – hazardous materials**

California Fire Code is hereby amended by adding Section 5704.2.7.5.8 to read:

**5704.2.7.5.8 Overfill Prevention.** An approved means or method in accordance with Section 5704.2.9.7.5 shall be provided to prevent the overfill of all Class I, II and IIIA liquid storage tanks. Storage tanks in refineries, bulk plants or terminals regulated by Sections 5706.4 or 5706.7 shall have overfill protection in accordance with API 2350.

**Exception:** Outside aboveground tanks with a capacity of 1320 gallons (5000 L) or less need only comply with Section 5704.2.9.7.5 (Item 1, Sub-item 1.1).

California Fire Code is hereby amended by adding Section 5704.2.7.5.9 to read:

**5704.2.7.5.9 Automatic Filling of Tanks.** Systems that automatically fill flammable or combustible liquid tanks shall be equipped with overfill protection, approved by the fire code official that sends an alarm signal to a constantly attended location and immediately stops the filling of the tank. The alarm signal and automatic shutoff shall be tested on an annual basis and records of such testing shall be maintained on-site for a period of five (5) years.

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California Fire Code is hereby amended by adding Section 5704.2.13.1.4 to read:

**5704.2.13.1.4 Tanks abandoned in place.** Tanks abandoned in place, when approved by the fire code official, shall be as follows:

1. Flammable and combustible liquids shall be removed from the tank and connected piping.
2. The suction, inlet, gauge, vapor return and vapor lines shall be disconnected.
3. The tank shall be filled completely with an approved inert solid material.
4. Remaining underground piping shall be capped or plugged.
5. A record of tank size, location and date of abandonment shall be retained.
6. All exterior above-grade fill piping shall be permanently removed when tanks are abandoned or removed.

#### **15.60.410 On-demand mobile fueling**

California Fire Code is hereby amended by adding Section 5707.3.3 to read:

**5707.3.3 Site plan.** A site plan shall be developed for each location at which mobile fueling occurs. The site plan shall be in sufficient detail to indicate: all buildings, structures, lot lines, property lines, and appurtenances on site and their use or function; all uses adjacent to the lot lines of the site; fueling locations, the locations of all storm drain openings and adjacent waterways or wetlands; information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and the scale of the site plan.

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## **15.60.420 Mobile gaseous fueling of hydrogen-fueled vehicles**

California Fire Code is hereby amended by adding Section 5809.3 to read:

**5809.3.4 Site plan.** For other than emergency roadside service, a site plan shall be developed for each location at which mobile gaseous hydrogen fueling occurs. The site plan shall be in sufficient detail to indicate: all buildings, structures, lot lines, property lines and appurtenances on site and their use and function, and the scale of the site plan.

## **15.60.430 Highly toxic and toxic compressed gases**

California Fire Code Section 6004.1 is hereby amended to read:

**6004.1 General.** The storage and use of highly toxic and toxic compressed gases shall comply with this section. Materials stored and used as a gas whether or not the material meets the definition of a compressed gas, and meets the definition of a highly toxic, and toxic shall comply with this Section.

**6004.1.1 Special limitations for indoor storage and use by occupancy.** The indoor storage and use of highly toxic, and toxic compressed gases in certain occupancies shall be subject to the limitations contained in Sections 6004.1.1.1 through 6004.1.1 .3.

**6004.1.1.1 Group A, E, I or U occupancies.** Highly toxic and toxic compressed gases shall not be stored or used within Group A, E, I or U occupancies.

**Exception:** Cylinders not exceeding 20 cubic feet (0.566 m<sup>3</sup>) at normal temperature and pressure (NTP) are allowed within gas cabinets or fume hoods.



**6004.1.1.2 Group R occupancies.** Highly toxic, and toxic compressed gases shall not be stored or used in Group R occupancies.

**6004.1.1.3 Offices, retail sales and classrooms.** Highly toxic, and toxic compressed gases shall not be stored or used in offices, retail sales or classroom portions of Group B, F, M or S occupancies.

**Exception:** In classrooms of Group B occupancies, cylinders with a capacity not exceeding 20 cubic feet (0.566 m<sup>3</sup>) at NTP are allowed in gas cabinets or fume hoods.

California Fire Code is hereby amended by adding Section 6004.2.1.4 to read:

**6004.2.1.4 Quantities exceeding the minimum threshold quantities but not exceeding the maximum allowable quantities per control area.** The indoor storage or use of highly toxic, and toxic gases in amounts exceeding the minimum threshold quantities per control area set forth in Table 6004.2.1.4 but not exceeding maximum allowable quantity per control area set forth in Table 5003.1.1(2) shall be in accordance with Sections 5001, 5003, 6001, 6004.1, and 6004.4.

