# INITIAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS

#### ROPOSED BUILDING STANDARDS OF THE

#### DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT REGARDING THE ADOPTION OF THE 2019 CALIFORNIA MECHANICAL CODE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4

(HCD XXX)

The Department of Housing and Community Development (HCD) proposes to adopt the 2018 edition of the Uniform Mechanical Code (UMC) for codification and effectiveness into the 2019 edition of the California Mechanical Code (CMC) as presented on the following pages, including any necessary amendments. HCD further proposes to:

#### LEGEND FOR EXPRESS TERMS:

- 1. UMC language with new California amendments: UMC language shown in normal Arial 9-point; California amendments to UMC text shown <u>underlined and in italics</u> with vertical bar in left margin.
- 2. Existing California amendments being modified: All such existing language shown in *italics*, modified language is <u>underlined</u> or shown in <u>strikeout</u> with vertical bar in left margin.
- 3. Existing California amendments with no modification: All such existing language shown in *italics*, modified model code language is shown in strikeout.
- 4. Text not being modified: All language not displayed in full is shown as "..." (i.e., ellipsis).
- **5.** Repealed text: All language shown in strikeout, with vertical bar in left margin.
  - 6. Notation: Authority and Reference citations are provided at the end of each action.

#### **SUMMARY OF REGULATORY ACTION**

#### **HCD PROPOSES TO:**

- Repeal the 2015 edition of the Uniform Mechanical Code (UMC)
- Repeal the 2016 edition of the California Mechanical Code (CMC), including existing California amendments to the model code that are no longer necessary
- Adopt sections from the 2018 UMC into the 2019 CMC without amendments
- Adopt sections from the 2018 UMC into the 2019 CMC with existing amendments
- Bring forward existing California amendments from the 2016 CMC for adoption into the 2019 CMC without modifications
- > Bring forward existing California amendments from the 2016 CMC for adoption into the 2019 CMC with nonsubstantive editorial modifications
- > Adopt sections from the 2018 UMC into the 2019 CMC with new amendments that do not change the regulatory effect

Item	Section Number	Title	Page Number
4	303.13 Exception	Pit Location	18
4	316.2	Installation	18
4	316.5	Fire-Resistant Construction	18
4	316.9	Structural Members	18
5	402.3	Mechanical Ventilation	19
7	602.2.1	Electrical	21
7	603.3.3	Earthquake Loads.	21
7	605.1	Smoke Dampers	21
7	606.1	General	21
11	1001.2	Boiler Rooms and Enclosures	24
13	1205.2 Note	Pressure Testing	25
13	1211.6 Note	Cross-Linked Polyethylene/Aluminum/Cross-Linked Polyethylene (PEX-AL-PEX) Pipe	25

Bring forward existing California amendments from the 2016 CMC for adoption into the 2019 CMC with new modifications that do not change the regulatory effect

Item	Section Number	Title	Page Number
1	1.1.3.2 Item 10	State-Regulated Buildings, Structures, and Applications	4
1	1.1.7.3.1	Detached one- and two-family dwellings	6
1	1.8.2.1.2	Housing Accessibility	8
1	1.8.2.1.3	Permanent Buildings in Mobilehome Parks and Special Occupancy Parks	9
1	1.8.7.3	Department of Housing and Community Development	12
3	216.0 -N-	Nuisance. (HCD 1 & HCD 2)	17
4	303.7.1	Liquefied Petroleum Gas	18
5	403.7.2.4	Exhaust System Operation. (HCD 1 & HCD 2)	19
5	Table 403.7	Minimum Exhaust Rates	20

#### > Adopt sections from the 2018 UMC into the 2019 CMC with new amendments

Item	Section Number	Title	Page Number
13	1217.5.2	Insulation	25
13	1217.5.4	Wall and Ceiling Panels	25
13	1220.2.5	Insulation	25

### > Bring forward existing California amendments from the 2016 CMC for adoption into the 2019 CMC with modifications

Item	Section Number	Title	Page Number
1	1.1.1	Title	4
1	1.1.9 Exception	Effective Date of this Code	7

#### > Adopt new amendments into the 2019 CMC

Item	Section Number	Title	Page Number
7	603.10.1.1	Duct Leakage Tests for Residential Buildings	21

#### Not adopt specified sections of the 2018 UMC

Item	Section Number	Title	Page Number
7	603.10.1	Duct Leakage Tests	21
10	911.2.2	In Manufactured Homes	22
10	930.0	Appliances for Installation in Manufactured Housing	23
10	930.1	General	23
15	•	Chapter 14—Process Piping	26
19-	-	Appendices A—G	28-30
25			

1. HCD proposes to bring forward Chapter 1, Division 1, Sections 1.1 and 1.8, from the 2016 California Mechanical Code for adoption into the 2019 California Mechanical Code with modifications as follows:

# CHAPTER 1 ADMINISTRATION DIVISION I CALIFORNIA ADMINISTRATION

#### 1.1.0 General

- 1.1.1 Title. These regulations shall be known as the California Mechanical Code, may be cited as such and will be referred to herein as "this code." The California Mechanical Code is Part 4 of thirteen parts of the official compilation and publication of the adoption, amendment, and repeal of mechanical regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 2015 2018 Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials with necessary California amendments.
- **1.1.2 Purpose.** The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation, and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.
- **1.1.3 Scope.** The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout the State of California.
  - **1.1.3.1 Nonstate-Regulated Buildings, Structures, and Applications.** Except as modified by local ordinance pursuant to Section 1.1.8, the following standards in the California Code of Regulations, Title 24, Parts 2, 2.5, 3, 4, 5, 6, 9, 10 and 11 shall apply to all occupancies and applications not regulated by a state agency.
  - **1.1.3.2 State-Regulated Buildings, Structures, and Applications.** The model code, state amendments to the model code, and/or state amendments where there are no relevant model code provisions shall apply to the following buildings, structures, and applications regulated by state agencies as specified in Sections 1.2.0 through 1.14.0, except where modified by local ordinance pursuant to Section 1.1.8. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the state legislature.

Note: See Preface to distinguish the model code provisions from the California provisions.

- (1) State-owned buildings, including buildings constructed by the Trustees of the California State University, and to the extent permitted by California laws, buildings designed and constructed by the Regents of the University of California, and regulated by the Building Standards Commission. See Section 1.2.0 for additional scope provisions.
- (2) Section 1.3.0 is reserved for Board of State and Community Corrections.
- (3) Section 1.4.0 is reserved for the Department of Consumer Affairs.
- (4) Section 1.5.0 is reserved for the California Energy Commission.
- (5) Section 1.6.0 is reserved for the Department of Food and Agriculture.
- (6) Organized camps, laboratory animal quarters, public swimming pools, radiation protection, commissaries serving mobile food preparation vehicles, and wild animal quarantine facilities regulated by the Department of Public Health. See Section 1.7.0 for additional scope provisions.

