# APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION

# December 14, 2021

# FINAL EXPRESS TERMS

# FOR PROPOSED BUILDING STANDARDS OF THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT REGARDING THE **2022 CALIFORNIA MECHANICAL CODE**, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART **4**

# (HCD 01/21)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation: shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, italic and ellipsis.

## LEGEND for EXPRESS TERMS

* Model Code language appears upright
* Existing California amendments appear in *italic*
* Amended model code or new California amendments appear *underlined & italic*
* Repealed model code language appears ~~upright and in strikeout~~
* Repealed California amendments appear in *~~italic and strikeout~~*
* Ellipsis ( ...) indicate existing text remains unchanged

## FINAL EXPRESS TERMS

### Item 1: HCD proposes to bring forward Chapter 1, Division 1, Sections 1.1 and 1.8, from the 2019 California Mechanical Code for adoption into the 2022 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 ~~2018~~ 2021 Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials with necessary California amendments.*

***1.1.2 Purpose.*** *The purpose …*

***1.1.3 Scope.*** *The provisions …*

***1.1.3.1 Non-State-Regulated Buildings, Structures, and Applications.*** *Except as* ***…***

***1.1.3.2 State-Regulated Buildings, Structures, and Applications.*** *The model …*

***1.1.4 Appendices.*** *Provisions contained …*

***1.1.5 Referenced Codes.*** *The codes, …*

***1.1.6 Non-Building Standards, Orders, and Regulations.*** *Requirements contained …*

***1.1.7 Order of Precedence and Use.***

***1.1.7.1 Differences.*** *In the event …*

***1.1.7.2 Specific Provisions.*** *Where a specific …*

***1.1.7.3 Conflicts.*** *When the requirements …*

***1.1.7.3.1******Detached One- and Two-Family Dwellings.*** *Detached ~~one-and~~ 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 …*

***1.1.8.1 Findings and Filings. …***

*1 and 2 (No change to California amendment.)*

*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 278180, Sacramento, CA 95827-8180 or 9342 Tech Center ~~Dr.~~ Drive, Suite 500, Sacramento, CA 95826-2582.*

***1.1.8.2 Locally Adopted Energy Standards – California Energy Code, Part 6.*** *In addition …*

***1.1.9 Effective Date of this Code.*** *Only those …*

***Exceptions:***

***(1) [HCD 1 & HCD]*** *Retroactive permits …*

***(2) [HCD 1 & HCD 2]*** *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~~ 3037 remain valid for a period of 36 months from the date of plan approval.*

***1.1.10 Availability of Codes.*** *At least one …*

**1.1.11 Format.** This part …

***1.1.12 Validity.*** *If any …*

***1.8.0 Department of Housing and Community Development. (HCD)***

***1.8.1 Purpose.*** *The purpose of …*

***1.8.2 Authority and Abbreviations.***

***1.8.2.1 General.*** *The Department of …*

***1.8.2.1.1 Housing Construction.***

***Application*** *- Hotels, …*

***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, 17922.15, 17926, 17927, 17928, 17958.12, ~~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*** *--**Business and Professions Code Division 5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.6, 18941, 19890, 19891, 19892 and ~~Sections~~ 19960 through 19997; Civil Code Sections 832, 1101.4, 1101.5 ~~and~~, 1954.201, 1954.202 and 5551; and Government Code Sections 8698.4, 12955.1 and 12955.1.1. California Code of Regulations, Title 20, Sections 1605.1, 1605.3 and 1607.*

***1.8.2.1.2 Housing Accessibility.***

***Application***– *Covered multifamily dwellings …*

***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, 17926, 17927, 17928, 17958.12, ~~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 and 12955.1.1.*

***References*** *-- Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.6, 18941 and 19960 through 19997; Civil Code Sections 1101.4, 1101.5 ~~and~~, 1954.201, 1954.202; and Government Code Sections 12955.1 and 12955.1.1. California Code of Regulations, Title 20, Sections 1605.1, 1605.3 and 1607.*

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

***Application*** *- Permanent buildings, …*

***Enforcing Agency*** *– The Department of …*

***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, 17922.15, 17926, 17927, 17928, 17958.12, ~~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, 18938.6, 18941, 19890, 19891, 19892 and 19960 through 19997; Civil Code Sections 1101.4, 1101.5 and 1954.201; and Government Code Sections 12955.1 and 12955.1.1. California Code of Regulations, Title 20, Sections 1605.1, 1605.3 and 1607; and Title 25, Sections 1042 and 2042.*

