ORDINANCE NO. _____

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 2019 CALIFORNIA FIRE CODE, AND THE FULL TEXT OF CERTAIN PORTIONS OF THE CODES OF THE STATE OF CALIFORNIA RELATED TO THE SIX CERTIFED 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 2018 International Fire Code to establish the 2019 California Fire Code;

WHEREAS, the 2019 California Fire Code will automatically go into effect on January 1, 2020;

WHEREAS, the 2019 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,

WHEREAS, the City of Santa Clara ("City") finds it necessary to amend the 2019 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and Environmental Code" of Title 15 "Building and Construction" of "The Code of the City of Santa Clara" ("SCCC") is repealed in its entirety and replaced with the following: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:

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."

15.60.020 Adoption by reference

The "2019 California Fire Code" is adopted in its entirety, including Appendices B, C, D, E, F, G, K, L, and M, 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 2019 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.

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.”

15.60.040 Enforcement.

California Fire Code is hereby amended by adding Section 103.5 to read:

103.5 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.

103.5.1 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.

103.5.2 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.

103.5.3 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.

103.5.4 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.

15.60.050 General authority and responsibility.

California Fire Code is hereby amended by adding 104.11.4 to read:

104.11.4 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.

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 105.6 to read:

105.6 Required Operational Permits. The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.6.1 through 105.6.56. 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.

California Fire Code Section 105.6.16 is hereby amended to read:

105.6.16 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.

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

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

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

10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.

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

California Fire Code Section 105.6.36 is hereby amended as follows:

105.6.36 Outdoor assembly event. An operational permit is required to conduct an outdoor assembly event where planned and/or actual attendance exceeds 300 people.

California Fire Code is hereby amended by adding Section 105.6.52 as follows:

105.5.52 Additive Manufacturing. An operational permit is required to conduct additive manufacturing operations.

California Fire Code is hereby amended by adding Section 105.6.53 as follows:

105.6.53 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 105.6.54 to read:

105.6.54 Lithium batteries. An operational permit is required to collect or store more than 1,000 pounds (454 kg) of lithium batteries.

California Fire Code is hereby amended by adding Section 105.6.55 to read:

105.6.55 Smoke control systems. An operational permit is required for smoke control systems.

California Fire Code is hereby amended by adding Section 105.6.56 to read:

105.6.56 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 106.1 is hereby amended to read:

106.1 Fees. A permit shall not be issued until the fees have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid. Fees will be collected as specified in the Santa Clara Municipal Fee Schedule. 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 of one hundred percent (100%) shall be added to said fee.

106.1.1 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 107.5 to read:

107.5 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 107.6 to read:

107.6 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.

California Fire Code is hereby amended by adding Section 107.7 to read:

107.7 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 Appeals process

California Fire Code Section 109 is hereby amended to read:

Section 109 Appeals Process

109.1 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.

15.60.100 Violations

California Fire Code Section 110.2 is hereby amended to read:

110.2 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 person fails to comply with orders of the fire code official or his/her designated representatives, or if the owner/tenant is unable to be located within a reasonable time, the fire code official or his/her designated representative 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.

California Fire Code Section 110.4 is hereby amended to read:

110.4 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 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 110.4.1 to read:

110.4.1 Penalty Schedule

110.4.1.1 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).

110.4.1.2 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).

110.4.1.3 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.

California Fire Code is hereby amended by adding Section 110.4.3 to read:

110.4.3 Civil Penalties. Any person who intentionally, accidentally or negligently violates any provision of this code, any written authority of the City Manager or his or her duly authorized agents and representatives, or any provision of any permit issued pursuant to this code may be civilly liable to the City in the sum not to exceed one thousand dollars ($1,000.00) per day for each day in which such violation occurs or continues. The City may petition the municipal or superior court to impose, assess, and recover such sums. The civil penalty provided in this Section excludes inspection costs and abatement costs, is cumulative and not exclusive, and shall be in addition to all other remedies available to the City under state and federal law and local ordinances. Funds collected pursuant to

this Section shall be paid to the Fire Prevention and Hazardous Materials Enforcement Fund.

15.60.110 Abatement

California Fire Code Section 111.4 is hereby amended to read:

111.4 Abatement. The owner, the owner's authorized agent, operator or occupant of a building or premises deemed unsafe by the fire code official shall abate or cause to be abated or corrected such unsafe conditions either by repair, rehabilitation, demolition or other approved corrective action. If any person fails to comply or is unable to located within a reasonable time, the fire code official or any authorized representative may take such steps as are necessary to abate the hazard for the protection of the public health, safety or the environment. Abatement may include the closure of a facility or a part of a facility. In no event is notice necessary before abatement when the hazard is a clear and present danger to the public welfare, constitutes a fire and life safety hazard, a threat to emergency responders or a threat to the environment. All costs related to such abatement shall become a lien on the subject property. All costs related to such abatement may also be collected from the party responsible for the hazard, whether an owner, occupant, manager or officer of an entity which is an owner, occupant or manager.