- (7) Hotels, motels, lodging houses, apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing, and other types of dwellings containing sleeping accommodations with or without common toilets or cooking facilities. See Section 1.8.2.1.1 for additional scope provisions.
- (8) Accommodations for persons with disabilities in buildings containing newly constructed covered multifamily dwellings, new common use areas serving existing covered multifamily dwellings, additions to existing buildings where the addition alone meets the definition of covered multifamily dwellings and new commonuse areas serving new covered multifamily dwellings, which are regulated by the Department of Housing and Community Development. See Section 1.8.2.1.2 for additional scope provisions.
- (9) Permanent buildings and permanent accessory buildings or structures constructed within mobilehome parks and special occupancy parks regulated by the Department of Housing and Community Development. See Section 1.8.2.1.3 for additional scope provisions.
- (10) Reserved for the Division of the State Architect Access Compliance.
  - <u>Accommodations for persons with disabilities regulated by the Division of the State Architect. See Section</u> 1.9.1 for additional scope provisions.
- (11) Public elementary and secondary schools, community college buildings and state-owned or state-leased essential service buildings regulated by the Division of the State Architect. See Section 1.9.2 for additional scope provisions.
- (12) Reserved for the State Historical Building Safety Board with the Division of the State Architect.
- (13) General acute care hospitals, acute psychiatric hospitals, skilled nursing and/or intermediate care facilities, clinics licensed by the Department of Public Health and correctional treatment centers regulated by the Office of Statewide Health Planning and Development. See Section 1.10.0 for additional scope provisions.
- (14) Applications regulated by the Office of State Fire Marshal include but are not limited to the following in accordance with Section 1.11.0:
  - (1) Buildings or structures used or intended for use as an:
    - 1.1. Asylum, jail, prison.
    - 1.2. Mental hospital, home for the elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity.
    - 1.3. Theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building, or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.
    - 1.4. Small family day care homes, large family day-care homes, residential facilities and residential facilities for the elderly, residential care facilities.
    - 1.5. State institutions or other state-owned or state-occupied buildings.
    - 1.6. High rise structures.
    - 1.7. Motion picture production studios.
    - 1.8. Organized camps.
    - 1.9. Residential structures.
  - (2) Tents, awnings, or other fabric enclosures used in connection with any occupancy.
  - (3) Fire alarm devices, equipment, and systems in connection with any occupancy.
  - (4) Hazardous materials, flammable, and combustible liquids.
  - (5) Public school automatic fire detection, alarm, and sprinkler systems.
  - (6) Wildland-urban interface fire areas.
- (15) Section 1.12.0 is reserved for public libraries constructed and renovated using funds from the California

Library Construction and Renovation Bond Act of 1988 and regulated by the State Librarian.

- (16) Section 1.13.0 is reserved for the Department of Water Resources.
- (17) For applications listed in Section 1.9.1 regulated by the Division of the State Architect Access Compliance, outdoor environments and uses shall be classified according to accessibility uses described in Chapters 11A and 11B.
- (18) Section 1.14.0 is reserved for Marine Oil Terminals regulated by the California State Lands Commission.
- **1.1.4 Appendices.** Provisions contained in the appendices of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code Section 18901 et. seq. for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law and Health and Safety Code Section 13869.7 for Fire Protection Districts. See Section 1.1.8 of this code.
- 1.1.5 Referenced Codes. The codes, standards and publications adopted and set forth in this code, including other codes, standards, and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code. When this code does not specifically cover any subject related to building design and construction, recognized architectural, or engineering practices shall be employed. The National Fire Codes, standards, and the Fire Protection Handbook of the National Fire Protection Association are permitted to be used as authoritative guides in determining recognized fire prevention engineering practices.
- **1.1.6 Non-Building Standards, Orders and Regulations.** Requirements contained in the Uniform Mechanical Code, or in any other referenced standard, code or document, which are not building standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code. For nonbuilding standards, orders, and regulations, see other titles of the California Code of Regulations.

#### 1.1.7 Order of Precedence and Use.

- **1.1.7.1 Differences.** In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern.
- **1.1.7.2 Specific Provisions.** Where a specific provision varies from a general provision, the specific provision shall apply.
- **1.1.7.3 Conflicts.** When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, the most restrictive requirements shall prevail.
- Exception: 1.1.7.3.1 Detached one- and two-family dwellings. Detached one- and two-family dwellings, efficiency dwelling units, lodging houses, live/work units, townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures, shall not be required to comply with the California Residential Code if constructed in accordance with the California Building Code.
- 1.1.8 City, County, or City and County Amendments, Additions or Deletions. The provisions of this code do not limit the authority of city, county, or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section 1.1.8.1. The effective date of amendments, additions, or deletions to this code by city, county, or city and county filed pursuant to Section 1.1.8.1 shall be the date filed. However, in no case shall the amendments, additions, or deletions to this code be effective any sooner than the effective date of this code.

Local modifications shall comply with Health and Safety Code Section 18941.5 for Building Standards Law, Health and Safety Code Section 17958 for State Housing Law or Health and Safety Code Section 13869.7 for Fire Protection Districts.

#### 1.1.8.1 Findings and Filings:

(1) The city, county, or city and county shall make express findings for each amendment, addition, or deletion based upon climatic, topographical, or geological conditions.

Exception: Hazardous building ordinances and programs mitigating unreinforced masonry buildings.

- (2) The city, county, or city and county shall file the amendments, additions, or deletions expressly marked and identified as to the applicable findings. Cities, counties, cities and counties, and fire departments shall file the amendments, additions, or deletions, and the findings with the California Building Standards Commission at 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833.
- (3) Findings prepared by fire protection districts shall be ratified by the local city, county, or city and county and filed with the California Department of Housing and Community Development, Division of Codes and Standards, P.O. Box 1407, Sacramento, CA 95812-1407 or 2020 W. El Camino Avenue, Suite 259 200, Sacramento, CA 95833-1829.
- **1.1.8.2** Locally Adopted Energy Standards California Energy Code, Part 6. In addition to the provisions of Section 89.101.8.1 1.1.8.1 of this ₽part, the provisions of this section applies to cities, counties, and city and county amending adopted energy standards affecting buildings and structures subject to the California Energy Code, Part 6.

Applicable provisions of Public Resources Code Section 25402.1 and applicable provisions of Chapter 10 of the California Administrative Code, Part 1 apply to local amendment of energy standards adopted by the California Energy Commission.

**1.1.9 Effective Date of this Code.** Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code.

Exception: Plans approved by the Department of Housing and Community Development or a Department-approved design approval agency for factory built housing as defined by Health and Safety Code Section 19971. Approved plans, pursuant to the California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, Article 3, Section 3048 remain valid for a period of 36 months from the date of plan approval.

- **1.1.10 Availability of Codes.** At least one complete copy each of Titles 8, 19, 20, 24, and 25 with all revisions shall be maintained in the office of the building official responsible for the administration and enforcement of this code. Each state department concerned and each city, county, or city and county shall have an up-to-date copy of the code available for public inspection, See Health and Safety Code Section 18942 (e) (1) and (2).
- **1.1.11 Format.** This part fundamentally adopts the Uniform Mechanical Code by reference on a chapter-by-chapter basis. When a specific chapter of the Uniform Mechanical Code is not printed in the code and is marked "Reserved", such chapter of the Uniform Mechanical Code is not adopted as a portion of this code. When a specific chapter of the Uniform Mechanical Code is marked "Not Adopted by the State of California" but appears in the code, it may be available for adoption by local ordinance.

**Note:** Matrix Adoption Tables at the front of each chapter may aid the code user in determining which chapter or sections within a chapter are applicable to buildings under the authority of a specific state agency, but they are not to be considered regulatory.

- **1.1.12 Validity.** If any chapter, section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes, or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code
- 1.8.0 Department of Housing and Community Development (HCD).
- **1.8.1 Purpose.** The purpose of this code is to establish the minimum requirements necessary to protect the health, safety, and general welfare of the occupants and the public by governing the erection, construction, reconstruction, enlargement, conversion, alteration, repair, moving, removal, demolition, ventilation and maintenance or use of heating, ventilating, cooling, refrigeration systems, incinerators, and other miscellaneous heat-producing appliances.
- 1.8.2 Authority and Abbreviations.