California Fire Code is hereby amended by adding Table 6004.2.1.4 to read:

TABLE 6004.2.1.4 Minimum Threshold Quantities for Highly Toxic and Toxic Gases for Indoor Storage and Use	
Highly Toxic	20 cubic feet
Toxic	405 cubic feet

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California Fire Code is hereby amended by adding Section 6004.2.2.10.1 to read:

**6004.2.2.10.1 Alarms.** The gas detection system shall initiate a local alarm and transmit a signal to a constantly attended control station when a short-term hazard condition is detected. The alarm shall be both audible and visible and shall provide warning both inside and outside the area where gas is detected. The audible alarm shall be distinct from all other alarms.

California Fire Code is hereby amended by adding Section 6004.4 to read:

**6004.4 General indoor requirements.** The general requirements applicable to the indoor storage and use of highly toxic, and toxic compressed gases shall be in accordance with Sections 6004.4 through 6004.4.8.2.

**6004.4.1 Cylinder and tank location.** Cylinders shall be located within gas cabinets, exhausted enclosures or gas rooms. Portable and stationary tanks shall be located within gas rooms or exhausted enclosures.

**Exceptions:** Where a gas detection system is provided in accordance with 6004.4.8

**6004.4.2 Ventilated areas.** The room or area in which gas cabinets or exhausted enclosures are located shall be provided with exhaust ventilation. Gas cabinets or exhausted enclosures shall not be used as the sole means of exhaust for any room or area.

**6004.4.3 Piping and controls.** In addition to the requirements of Section 5003.2.2, piping and controls on stationary tanks, portable tanks, and cylinders shall comply with the following requirements:

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1. Stationary tanks, portable tanks, and cylinders in use shall be provided with a means of excess flow control on all tank and cylinder inlet or outlet connections.

Exceptions:

1. Inlet connections designed to prevent backflow.
2. Pressure relief devices.

**6004.4.4 Gas rooms.** Gas rooms shall comply with Section 5003.8.4 and both of the following requirements:

1. The exhaust ventilation from gas rooms shall be directed to an exhaust system.
2. Gas rooms shall be equipped with an approved automatic sprinkler system. Alternative fire- extinguishing systems shall not be used.

**6004.4.5 Treatment systems.** The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, required in Section 6004.4.1 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Chapter 5 of the California Mechanical Code.

**Exceptions:**

1. Highly toxic, and toxic gases - storage. A treatment system is not required for cylinders, containers and tanks in storage where all of the following controls are provided:

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1.1 Valve outlets are equipped with gas- tight outlet plugs or caps.

1.2 Hand wheel-operated valves have handles secured to prevent movement.

1.3 Approved containment vessels or containment systems are provided in accordance with Section 6004.2.2.3.

2. Highly toxic, and toxic gases - use. Treatment systems are not required for highly toxic, and toxic gases supplied by stationary tanks, portable tanks, or cylinders where a gas detection system complying with Section 6004.4.8 and listed or approved automatic-closing fail-safe valves are provided. The gas detection system shall have a sensing interval not exceeding 5 minutes. Automatic-closing fail-safe valves shall be located immediately adjacent to cylinder valves and shall close when gas is detected at the permissible exposure limit (PEL) by a gas sensor monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room.

**6004.4.5.1 Design.** Treatment systems shall be capable of diluting, adsorbing, absorbing, containing, neutralizing, burning or otherwise processing the contents of the largest single vessel of compressed gas.

Where a total containment system is used, the system shall be designed to handle the maximum anticipated pressure of release to the system when it reaches equilibrium.

**6004.4.5.2 Performance.** Treatment systems shall be designed to reduce the maximum allowable discharge concentrations of the gas to one-half immediately dangerous to life and health (IDLH) at the point of discharge to the atmosphere. Where more than one gas is emitted to the treatment system, the treatment system shall be designed to handle the worst-case release based on the release rate, the quantity and the IDLH for all compressed gases stored or used.

**6004.4.5.3 Sizing.** Treatment systems shall be sized to process the maximum worst-case release of gas based on the maximum flow rate of release from the largest vessel utilized. The entire contents of the largest compressed gas vessel shall be considered.