15.60.120 Stop work order

California Fire Code Section 111.4 is hereby amended to read:

112.4 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 punishable by a fine not to exceed one thousand dollars ($1,000.00).

15.60.130 Building division plan submittals

California Fire Code Section 114 is hereby added to read:

SECTION 114 Building Division Plan Submittals

114.1 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, H, I, L R-1, R-2, R-2.1, R-3.1, R-4 and 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.

15.60.140 General definitions

California Fire Code Section 202 is hereby amended by adding the following definitions to read:

“3D printer” shall mean a machine used in the additive manufacturing process for fabricating objects through the deposition of a material using a print head, nozzle, or another printer technology.

“Additive manufacturing” shall mean a process of joining materials to make objects from 3D model data, usually layer upon layer, sometimes referred to as 3D printing. The Code recognizes two types of additive manufacturing:

1. Industrial additive manufacturing. 3D printing operations that typically utilize combustible powders or metals, an inert gas supply, a combustible

dust collection system. or that create a hazardous (classified) location area or zone outside of the equipment.

2. Non-industrial additive manufacturing. 3D printing operations that do create a hazardous (classified) location area outside of the equipment, and do not utilize an inert gas supply or a combustible dust collection system.

“Corrosive liquid” shall mean any of the following:

1. any liquid which, when in contact with living tissue, will cause destruction irreversible alteration of such tissue by chemical action; or
2. any material exhibiting the characteristics of corrosivity in accordance with Title 22, California Code of Regulations §66261.22.

“Fire code official” shall mean the Fire Marshal is the designated authority charged with the administration and enforcement of this code.

“Secondary containment” shall mean that 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.

“Spill control” shall mean 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.

“Work Station” shall mean any space or an independent principal piece of equipment using “hazardous materials with a hazard rating of 3 or 4 in accordance with NFPA 704

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 work station are included as part of the work station. A work station is allowed to contain ventilation equipment, fire protection devices, detection devices, electrical devices and other processing and scientific equipment.

"Unified Program Agency" means the City of Santa Clara Fire Department which 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.

15.60.150 General storage

California Fire Code is hereby amended by adding Section 315.8 to read:

315.8 Lithium Battery Storage and Handling. The storage and handling of lithium ion and lithium metal batteries or cells in quantities exceeding 1,000 pounds (4086 kg) shall comply with Section 315.8.1 through 315.8.10, and Chapter 32 where applicable.

315.8.1 Permits. Permits shall be required as set forth in Section 105.6.27.

315.8.2 Maximum quantity in a fire area. The aggregate amount of lithium batteries stored and handled in a single fire area shall not exceed 9,000 pounds (4086 kg).

315.8.3 Construction requirements. Fire areas shall be separated from each other by fire barriers having not less than 2-hour fire resistance rating constructed in

accordance with Section 707 of the Building Code and horizontal assemblies constructed in accordance with Section 711 of the Building Code.

315.8.4 Number of fire areas. The maximum number of fire areas within a building shall be four.

315.8.5 Group H, Division 2 occupancy. Storage and handling of more than 9,000 pounds of lithium batteries per fire area shall be in an approved Group H, Division 2 occupancy constructed in accordance with the Building Code and provided throughout with approved automatic smoke detection and radiant-energy detection systems.

315.8.6 Automatic sprinkler system. Buildings containing fire areas used for lithium battery storage or handling shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. The design of the sprinkler system within each fire area shall not be less than that required for Extra Hazard Group 2 with a minimum design area of 3,000 square feet. Where the storage arrangement is required by other provisions of this code to be provided with a higher level of sprinkler system protection, the higher level of sprinkler system protection shall be provided.

315.8.7 Automatic smoke detection system. An approved automatic smoke detection system that activates an approved occupant notification system shall be provided throughout each fire area in accordance with Section 907.

315.8.8 Radiant energy detection. An approved radiant-energy detection system that activates an approved occupant notification system shall be installed throughout each fire area in accordance with Section 907.

315.8.9 Collection containers. Containers used to collect or store lithium batteries shall be noncombustible and shall not have an individual capacity exceeding 30 gallons (113.6 L), or be approved for transportation in accordance with the Department of Transportation (DOT).