**1.8.2.1 General.** The Department of Housing and Community Development is authorized by law to promulgate and adopt building standards and regulations for several types of building applications. The applications under the authority of the Department of Housing and Community Development are listed in Sections 1.8.2.1.1 through 1.8.2.1.3.

#### 1.8.2.1.1 Housing Construction.

**Application** - Hotels, motels, lodging houses, apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing, and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities including accessory buildings, facilities, and uses thereto. Sections of this code which pertain to applications listed in this section are identified using the abbreviation "HCD 1".

**Enforcing Agency** - Local building department or the Department of Housing and Community Development.

**Authority Cited**: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

**References**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

#### 1.8.2.1.2 Housing Accessibility.

**Application** - Covered multifamily dwellings as defined in Chapter 2 of the California Code of Regulations, Title 24, Part 2, also known as the California Building Code including, but not limited to, lodging houses, dormitories, timeshares, condominiums, shelters for homeless persons, congregate residences, apartments, dwellings, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities.

Sections of this code identified by the abbreviation "HCD 1-AC" require specific accommodations for persons with disabilities as defined in Chapter 2 of the California Building Code. The application of such provisions shall be in conjunction with other requirements of this code and apply only to newly-constructed covered multifamily dwellings as defined in Chapter 2 of the California Building Code. "HCD 1-AC" applications include, but are not limited to, the following:

- (1) All newly-constructed covered multifamily dwellings as defined in Chapter 2 of the California Building Code.
- (2) New common use areas as defined in Chapter 2 of the California Building Code serving existing covered multifamily dwellings.
- (3) Additions to existing buildings, where the addition alone meets the definition of covered multifamily dwellings as defined in Chapter 2 of the California Building Code.
- (4) New Common use areas serving new covered multifamily dwellings.
  - (5) Where any portion of a building's exterior is preserved, but the interior of the building is removed, including all structural portions of floors and ceilings, the building is considered a new building for determining the application of California Building Code, Chapter 11A.

"HCD 1-AC" building standards generally do not apply to public use areas or public accommodations such as hotels, and motels, and public housing. Public use areas, public accommodations, and public housing, as defined in Chapter 2 of the California Building Code, are subject to the Division of the State Architect (DSA-AC) in Chapter 11B, and are referenced in Section 1.9.1.

Newly constructed covered multifamily dwellings, which can also be defined as public housing, shall be subject to the requirements of Chapter 11A and Chapter 11B.

Enforcing Agency - Local building department or the Department of Housing and Community Development.

**Authority Cited**: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

**References**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

#### 1.8.2.1.3 Permanent Buildings in Mobilehome Parks and Special Occupancy Parks.

**Application** - Permanent buildings, and permanent accessory buildings or structures, constructed within mobilehome parks and special occupancy parks that are under the control and ownership of the park operator. Sections of this code which pertain to applications listed in this section are identified using the abbreviation "HCD 2".

Enforcing Agency: Local building department or other local agency responsible for the enforcement of Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 for mobilehome parks and Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860, for special occupancy parks; or the Department of Housing and Community Development.

Enforcing Agency – The Department of Housing and Community Development, local building department or other local agency that has assumed responsibility for the enforcement of Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 for mobilehome parks and Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 for special occupancy parks.

**Authority Cited**: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

**References**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

#### 1.8.3 Local Enforcing Agency.

**1.8.3.1 Duties and Powers.** The building department of every city, county, or city and county shall enforce all the provisions of law, this code, and the other rules and regulations promulgated by the Department of Housing and Community Development pertaining to the installation, erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition, or arrangement of apartments, condominiums, hotels, motels, lodging houses, and dwellings, including accessory buildings, facilities, and uses thereto.

The provisions regulating the erection and construction of dwellings and appurtenant structures shall not apply to existing structures as to which construction is commenced or approved prior to the effective date of these regulations. Requirements relating to use, maintenance, and occupancy shall apply to all dwellings and appurtenant structures approved for construction or constructed before or after the effective date of this code.

For additional information regarding the use and occupancy of existing buildings and appurtenant structures, see California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.

**1.8.3.2 Laws, Rules, and Regulations.** Other than the building standards contained in this code, and notwithstanding other provisions of law, the statutory authority and location of the laws, rules, and regulations to be enforced by local enforcing agencies are listed by statute in Sections 1.8.3.2.1 through 1.8.3.2.5 below:

- **1.8.3.2.1 State Housing Law.** Refer to the State Housing Law, California Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910, and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1, for the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition, or arrangement of apartments, condominiums, hotels, motels, lodging houses, and dwellings, including accessory buildings, facilities, and uses thereto.
- **1.8.3.2.2 Mobilehome Parks Act.** Refer to the Mobilehome Parks Act, California Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000 for mobilehome park administrative and enforcement authority, permits, plans, fees, violations, inspections and penalties both within and outside mobilehome parks.

**Exception:** Mobilehome parks where the Department of Housing and Community Development is the enforcing agency.

**1.8.3.2.3 Special Occupancy Parks Act.** Refer to the Special Occupancy Parks Act, California Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000 for special occupancy park administrative and enforcement authority, permits, fees, violations, inspections, and penalties both within and outside of special occupancy parks.

**Exception:** Special occupancy parks where the Department of Housing and Community Development is the enforcing agency.

- **1.8.3.2.4 Employee Housing Act.** Refer to the Employee Housing Act, California Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600 for employee housing administrative and enforcement authority, permits, fees, violations, inspections and penalties.
- **1.8.3.2.5 Factory-Built Housing Law.** Refer to the Factory-Built Housing Law, California Health and Safety Code, Division 13, Part 6, commencing with Section 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000 for factory-built housing administrative and enforcement authority, permits, fees, violations, inspections, and penalties.
- 1.8.4 Permits, Fees, Applications, and Inspections.
  - **1.8.4.1 Permits.** A written construction permit shall be obtained from the enforcing agency prior to the erection, construction, reconstruction, installation, relocation, or alteration of any mechanical system.

#### Exceptions:

- (1) Work exempt from permits as specified in Chapter 1, Administration, Division II, Section 104.2 Items (1) through (5) of this code.
- (2) Changes, alterations, or repairs of a minor nature not affecting structural features, egress, sanitation, safety, or accessibility as determined by the enforcing agency.

Exemptions from permit requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of other provisions of law or this code.

- **1.8.4.2 Fees.** Subject to other provisions of law, the governing body of any city, county, or city and county may prescribe fees to defray the cost of enforcement of rules and regulations promulgated by the Department of Housing and Community Development. The amount of the fees shall not exceed the amount reasonably necessary to administer or process permits, certificates, forms, or other documents, or to defray the costs of enforcement. For additional information, see State Housing Law, Health and Safety Code, Division 13, Part 1.5, Section 17951 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, Article 3, commencing with Section 6.
- **1.8.4.3 Plan Review and Time Limitations.** Subject to other provisions of law, provisions related to plan checking, prohibition of excessive delays, and contracting with or employment of private parties to perform plan checking are set forth in the State Housing Law, Health and Safety Code Section 17960.1, and for employee housing, in Health and Safety Code Section 17021.

**1.8.4.3.1 Retention of Plans.** The building department of every city, county, or city and county shall maintain an official copy, microfilm, or electronic or other type of photographic copy of the plans of every building, during the life of the building, for which the department issued a building permit.

#### Exceptions:

- (1) Single or multiple dwellings not more than two stories and basement in height.
- (2) Garages and other structures appurtenant to buildings listed in Exception 1.
- (3) Farm or ranch buildings appurtenant to buildings listed in Exception 1.
- (4) Any one-story building where the span between bearing walls does not exceed 25 feet (7620 mm), except a steel frame or concrete building.