**6004.4.5.4 Stationary tanks.** Stationary tanks shall be labeled with the maximum rate of release for the compressed gas contained based on valves or fittings that are inserted directly into the tank. Where multiple valves or fittings are provided, the maximum flow rate of release for valves or fittings with the highest flow rate shall be indicated. Where liquefied compressed gases are in contact with valves or fittings, the liquid flow rate shall be utilized for computation purposes. Flow rates indicated on the label shall be converted to cubic feet per minute (cfm/min) (m<sup>3</sup>/s) of gas at normal temperature and pressure (NTP).

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**6004.4.5.5 Portable tanks and cylinders.** The maximum flow rate of release for portable tanks and cylinders shall be calculated based on the total release from the cylinder or tank within the time specified in Table 6004.4.6 Where portable tanks or cylinders are equipped with approved excess flow or reduced flow valves, the worst-case release shall be determined by the maximum achievable flow from the valve as determined by the valve manufacturer or compressed gas supplier. Reduced flow and excess flow valves shall be permanently marked by the valve manufacturer to indicate the maximum design flow rate. Such markings shall indicate the flow rate for air under normal temperature and pressure.

**6004.4.6. Emergency power.** Emergency power shall be provided for the following systems in accordance with Section 604:

1. Exhaust ventilation system.
2. Treatment system.
3. Gas detection system.
4. Smoke detection system.

**6004.3.6.1 Fail-safe systems.** Emergency power shall not be required for mechanical exhaust ventilation and treatment systems where approved fail-safe systems are installed and designed to stop gas flow.

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**6004.4.7 Automatic fire detection system.** An approved automatic fire detection system shall be installed in rooms or areas where highly toxic, and toxic compressed gases are stored or used. Activation of the detection system shall sound a local alarm. The fire detection system shall comply with Section 907.

**6004.4.8 Gas detection system.** A gas detection system complying with Section 916 shall be provided to detect the presence of gas at or below the PEL or ceiling limit of the gas for which detection is provided.

**Exceptions:**

1. A gas detection system is not required for toxic gases when the physiological warning threshold level for the gas is at a level below the accepted PEL for the gas.
2. A gas detection system is not required for highly toxic, and toxic gases where cylinders, portable tanks, and all non-continuously welded connects are within a gas cabinet or exhausted enclosures.

**6004.4.8.1 Alarms.** The gas detection system shall initiate a local alarm and transmit a signal to an approved location.

**6004.4.8.2 Shut off of gas supply.** The gas detection system shall automatically close the shut off valve at the source on gas supply piping and tubing related to the system being monitored for whichever gas is detected.

**Exception:** Emergency shutoff valves that are ready access and constantly attended/supervised.

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#### **15.60.440 General – liquefied petroleum gases**

California Fire Code Section 6101.3 is hereby amended to read:

**6101.3 Construction documents.** Where a LP-gas container is 250 gallons or greater in water capacity, the installer shall submit construction documents for such installation.

#### **15.60.450 Use – Pyrophoric materials**

California Fire Code is hereby amended by adding Section 6405.3.4 to read:

**6405.3.4 Silane distribution systems automatic shutdown.** Silane distribution systems shall automatically shut down at the source upon activation of the gas detection system at levels above the alarm level and/or failure of the ventilation system for the silane distribution system.

#### **15.60.460 Reference standard**

California Fire Code is hereby amended by adding Section 6405.3.1 to read:

##### **NFPA**

**855 – 20:** Standard for the Installation of Stationary Energy Storage Systems

#### **15.60.470 Appendix B – Fire-flow requirements for buildings**

California Fire Code Section B105.2 is hereby amended to read:

**B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses.** The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(2) and B105.2.

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**Exceptions:** [SFM] Group B, S-2 and U occupancies having a floor area not exceeding 1,000 square feet, primarily constructed of noncombustible exterior walls with wood or steel roof framing, having a Class A roof assembly, with uses limited to the following or similar uses:

1. California State Parks buildings of an accessory nature (restrooms).
2. Safety roadside rest areas (SRRA), public restrooms.
3. Truck inspection facilities (TIF), CHP office space and vehicle inspection bays.
4. Sand/salt storage buildings, storage of sand and salt.

The maximum fire flow reduction for all commercial buildings greater than 30,000 square feet and residential podium buildings shall not exceed 25 percent of the fire flow specified in Table B105.1(2). The maximum fire flow reduction for all other buildings shall not exceed 50 percent of the fire flow specified in Table B105.1(2).