315.8.10 Storage configuration. Lithium batteries shall be considered a high-hazard commodity in accordance with Chapter 32 and where applicable, lithium battery storage shall comply with Chapter 32 in addition to Section 315.8.

15.60.160 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.

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.

15.60.170 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 503.2.8 and 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 a “minimum” unobstructed width of not less than 20 feet exclusive of shoulders for fire engines, or a minimum unobstructed width of 26 feet when required by Appendix D, and a minimum unobstructed vertical clearance of 13 feet 6 inches.

California Fire Code Section 503.2.2 is hereby amended to read:

503.2.2 Authority. The fire code official shall have the authority to require or permit modifications to the required access widths and/or vertical clearance where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives.

15.60.180 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 or his/her designee. Access control devices shall also comply with Chapter 10 Egress.

15.60.190 Premises identification

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.

15.60.200 Fire command center

California Fire Code Section 508.1.2 is hereby added to read:

508.1.2 Separation. The fire command center shall be separated from the remainder of the building by not less than a 2-hour fire barrier constructed in accordance with Section 707 of the California Building Code or horizontal assembly constructed in accordance with Section 711 of the California Building Code, or both.

15.60.210 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.

California Fire Code Section 510.4.2.5 is hereby added to read:

510.4.2.5 System monitoring. The emergency responder radio enhancement system shall be monitored as required below:

1. By a listed fire alarm control unit installed with the protected building. Automatic supervisory signals to the fire alarm shall include all of the following:
    1.1. Loss of normal AC power supply.
    1.2. System battery charger(s) failure.
    1.3. Malfunction of the donor antenna(s).
    1.4. Malfunction of area antenna(s).
    1.5. Failure of active RF-emitting device(s).
    1.6. Low-battery capacity at 70-percent reduction of operating capacity.
    1.7. Failure of critical system components.
    1.8. The communications link between the fire alarm system and the emergency responder radio enhancement system.
2. System performance shall be continuously monitored by an approved third-party monitoring company capable of monitoring the performance of the ERRC system and initiating an appropriate response if the system begins to operate outside of the established system parameters.

510.4.2.5.1 Remote Off-Switch. The emergency responder radio coverage system shall be equipped with a remote off-switch that can be initiated by the third-party monitoring company with approval of the fire department if the system begins to operate outside of established system parameters, or at the direction of the fire code official.

15.60.220 Fuel-fired appliances

California Fire Code Section 603.4 is hereby amended to read:

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

California Fire Code Section 603.4.2.1.1 is hereby amended to read:

603.4.2.1.1 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.

15.60.230 Electrical equipment, wiring, and hazards

California Fire Code is hereby amended by adding Section 604.12 to read:

604.12 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.

15.60.240 Commercial kitchen cooking oil storage

California Fire Code is hereby amended by adding Section 608.1 to read:

608.1 General. The storage of cooking oil (grease) in new and existing commercial cooking operations with a capacity greater than 60 gal (227 L) within a building shall comply with Sections 610.2 through 610.7 and NFPA 30. For purposes of this section, cooking oil shall be classified as a Class III-B liquid unless otherwise determined by testing.

15.60.250 Penetrations

California Fire Code Section 703.2 is hereby added to read:

703.2 New Installations. In new R-1 and R-2 occupancies, special inspections for through-penetrations and membrane penetrations firestop systems shall be required in accordance with Section 703.2.1.

703.2.1 Penetration firestops. Inspections of penetration firestop systems that are tested and listed in accordance with California Building Code Sections 714.4.1.2 and 714.5.1.2 shall be conducted by an approved third-party agency in accordance with ASTM E2174.

15.60.260 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.

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.

15.60.270 General

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. Inspections and tests performed on fire and life safety systems shall be documented on NFPA forms. When required, records shall be uploaded to an electronical inspection database of the fire departments choosing at no cost to the jurisdiction.

15.60.280 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. 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 solar arrays that do not exceed 5000 square feet.

2. 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.

3. 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.

15.60.290 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 both shall occur at least annually. The requirement for testing to occur at least annually applies to new and existing systems.

15.60.300 Fire safety during construction and demolition

California Fire Code is hereby amended by adding Section 3304.9 to read:

3304.9 Fire Walls. When firewalls 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).

15.60.310 Owner's responsibility for fire protection and site security

California Fire Code is hereby amended by adding Section 3308.3 to read:

3308.3 Pre-fire plans. The fire prevention program superintendent shall develop and maintain an approved pre-fire plan in cooperation with the fire code official. The fire code official shall be notified of changes affecting the utilization of information contained in such pre-fire plans.