All plans for common interest developments as defined in Section 4100 of the California Civil Code shall be retained. For additional information regarding plan retention and reproduction of plans by an enforcing agency, see Health and Safety Code Sections 19850 through 19852.

**1.8.4.4 Inspections.** Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or other regulations of the Department of Housing and Community Development.

#### 1.8.5 Right of Entry for Enforcement.

- **1.8.5.1 General.** Subject to other provisions of law, officers, and agents of the enforcing agency may enter and inspect public and private properties to secure compliance with the rules and regulations promulgated by the Department of Housing and Community Development. For limitations and additional information regarding enforcement, see the following:
- (1) For applications subject to State Housing Law as referenced in Section 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.
- (2) For applications subject to the Mobilehome Parks Act as referenced in Section 1.8.3.2.2 of this code, refer to Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200, and California Code of Regulations. Title 25, Division 1, Chapter 2, commencing with Section 1000.
- (3) For applications subject to the Special Occupancy Parks Act as referenced in Section 1.8.3.2.3 of this code, refer to Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860, and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.
- (4) For applications subject to the Employee Housing Act as referenced in Section 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Section 17000, and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.
- (5) For applications subject to the Factory-Built Housing Law as referenced in Section 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Section 19960, and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.

#### 1.8.6 Local Modification by Ordinance or Regulation.

**1.8.6.1 General.** Subject to other provisions of law, a city, county, or city and county may make changes to the provisions adopted by the Department of Housing and Community Development. If any city, county, or city and county does not amend, add, or repeal by local ordinances or regulations the provisions published in this code or other regulations promulgated by the Department of Housing and Community Development, those provisions shall be applicable and shall become effective 180 days after publication by the California Building Standards Commission. Amendments, additions, and deletions to this code adopted by a city, county, or city and county pursuant to California Health and Safety Code Sections 17958.5, 17958.7 and 18941.5, together with all applicable portions of this code, shall also become effective 180 days after publication of the California Building Standards Code by the California Building Standards Commission.

- **1.8.6.2 Findings, Filings, and Rejections of Local Modifications.** Prior to making any modifications or establishing more restrictive building standards, the governing body shall make express findings and filings, as required by California Health and Safety Code Section 17958.7, showing that such modifications are reasonably necessary due to local climatic, geological, or topographical conditions. No modification shall become effective or operative unless the following requirements are met:
- (1) The express findings shall be made available as a public record.
- (2) A copy of the modification and express finding, each document marked to cross-reference the other, shall be filed with the California Building Standards Commission for a city, county, or city and county, and with the Department of Housing and Community Development for fire protection districts.
- (3) The California Building Standards Commission has not rejected the modification or change.

Nothing in this section shall limit the authority of fire protection districts pursuant to California Health and Safety Code Section 13869.7(a).

- 1.8.7. Alternate Materials, Designs, Tests, and Methods of Construction.
  - **1.8.7.1 General.** The provisions of this code, as adopted by the Department of Housing and Community Development, are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, design, or method of construction not specifically prescribed by this code. Consideration and approval of alternates shall comply with Section 1.8.7.2 for local building departments and Section 1.8.7.3 for the Department of Housing and Community Development.
  - **1.8.7.2 Local Building Departments.** The building department of any city, county or city and county may approve alternates for use in the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition, or arrangement of apartments, condominiums, hotels, motels, lodging houses, dwellings, or accessory structures, except for the following:
  - (1) Structures located in mobilehome parks as defined in California Health and Safety Code Section 18214.
  - (2) Structures located in special occupancy parks as defined in California Health and Safety Code Section 18862.43.
  - (3) Factory-built housing as defined in California Health and Safety Code Section 19971.
    - **1.8.7.2.1 Approval of Alternates.** The consideration and approval of alternates by a local building department shall comply with the following procedures and limitations:
    - (1) The approval shall be granted on a case-by-case basis.
    - (2) Evidence shall be submitted to substantiate claims that the proposed alternate, in performance, safety, and protection of life and health, conforms to, or is at least equivalent to, the standards contained in this code and other rules and regulations promulgated by the Department of Housing and Community Development.
    - (3) The local building department may require tests performed by an approved testing agency at the expense of the owner or owner's agent as proof of compliance.
    - (4) If the proposed alternate is related to accessibility in covered multifamily dwellings or facilities serving covered multifamily dwellings as defined in Chapter 2 of the California Building Code, the proposed alternate must also meet the threshold set for equivalent facilitation as defined in Chapter 2 of the California Building Code.

For additional information regarding approval of alternates by a local building department pursuant to the State Housing Law, see California Health and Safety Code Section 17951(e) and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

- **1.8.7.3 Department of Housing and Community Development.** The Department of Housing and Community Development may approve alternates for use in the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, or demolition of apartments, condominiums, hotels, motels, lodging houses, dwellings, or accessory structures thereto, and permanent buildings in mobilehome parks and special occupancy parks. The consideration and approval of alternates shall comply with the following:
- (1) The department may require tests at the expense of the owner or owner's agent to substantiate compliance with the California Building Standards Code.

(2) The approved alternate shall, for its intended purpose, be at least equivalent in performance and safety to the materials, designs, tests, or methods of construction prescribed by this code.

#### 1.8.8 Appeals Board.

**1.8.8.1 General.** Every city, county, or city and county shall establish a process to hear and decide appeals of orders, decisions, and determinations made by the enforcing agency relative to the application and interpretation of this code and other regulations governing construction, use, maintenance and change of occupancy. The governing body of any city, county, or city and county may establish a local appeals board and a housing appeals board to serve this purpose. Members of the appeals board(s) shall not be employees of the enforcing agency and shall be knowledgeable in the applicable building codes, regulations and ordinances as determined by the governing body of the city, county, or city and county.

Where no such appeals boards or agencies have been established, the governing body of the city, county, or city and county shall serve as the local appeals board or housing appeals board as specified in California Health and Safety Code Sections 17920.5 and 17920.6.

1.8.8.2 Definitions. The following terms shall for the purposes of this section have the meaning shown.

**Housing Appeals Board.** The board or agency of a city, county, or city and county which is authorized by the governing body of the city, county, or city and county to hear appeals regarding the requirements of the city, county, or city and county relating to the use, maintenance, and change of occupancy of buildings and structures, including requirements governing alteration, additions, repair, demolition, and moving. In any area in which there is no such board or agency, "Housing Appeals Board" means the local appeals board having jurisdiction over the area.

**Local Appeals Board.** The board or agency of a city, county, or city and county which is authorized by the governing body of the city, county, or city and county to hear appeals regarding the building requirements of the city, county, or city and county. In any area in which there is no such board or agency, "Local Appeals Board" means the governing body of the city, county, or city and county having jurisdiction over the area.

**1.8.8.3 Appeals.** Except as otherwise provided by law, any person, firm, or corporation adversely affected by a decision, order, or determination by a city, county, or city and county relating to the application of building standards published in the California Building Standards Code, or any other applicable rule or regulation adopted by the Department of Housing and Community Development, or any lawfully enacted ordinance by a city, county, or city and county, may appeal the issue for resolution to the local appeals board or housing appeals board as appropriate.

The local appeals board shall hear appeals relating to new building construction and the housing appeals board shall hear appeals relating to existing buildings.