#### **15.60.480 Appendix C - Number of fire hydrants**

California Fire Code Section C102.1 is hereby amended to read:

**C102.1 Minimum number of fire hydrants for a building.** The number of fire hydrants available to a building shall be not less than the minimum specified in Table C102.1, utilizing the base fire flow without fire sprinkler reduction.

#### **15.60.490 Fire hydrant spacing**

California Fire Code Section C103 is hereby amended to read:

**Section C103 Fire hydrant spacing**

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**C103.1 Hydrant spacing.** Fire apparatus access roads and public streets providing required access to buildings in accordance with Section 503 of the California Fire Code shall be provided with one or more fire hydrants, as determined by Section C102.1. Where more than one fire hydrant is required, the distance between required fire hydrants shall be in accordance with Sections C103.2 and C103.3, but in no case shall the average spacing be more than 300 feet on center.

#### **15.60.500 Appendix D – Minimum specifications**

California Fire Code Section D103.2 is hereby amended to read:

**D103.2 Grade.** The maximum grade of a fire department apparatus access road shall not exceed 15-percent, unless approved by the fire code official.

California Fire Code Section D103.3 is hereby amended to read:

**D103.3 Turning radius.** The required turning radius of a fire apparatus access roads shall be a minimum of 30 inside, and a minimum of 50 outside.

California Fire Code Section D103.4 is hereby amended to read:

**D103.4 Dead ends.** Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4, as approved by the fire code official.

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California Fire Code Table D103.4 is hereby amended to read:

**TABLE D103.4  
REQUIREMENTS FOR DEAD-END  
FIRE APPARATUS ACCESS ROADS**

<b>Length (feet)</b>	<b>WIDTH (feet)</b>	<b>TURNAROUNDS REQUIRED</b>
0 – 150	26	Not required, unless determined necessary by the fire code official
151 – 500	26	120-foot Hammerhead, 60-foot “Y” or 96-foot-diameter cul-de-sac in accordance with Figure D103.1
500– 750	26	120-foot Hammerhead, 60-foot “Y” or 96-foot-diameter cul-de-sac in accordance with Figure D103.1
Over 750		Special approval required

California Fire Code Section D103.5 is hereby amended to read:

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

1. Where a single gate is provided, the gate width shall be not less than 20 feet (6096 mm). Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 20 feet (6096 mm).
2. Gates shall be of the horizontal swing, horizontal slide, vertical lift or vertical pivot type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.

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5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Methods of locking shall be submitted for approval by the fire code official.
7. Electric gate operators, where provided, shall be listed in accordance with UL 325.
8. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

**SECTION 2: Ordinances repealed.** With the exception of the provisions protected by the savings clause, all ordinances (or parts of ordinances) in conflict with or inconsistent with this ordinance are hereby repealed.

**SECTION 3: Savings clause.** The changes provided for in this ordinance shall not affect any offense or act committed or done or any penalty or forfeiture incurred or any right established or accruing before the effective date of this ordinance; nor shall it affect any prosecution, suit, or proceeding pending or any judgment rendered prior to the effective date of this ordinance. All fee schedules shall remain in force until superseded by the fee schedules adopted by the City Council.

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**SECTION 4: Effective date.** This ordinance shall take effect thirty (30) days after its final adoption; however, prior to its final adoption it shall be published in accordance with the requirements of Section 808 and 812 of "The Charter of the City of Santa Clara, California" as well as California Government Code Sections 50022.2, 50022.3, and 6066.

PASSED FOR THE PURPOSE OF PUBLICATION this 18<sup>th</sup> day of October, 2022, by the following vote:

AYES: COUNCILORS: Becker, Chahal, Hardy, Jain, Park, Watanabe and Mayor Gillmor

NOES: COUNCILORS: None

ABSENT: COUNCILORS: None

ABSTAINED: COUNCILORS: None

ATTEST:



NORA PIMENTEL, MMC  
ASSISTANT CITY CLERK  
CITY OF SANTA CLARA

**FINALLY PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA** this 1<sup>ST</sup> day of November, 2022, by the following vote:

AYES: COUNCILORS: Becker, Chahal, Hardy, Jain, Park, Watanabe and Mayor Gillmor

NOES: COUNCILORS: None

ABSENT: COUNCILORS: None

ABSTAINED: COUNCILORS: None

ATTEST:



NORA PIMENTEL, MMC  
ASSISTANT CITY CLERK  
CITY OF SANTA CLARA

Attachments incorporated by reference: None