California Fire Code 3308.5 is hereby amended to read:

3308.5 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 provided with linear heat detection during construction. The fire alarm system is required to 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 fire alarm for construction sites standard.

3308.5.1 Fire Protection Devices. The fire prevention program superintendent shall determine that all fire protection equipment is maintained and serviced in accordance with this code. The quantity and type of fire protection equipment shall be approved. Fire protection equipment shall be inspected in accordance with the construction safety plan.

California Fire Code is hereby amended by adding Section 3308.9 to read:

3308.9. 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 maintain for minimum of 30-days off-site and made available to the fire department upon request. The electronic security camera layout plan shall be incorporated in the construction safety plan and is required to be approved prior to the start of construction.

California Fire Code is hereby amended by adding Section 3308.10. to read:

3308.10. 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 one a week.

15.60.320 Means of egress

California Fire Code Section 3311.1 is hereby amended to read:

3311.1 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.).

15.60.330 General – hazardous materials

California Fire Code is hereby amended by adding Section 5001.2.2.2 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.

California Fire Code is hereby amended by adding Section 5001.5.3 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.

California Fire Code Section 5001.5.3 is hereby amended to read:

5001.6.3 Facility closure plan. Where a facility closure plan is required in accordance with Section 5001.5 to terminate storage, dispensing, handling or use of hazardous materials, it shall be submitted to the fire code official not less than 30 days prior to facility closure. The plan shall demonstrate that hazardous materials that are stored, dispensed, handled or used in the facility will be transported, disposed of or reused in a manner that eliminates the need for further maintenance and any threat to public health and safety. Facilities that are or have been subject to reporting requirements of 5001.5.1, 5001.5.2, or 5001.5.3 are required to submit a facility closure plan in accordance with this section.

15.60.340 General requirements – hazardous materials

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

5003.1.5 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.
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.

    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.

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.

   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 415.8.6.3 of the California Building Code as required for Group H, Division 5 Occupancies.

3. All primary piping for toxic, highly toxic and moderately toxic gases shall pass a helium leak test of 1x10-9 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.

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 is hereby amended by adding Section 5003.9.11 to read:

5003.9.11 Fire Extinguishing Systems for Workstations Dispensing, Handling or Using Hazardous Materials. Combustible and non-combustible workstations, which dispense,

handle or use hazardous materials, shall be protected by an approved automatic fire extinguishing system in accordance with Section 2703.10, unless otherwise approved.

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.

5003.10.4.2 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 Means shall be provided to prevent the elevator from being summoned to other floors.

15.60.350 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.

15.60.360 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.

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.

15.60.370 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. An approved means or method in accordance with Section 5704.2.9.7.6 shall be provided to prevent the overfilling of Class IIIB liquid storage tanks connected to fuel-burning equipment inside buildings.

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.

15.60.380 Special operations

California Fire Code is hereby amended by adding Section 5706.6.2.1 to read:

5706.6.2.1 Parking near residential, educational and institutional occupancies and other high-risk areas. Tank vehicles shall not be left unattended at any time on residential streets, or within 500 feet (152 m) of a residential area, apartment or hotel complex, educational facility, hospital or care facility. Tank vehicles shall not be left unattended at any other place that would, in the opinion of the fire code official, pose an extreme life hazard.

15.60.390 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.

15.60.400 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. 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.

15.60.410 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 m3) 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 m3) at NTP are allowed in gas cabinets or fume hoods.

California Fire Code is hereby amended by adding Section 6004.1.5 to read:

6004.1.5 Emergency Control Station. Signals from emergency equipment used for highly toxic and toxic compressed gases shall be transmitted to a control stations, which are continually staffed by trained personnel. The signals to the emergency control station shall also be monitored by an approved third-party monitoring company that contact 911 in the event of an alarm.

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

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 6004.3.5.1 through 6004.3.10.

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:

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:
    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) (m3/s) of gas at normal temperature and pressure (NTP).

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.

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.

15.60.420 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.

15.60.430 Use – pyrophoric materials

California Fire Code is hereby amended by adding Section 6405.3.1 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."

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.

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 XX day of XXXXXX, 2019, by the following vote:

AYES: COUNCILORS:

NOES: COUNCILORS:

ABSENT: COUNCILORS:

ABSTAINED: COUNCILORS:

ATTEST: _____
NORA PIMENTEL, MMC
ASSISTANT CITY CLERK
CITY OF SANTA CLARA