#### 1.8.9 Unsafe Buildings or Structures.

- **1.8.9.1 Authority to Enforce.** Subject to other provisions of law, the administration, enforcement, actions, proceedings, abatement, violations, and penalties for unsafe buildings and structures are contained in the following statutes and regulations:
- (1) For applications subject to <u>the</u> State Housing Law as referenced in Section 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.
- (2) For applications subject to the Mobilehome Parks Act as referenced in Section 1.8.3.2.2 of this code, refer to Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 and California Code of Regulations. Title 25, Division 1. Chapter 2, commencing with Section 1000.
- (3) For applications subject to the Special Occupancy Parks Act as referenced in Section 1.8.3.2.3 of this code, refer to Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.
- (4) For applications subject to the Employee Housing Act as referenced in Section 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.

- (5) For applications subject to the Factory-Built Housing Law as referenced in Section 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Section 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.
- **1.8.9.2 Actions and Proceedings.** Subject to other provisions of law, punishments, penalties and fines for violations of building standards are contained in the following statutes and regulations:
- (1) For applications subject to the State Housing Law as referenced in Section 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.
- (2) For applications subject to the Mobilehome Parks Act as referenced in Section 1.8.3.2.2 of this code, refer to Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000.
- (3) For applications subject to the Special Occupancy Parks Act as referenced in Section 1.8.3.2.3 of this code, refer to Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.
- (4) For applications subject to the Employee Housing Act as referenced in Section 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.
- (5) For applications subject to the Factory-Built Housing Law as referenced in Section 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Section 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.

#### 1.8.10 Other Building Regulations.

- **1.8.10.1 Existing Structures.** Notwithstanding other provisions of law, the replacement, retention, and extension of original materials and the use of original methods of construction for any existing building or accessory structure, or portions thereof, shall be permitted in accordance with the provisions of this code and the California Existing Building Code, as adopted by the Department of Housing and Community Development. For additional information, see California Health and Safety Code, Sections 17912, 17920.3, 17922 and 17958.8.
- **1.8.10.2 Moved Structures.** Subject to the requirements of California Health and Safety Code Sections 17922,17922.3 and 17958.9, local ordinances or regulations relating to a moved residential building or accessory structure thereto, shall permit the replacement, retention, and extension of original materials and the use of original methods of construction so long as the structure does not become or continue to be a substandard building.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

2. HCD proposes to adopt Chapter 1, Division II, Section 104.2 (Items 1-5) only, from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code without amendments:

#### DIVISION II ADMINISTRATION

104.2 Exempt Work.

Items (1) through (5)...(No change to text)

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

# 3. HCD proposes to adopt Chapter 2 from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code with new and existing amendments as follows:

### CHAPTER 2 DEFINITIONS

203.0 -A-

Approved. Acceptable to the Authority Having Jurisdiction.

**Exception:** (HCD 1 & HCD 2) "Approved" means meeting the approval of the Enforcing Agency, except as otherwise provided by law, when used in connection with any system, material, type of construction, fixture or appliance as the result of investigations and tests conducted by the agency, or by reason of accepted principles or tests by national authorities, or technical, health, or scientific organizations or agencies.

#### Notes:

- (1) See Health and Safety Code Section 17920 for "Approved" as applied to residential construction and buildings or structures accessory thereto, as referenced in Sections 1.8.2.1.1 and 1.8.2.1.2.
- (2) See Health and Safety Code Section 17921.1 for "Approved" as applied to the use of hotplates in residential construction referenced in Sections 1.8.2.1.1 and 1.8.2.1.2.
- (3) See Health and Safety Code Section 19966 for "Approved" as applied to Factory-Built Housing as referenced in Sections 1.8.2.1.1 and 1.8.2.1.2.
- (4) See Health and Safety Code Section 18201 for "Approved" as applied to Mobilehome Parks as referenced in Section 1.8.2.1.3.
- (5) See Health and Safety Code Section 18862.1 for "Approved" as applied to Special Occupancy Parks as referenced in Section 1.8.2.1.3.

**Approved Testing Agency.** An organization primarily established for purposes of testing to approved standards and approved by the Authority Having Jurisdiction. (*HCD 1 & HCD 2*) "Approved Testing Agency" is any agency which is determined by the Enforcing Agency, except as otherwise provided by statute, to have adequate personnel and expertise to carry out the testing of systems, materials, and various types of construction, fixtures or appliances.

**Assembly Building.** A building or a portion of a building used for the gathering together of 50 or more persons for such purposes as deliberation, education, instruction, worship, entertainment, amusement, drinking, dining, or awaiting transportation. (*HCD 1 & HCD 2*) Refer to the California Building Code, Title 24, Part 2, for use and occupancy classification.

**Authority Having Jurisdiction.** The organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, installations, or procedures. The Authority Having Jurisdiction shall be a federal, state, local, or other regional department or an individual such as a plumbing official, mechanical official, labor department official, health department official, building official, or others having statutory authority. In the absence of a statutory authority, the Authority Having Jurisdiction may be some other responsible party. This definition shall include the Authority Having Jurisdiction's duly authorized representative.

(HCD 1 & HCD 2) "Authority Having Jurisdiction" shall mean "Enforcing Agency" as defined in Section 207.0 of this code.

204.0 -B-

Building. (HCD 1 & HCD 2) Any structure used or intended for supporting or sheltering any use or occupancy.

Exceptions: "Building" shall not include the following:

- (1) Any mobilehome as defined in Health and Safety Code Section 18008.
- (2) Any manufactured home as defined in Health and Safety Code Section 18007.
- (3) Any commercial modular as defined in Health and Safety Code Section 18001.8 or any special purpose commercial modular as defined in Health and Safety Code Section 18012.5.
- (4) Any recreational vehicle as defined in Health and Safety Code Section 18010.
- (5) Any multifamily manufactured home, as defined in Health and Safety Code Section 18008.7.

For additional information, see Health and Safety Code Section 18908.

Building Code. The building code that is adopted by this jurisdiction. (HCD 1 & HCD 2) "Building Code" shall mean the California Building Code, Title 24, Part 2.

206.0 -D-

Department. (HCD 1 & HCD 2) "Department" means the Department of Housing and Community Development.

207.0 -E-

**Electrical Code**. The National Electrical Code promulgated by the National Fire Protection Association, as adopted by this jurisdiction. (**HCD 1 & HCD 2**) Whenever the term "Electrical Code" is used in this code, it shall mean the California Electrical Code, Title 24, Part 3.

Enforcing Agency. (HCD 1 & HCD 2) "Enforcing Agency" is the designated department or agency as specified by statute and regulation.

208.0 -F-

Family. (HCD 1) "Family" is an individual or two or more persons who are related by blood or marriage, or otherwise, live together in a dwelling unit.

214.0 -L

**Labeled.** Equipment or materials bearing a label of a listing agency (accredited conformity assessment body). See Listed (Third Party Certified). (HCD 1 & HCD 2) "Labeled" means equipment or materials to which has been attached a label, symbol or other identifying mark of an organization, approved by the Department, that maintains a periodic inspection program of production of labeled products, installations, equipment, or materials and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

**Listed (Third Party Certified).** Equipment or materials included in a list published by a listing agency (accredited conformity assessment body) that maintains periodic inspection on current production of listed equipment or materials and whose listing states either that the equipment or material complies with approved standards or has been tested and found suitable for use in a specified manner. (**HCD 1 & HCD 2**) "Listed" means all products that appear in a list published by an approved testing or listing agency. For additional information, see Health and Safety Code Section 17920(h).

Listing Agency. An agency accredited by an independent and authoritative conformity assessment body to operate a material and product listing and labeling (certification) system and that is accepted by the Authority Having Jurisdiction, which is in the business of listing or labeling. The system includes initial and ongoing product testing, a periodic inspection on current production of listed (certified) products, and that makes available a published report of such listing in which specific information is included that the material or product is in accordance with applicable standards and found safe for use in a specific manner. (HCD 1 & HCD 2) "Listing Agency" means an agency approved by the Department that is in the business of listing and labeling products, materials, equipment, and installations tested by an approved testing agency, and that maintains a periodic inspection program on current production of listed products, equipment, and installations, and that at least annually makes available a published report of these listings. For additional information, see Health and Safety Code Section 17920(i).

216.0 -N

Nuisance. (HCD 1 & HCD 2) "Nuisance" shall mean any nuisance as defined in Health and Safety Code Section 17920(k) (I).

#### Notes:

- 1. For applications subject to the Mobilehome Parks Act as referenced in Section 1.8.3.2.2 of this code, refer to California Code of Regulations, Title 25, Division 1, Chapter 2 for the definition of "Nuisance".
- 2. For applications subject to the Special Occupancy Parks Act as referenced in Section 1.8.3.2.3 of this code, refer to California Code of Regulations, Title 25, Division 1, Chapter 2.2 for the definition of "Nuisance".

217.0 -O-

Occupancy Classification. Classifications are defined in the building code.

(HCD 1 & HCD 2) Whenever the term "Building Code" is used in this code, it shall mean the California Building Code, Title 24, Part 2.

218.0 -P-

**Plumbing Code.** The Uniform Plumbing Code promulgated by the International Association of Plumbing and Mechanical Officials, as adopted by this jurisdiction.

(HCD 1 & HCD 2) Whenever the term "Plumbing Code" is used in this code, it shall mean the California Plumbing Code, Title 24, Part 5.

222.0 -T

Testing Agency. (HCD 1 & HCD 2) See "Approved Testing Agency".

223.0 -U-

**UMC.** (HCD 1 & HCD 2) The most recent edition of the Uniform Mechanical Code published by the International Association of Plumbing and Mechanical Officials.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

4. <u>HCD proposes to adopt Chapter 3 from the 2018 Uniform Mechanical Code</u> into the 2019 California Mechanical Code, with new and existing amendments as follows:

### CHAPTER 3 GENERAL REGULATIONS

303.0 Installation.

303.7 Liquefied Petroleum Gas Facilities. (No change to text)

**303.7.1 Liquefied Petroleum Gas** (LP-Gas) **Appliances.** (**HCD 1 & HCD 2**) Liquefied petroleum gas-burning appliances shall not be installed in a pit, basement, or similar location where heavier-than-air gas might collect. Appliances so fueled shall not be installed in an above-grade under-floor space or basement unless such location is provided with an approved means for removal of unburned gas.

**303.13 Pit Location** Where excavation is necessary to install an appliance, it shall extend to a depth of 6 inches (152 mm) below and 12 inches (305 mm) on all sides of the appliance, except on the service side, which shall have 30 inches (762 mm). Where the depth of the excavation for either the appliance or passageway exceeds 12 inches (305 mm), walls shall be lined with concrete or masonry 4 inches (102 mm) above the adjoining ground level.

Exception: (HCD 1 & HCD 2) Liquefied petroleum gas (LP-Gas) appliances as described in Section 303.7.1.

312.0 Plumbing Connections.

**312.1 General.** Water supply, sanitary drainage, and backflow protection shall be in accordance with the <del>plumbing code</del> California Plumbing Code.

316.0 Protection of Piping, Tubing, Materials, and Structures.

**316.2 Installation.** Piping or tubing shall be installed so that the piping, tubing, or connections will not be subject to undue strains or stresses, and provisions shall be made for expansion, contraction, and structural settlement. No piping or tubing, unless designed and listed for such use, shall be directly embedded in concrete or masonry. No structural member shall be seriously weakened or impaired by cutting, notching, or otherwise as defined in the building code California Building Code or California Residential Code.

**316.5 Fire-Resistant Construction.** Piping, tubing, and duct system penetrations of fire-resistance-rated walls, partitions, floors, floor/ceiling assemblies, roof/ceiling assemblies, or shaft enclosures shall be protected in accordance with the requirements of the <u>building code</u> <u>California Building Code or California Residential Code</u>.

**316.9 Structural Members.** A structural member weakened or impaired by cutting, notching, or otherwise shall be reinforced, repaired, or replaced so as to be left in a safe structural condition in accordance with the requirements of the building code California Building Code or California Residential Code.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

5. HCD proposes to adopt Chapter 4 from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code with new and existing amendments as follows:

### CHAPTER 4 VENTILATION AIR

402.0 Ventilation Air.

**402.3 Mechanical Ventilation.** Where natural ventilation is not permitted by this section or the building code <u>California Building Standards Code</u>, mechanical ventilation systems shall be designed, constructed, and installed to provide a method of supply air and exhaust air. Mechanical ventilation systems shall include controls, manual or automatic, that enable the fan system to operate wherever the spaces served are occupied. The system shall be designed to maintain minimum outdoor airflow as required by Section 403.0 under any load conditions.

**402.5 Bathroom Exhaust Fans. (HCD 1 & HCD 2)** Each bathroom shall be mechanically ventilated in accordance with Division 4.5 of the California Green Building Standards Code (CALGreen).

403.0 Ventilation Rates.

**403.7 Exhaust Ventilation.** (No change to text) **403.7.2 Enclosed Parking Garages.** (No change to text)

403.7.2.1 Alternative Exhaust Ventilation for Enclosed Parking Garages.

**403.7.2.2 Minimum Exhaust Rate. (HCD 1 & HCD 2)** In lieu of the exhaust rates of Table 403.7, ventilation systems shall be capable of providing 14,000 cfm (6608 L/s) of exhaust air for each operating vehicle. Number of operating vehicles shall be determined based on 2.5 percent of all parking spaces (and not less than one vehicle).

**403.7.2.3 Exhaust Inlet Distribution. (HCD 1 & HCD 2)** To ensure proper exhaust of contaminated air and fumes from parking garages, exhaust systems utilizing multiple exhaust inlets shall be designed so that exhaust inlets are distributed in such a manner that no portion of the parking garage is more than 50 feet (15,240 mm) from an exhaust inlet. Such exhaust inlets shall be installed so that the highest elevation of the exhaust inlet is no greater than 12 inches (305 mm) below the lowest ceiling level.

**Exception:** Garage exhaust systems designed without distributed exhaust inlets may have their exhaust inlets designed based on the principles of engineering and mechanics and shall provide the minimum required exhaust rate in Table 403.7.

**403.7.2.4 Exhaust System Operation. (HCD 1 & HCD 2)** Exhaust systems shall operate continuously unless one of the exceptions to continuous operation of Section 403.7.2 is utilized.

#### TABLE 403.7 MINIMUM EXHAUST RATES (ASHRAE 62.1: TABLE 6.5)

OCCUPANCY	EXHAUST RATE	EXHAUST RATE	AIR CLASS
CATEGORY <sup>8</sup>	cfm/unit	cfm/ft <sup>2</sup>	
Bathroom <sup>10,11,<u>12</u></sup>	20/50	-	2

#### Notes:

<sup>+011</sup>(HCD 1 & HCD 2) A bathroom is any room containing a bathtub a shower, a spa, or a similar source of moisture. <sup>+112</sup>(HCD 1 & HCD 2) ANSI/ASHRAE 62.2: Tables 5.1 & 5.2.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; Civil Code Section 1101.3 and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

## 6. <u>HCD proposes to adopt Chapter 5 from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code without amendments:</u>

### CHAPTER 5 EXHAUST SYSTEMS

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

# 7. HCD proposes to adopt Chapter 6, except Section 603.10.1, from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code with existing and new amendments as follows:

### CHAPTER 6 DUCT SYSTEMS

601.0 General.

**601.2 Sizing Requirements.** Duct systems shall be sized in accordance with an approved standard listed in Table 1701.1, or by other approved methods.

Exception: (HCD 1 & HCD 2) Duct sizing calculations are not required for existing duct systems.

602.0 Material.

- 602.2 Combustibles Within Ducts or Plenums. (No change to text)
- **602.2.1 Electrical.** Electrical wiring in plenums shall comply with NFPA 70 the California Electrical Code. Electrical wires and cables and optical fiber cables shall be listed and labeled for use in plenums and shall have a flame spread distance not exceeding 5 feet (1524 mm), an average optical density not exceeding 0.15, and a peak optical density not exceeding 0.5, where tested in accordance with NFPA 262.
- 603.0 Installation of Ducts.
- 603.3 Metal Ducts. (No change to text)
- **603.3.3 Earthquake Loads.** Ducts located in structures that are installed in areas classified as seismic design category C, D, E, or F shall be in accordance with the <u>building code</u> <u>California Building Code or California Residential</u> <u>Code</u>.
- 603.10 Joints and Seams of Ducts. (No change to text)
- **603.10.1 Duct Leakage Tests.** (Not adopted by HCD) Ductwork shall be leak tested in accordance with the SMACNA HVAC Air Duct Leakage Test Manual. Representative sections totaling not less than 10 percent of the total installed duct area shall be tested. Where the tested 10 percent fail to comply with the requirements of this section, then 40 percent of the total installed duct area shall be tested. Where the tested 40 percent fail to comply with the requirements of this section, then 100 percent of the total installed duct area shall be tested. Sections shall be selected by the building owner or designated representative of the building owner. Positive pressure leakage testing shall be permitted for negative pressure ductwork. The permitted duct leakage shall be not more than the following:

 $L_{max} = C_L P^{0.65}$  (Equation 603.10.1)

#### Where:

 $L_{max}$  = maximum permitted leakage, (ft<sup>3</sup>/min)/100 square feet [0.0001 (m<sup>3</sup>/s)/m<sup>2</sup>] duct surface area.

- $C_L = \text{Six}$ , duct leakage class, (ft³/min)/100 square feet [0.0001 (m³/s)/m²] duct surface area at 1 inch water column (0.2 kPa).
- P = test pressure, which shall be equal to the design duct pressure class rating, inch water column (kPa).
- 603.10.1.1 Duct Leakage Tests for Residential Buildings. (HCD 1 & HCD 2) See California Energy Code Section 150.0(m)(11) for low-rise residential; and Section 140.4(l) for duct leakage tests for other residential buildings.
- 605.0 Smoke Dampers, Fire Dampers, and Ceiling Dampers.
- **605.1 Smoke Dampers.** Smoke dampers shall comply with UL 555S, and shall be installed in accordance with the manufacturer's installation instructions where required by the <u>building code</u> <u>California Building Code or California Residential Code</u>.
- 606.0 Ventilating Ceilings.
- **606.1 General.** Perforated ceilings shall be permitted to be used for air supply within the limitations of this section. Exit corridors, where required to be of fire-resistive construction by the building code <u>California Building Code</u>, shall not have ventilating ceilings.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 8. <u>HCD proposes to adopt Chapter 7 from the 2018 Uniform Mechanical Code</u> into the 2019 California Mechanical Code without amendments:

### CHAPTER 7 COMBUSTION AIR

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

9. <u>HCD proposes to adopt Chapter 8 from the 2018 Uniform Mechanical Code</u> into the 2019 California Mechanical Code without amendments:

### CHAPTER 8 CHIMNEYS AND VENTS

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

10. HCD proposes to adopt Chapter 9, except Sections 911.2.2, 912.1, 930.0, and 930.1, from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code with new and existing amendments as follows:

### CHAPTER 9 INSTALLATION OF SPECIFIC APPLIANCES

- 911.0 Decorative Appliances for Installation in Vented Fireplaces.
- 911.2 Installation. (No change to text)
- 911.2.2 In Manufactured Homes. A decorative appliance for installation in a vented fireplace, where installed in a manufactured home, shall be listed for installation in manufactured homes. [NFPA 54:10.6.2.2] Reserved.
- 912.0 Gas Fireplaces, Vented.
- 912.1 Prohibited Installations. Vented gas fireplaces shall not be installed in bathrooms or bedrooms unless the

appliance is listed and the bedroom or bathroom has the required volume in accordance with Section 701.4.

**Exception:** Direct-vent gas fireplaces.

#### Reserved

912.2 Installation. The installation of vented gas fireplaces shall comply with the following requirements:

- (1) (HCD 1 & HCD 2) Any newly installed gas fireplace shall be a direct-vent sealed-combustion type.
- (2) Listed vented gas fireplaces shall be installed in accordance with their listing and the manufacturer's installation instructions and where installed in or attached to combustible material shall be specifically listed for such installation.
- (3) Unlisted vented gas fireplaces shall not be installed in or attached to combustible material. They shall have a clearance at the sides and rear of not less than 18 inches (457 mm). Combustible floors under unlisted vented gas fireplaces shall be protected in an approved manner. Unlisted appliances of other than the direct-vent type shall be equipped with a draft hood and shall be vented in accordance with Section 802.0. Appliances that use metal, asbestos, or ceramic material to direct radiation to the front of the appliance shall have a clearance of 36 inches (914 mm) in front and, where constructed with a double back of metal or ceramic, shall be installed with a clearance of not less than 18 inches (457 mm) at the sides and 12 inches (305 mm) at the rear.
- (4) Panels, grilles, and access doors that are required to be removed for normal servicing operations shall not be attached to the building.
- (5) Direct-vent gas fireplaces shall be installed with the vent air intake terminal in the outdoors and in accordance with the manufacturer's installation instructions.

#### 916.0 Room Heaters.

916.2 Gas-Fired Room Heaters. (No change to text)

**916.2.1 Prohibited Installations.** Unless specifically permitted by the Authority Having Jurisdiction, unvented room heaters shall not be installed as primary heat sources. Unvented room heaters shall not be permitted in spaces that do not have the required volume of indoor air as defined in Section 701.4.

(HCD 1 & HCD 2) Unvented fuel-burning room heaters shall not be installed, used, maintained, or permitted to exist in a Group R Occupancy.

916.2.1.1 Unvented Room Heaters. Unvented room heaters shall not be installed in bathrooms or bedrooms.

#### **Exceptions:**

- (1) Where approved by the Authority Having Jurisdiction, one listed wall-mounted unvented room heater equipped with an oxygen depletion safety shutoff system shall be permitted to be installed in a bathroom provided that the input rating shall not exceed 6000 Btu/h (1.76 kW) and combustion and ventilation air is provided as specified in Section 902.2.
- (2) Where approved by the Authority Having Jurisdiction, one listed wall-mounted unvented room heater equipped with an oxygen depletion safety shutoff system shall be permitted to be installed in a bedroom provided that the input rating shall not exceed 10 000 Btu/h (3 kW) and combustion and ventilation air is provided as specified in Section 902.2. (NFPA 54:10.22.1)
- (3) Portable oil fired unvented heating appliances used as supplemental heating in storage occupancies, utility occupancies, and in accordance with the fire code.

(HCD 1 & HCD 2) Unvented fuel-burning room heaters shall not be installed, used, maintained, or permitted to exist in a Group R Occupancy.

#### 930.0 Appliances for Installation in Manufactured Housing. (Not adopted by HCD)

**930.1 General.** (Not adopted by HCD) Appliances installed in manufactured housing after the initial sale shall be listed for installation in manufactured housing, or approved, and shall be installed in accordance with the requirements of this code and the manufacturer's installation instructions. Appliances installed in the living space of manufactured housing shall be in accordance with the requirements of Section 701.0. [NFPA 54:10.3010.29]

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 11. <u>HCD proposes to adopt Chapter 10 from the 2018 Uniform Mechanical Code</u> into the 2019 California Mechanical Code with new amendment as follows:

### CHAPTER 10 BOILERS AND PRESSURE VESSELS

1001.0 General.

**1001.2 Boiler Rooms and Enclosures.** Boiler rooms and enclosures shall comply with the building code <u>California</u> Building Code.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 12. HCD proposes to adopt Chapter 11 from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code without amendments:

## CHAPTER 11 REFRIGERATION

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 13. <u>HCD proposes to adopt Chapter 12 from the 2018 Uniform Mechanical Code</u> into the 2019 California Mechanical Code with new amendments as follows:

CHAPTER 12 HYDRONICS 1205.0 Installation, Testing, and Inspection.

**1205.2 Pressure Testing.** System piping and components shall be tested with a pressure of not less than one and one-half times and operating pressure but not less than 100 psi (689 kPa). Piping shall be tested with water or air except that plastic pipe shall not be tested with air. Text pressures shall be held for a period of not less than 30 minutes with no perceptible drop in pressure. These tests shall be made in the presence of the Authority Having Jurisdiction.

**Exception:** For PEX, PP-R, PP-RCT, PEX-AL-PEX, PE-RT, and PE-AL-PE piping systems, testing with air shall be permitted where authorized by the manufacturer's instructions for the PEX, PP-R, PP-RCT, PEX-AL-PEX, PE-RT, and PEAL-PE pipe and fittings products, and air testing is not prohibited by applicable codes, laws, or regulations outside this code.

**Note:** [HCD 1 & HCD 2] PEX-AL-PEX is not adopted in the California Plumbing Code for use in potable water supply and distribution systems.

1211.0 Joints and Connections.

- **1211.6 Cross-Linked Polyethylene/Aluminum/Cross-Linked Polyethylene (PEX-AL-PEX) Pipe.** Joints between cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe or fittings shall be installed in accordance with one of the following methods:
- (1) No change to text.
- (2) No change to text.

**Note:** [HCD 1 & HCD 2] PEX-AL-PEX is not adopted in the California Plumbing Code for use in potable water supply and distribution systems.

1217.0 Radiant Heating and Cooling.

### 1217.5 Poured Floor Structural Concrete Slab Systems (Thermal Mass)...

**1217.5.2 Insulation.** Where a poured concrete radiant floor system is installed in contact with the soil, insulation approved for such an application with a minimum R-value of 5 shall be placed between the soil and the concrete; extend to the outside edges of the concrete; and be placed on all slab edges.

(HCD 1 & HCD 2). See California Energy Code Section 110.8(g) for insulation requirements for heated slab floors.

**1217.5.4 Wall and Ceiling Panels.** Where piping is installed in the stud wall cavity or the ceiling joist cavity, the cavity shall be insulated with not less than R-12 material. The insulation shall be installed in such a manner as to prevent heating or cooling loss from the space intended to be controlled.

An air space of not less than 1 inch (25.4 mm) and not more than 3 inches (76 mm) shall be maintained between the insulation and the interior surface of the panel unless a conductive plate is installed.

(HCD 1 & HCD 2). See California Energy Code Sections 150.0(j)2 and 120.3(c) for pipe insulation requirements based on pipe diameter.

1220.0 Auxiliary Systems.

**1220.2 Snow and Ice Melt Controls.** (No change to text)

**1220.2.5 Insulation.** Where a poured concrete snow melt system is installed in contact with the soil, insulation that has a R-5 value shall be placed between the concrete and the compacted grade; extend as close as practical to the outside edges of the concrete; and be placed on vertical slab edges that are in contact with plants or landscaping.

(HCD 1 & HCD 2). See California Energy Code Section 110.8(g) for insulation requirements for heated slab floors.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 14. <u>HCD proposes to adopt Chapter 13 from the 2018 Uniform Mechanical Code</u> into the 2019 California Mechanical Code without amendments:

#### CHAPTER 13 FUEL GAS PIPING

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 15. <u>HCD proposes to NOT adopt Chapter 14 from the 2018 Uniform Mechanical Code.</u>

### CHAPTER 14 PROCESS PIPING

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

# 16. <u>HCD proposes to adopt Chapter 15 from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code with new and existing amendments as follows:</u>

#### CHAPTER 15 SOLAR ENERGY SYSTEMS

**1502.0 General. (HCD 1 & HCD 2)** For applications listed in Section 1.8.2 regulated by the Department of Housing and Community Development, see Health and Safety Code Section 17959.1, Civil Code <u>Sections</u> 714, <u>and</u> 801.5, and Government Code Section 65850.5.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 17. <u>HCD proposes to adopt Chapter 16 from the 2018 Uniform Mechanical Code into the 2019 California Mechanical Code without amendments</u>:

#### CHAPTER 16 STATIONARY POWER PLANTS

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 18. <u>HCD proposes to adopt Chapter 17 from the 2018 Uniform Mechanical Code</u> into the 2019 California Mechanical Code without amendments:

### CHAPTER 17 REFERENCED STANDARDS

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 19. <u>HCD proposes to NOT adopt Appendix A from the 2018 Uniform Mechanical</u> Code.

# APPENDIX A RESIDENTIAL PLAN EXAMINER REVIEW FORM FOR HVAC SYSTEM DESIGN (Loads, Equipment, Ducts) [ACCA]

Appendix note: The provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 20. <u>HCD proposes to NOT adopt Appendix B from the 2018 Uniform Mechanical</u> Code.

### APPENDIX B PROCEDURES TO BE FOLLOWED TO PLACE GAS EQUIPMENT IN OPERATION

**Appendix note:** The provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance.

#### NOTE

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 21. <u>HCD proposes to NOT adopt Appendix C from the 2018 Uniform Mechanical</u> Code.

### APPENDIX C INSTALLATION AND TESTING OF OIL (LIQUID) FUEL-FIRED EQUIPMENT

Appendix note: The provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 22. <u>HCD proposes to NOT adopt Appendix D from the 2018 Uniform Mechanical</u> Code:

#### **APPENDIX D**

FUEL SUPPLY: MANUFACTURED/MOBILE HOME PARKS AND RECREATIONAL VEHICLE PARKS

Appendix note: The provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance.

#### NOTF:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 23. <u>HCD proposes to NOT adopt Appendix E from the 2018 Uniform Mechanical Code.</u>

### APPENDIX E SUSTAINABLE PRACTICES

Appendix note: The provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 24. <u>HCD proposes to NOT adopt Appendix F from the 2018 Uniform Mechanical</u> Code.

# APPENDIX F SIZING OF VENTING SYSTEMS AND OUTDOOR COMBUSTION AND VENTILATION OPENING DESIGN

(The content of this Appendix is based on Annex F and Annex I of NFPA 54)

Appendix note: The provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## 25. <u>HCD proposes to NOT adopt Appendix G from the 2018 Uniform Mechanical</u> Code.

### APPENDIX G EXAMPLE CALCULATION OF OUTDOOR AIR RATE

**Appendix note:** The provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance.

#### NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.