***1.8.3 Local Enforcing Agency.***

***1.8.3.1 Duties and Powers.*** *The building department …*

***1.8.3.2 Laws, Rules, and Regulations.*** *Other than …*

***1.8.3.2.1 State Housing Law.*** *Refer to …*

***1.8.3.2.2 Mobilehome Parks Act.*** *Refer to …*

***Exception:*** *Mobilehome parks …*

***1.8.3.2.3 Special Occupancy Parks Act.*** *Refer to …*

***Exception:*** *Special occupancy parks …*

***1.8.3.2.4 Employee Housing Act.*** *Refer to …*

***1.8.3.2.5 Factory-Built Housing Law.*** *Refer to …*

***1.8.4 Permits, Fees, Applications, and Inspections.***

***1.8.4.1 Permits.*** *A written construction permit …*

***Exceptions:***

*1 through 3 (No change to California amendments.)*

***1.8.4.2 Fees.*** *Subject to …*

***1.8.4.3 Plan Review and Time Limitations.*** *Subject to …*

***1.8.4.3.1 Retention of Plans.*** *The building department …*

***Exceptions:***

*1 through 4 (No change to existing California amendments.)*

***1.8.4.4 Inspections.*** *Construction or work …*

***1.8.5 Right of Entry for Enforcement.***

***1.8.5.1 General.*** *Subject to …*

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

***1.8.6.1 General.*** *Subject to …*

***1.8.6.2 Findings, Filings, and Rejections of Local Modifications.*** *Prior to …*

***1.8.7 Alternate Materials, Designs, Tests, and Methods of Construction.***

***1.8.7.1 General.*** *The provisions …*

***1.8.7.2 Local Building Departments.*** *The building department …*

***1.8.7.2.1 Approval of Alternates.*** *The consideration …*

***1.8.7.3 Department of Housing and Community Development.*** *The Department …*

***1.8.8 Appeals Board.***

***1.8.8.1 General.*** *Every city, county, or city and county …*

***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 …*

***Local Appeals Board.*** *The board or agency …*

***1.8.8.3 Appeals.*** *Except as otherwise provided …*

***1.8.9 Unsafe Buildings or Structures.***

***1.8.9.1 Authority to Enforce.*** *Subject to …*

***1.8.9.2 Actions and Proceedings.*** *Subject to …*

***1.8.10 Other Building Regulations.***

***1.8.10.1 Existing Structures.*** *Notwithstanding other …*

***1.8.10.2 Moved Structures.*** *Subject to …*

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17926, 17927, 17928, 17958.12, 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 Sections 12955.1 and 12955.1.1.

**Reference(s):** Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.6, 18941, 18941.5, 19890, 19891, 19892 and 19960 through 19997; Civil Code Sections 1101.4, 1101.5, 1954.201, 1954.202 and 5551; and Government Code Sections 8698.4, 12955.1, 12955.1.1 and 65852.2. California Code of Regulations, Title 20, Sections 1605.1, 1605.3 and 1607.

### Item 2: HCD proposes to adopt Chapter 1, Division II, Section 104.2 (Items 1-5) only, from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code without amendments:

**DIVISION II** **ADMINISTRATION**

**104.2 Exempt Work.** (No change to model code text.)

A permit shall not be required for the following:

(1) The stopping of leaks …

(2) The clearing of stoppages …

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### Item 3: HCD proposes to adopt Chapter 2 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code, and to bring forward existing amendments as follows:

**CHAPTER 2** **DEFINITIONS**

**203.0** -**A**-

***Accessory Dwelling Unit. [HCD 1 & HCD 2]*** (No change to CA amendment)

**Approved.**

***Exception: [HCD 1 & HCD 2]*** (No change to CA amendment)

**Approved Testing Agency.** (No change to CA amendment)

**Assembly Building.**(No change to CA amendment)

**Authority Having Jurisdiction*.***

***[HCD 1 & HCD 2]*** (No change to CA amendment)

**204.0** -**B**-

***Building.*** (No change to CA amendment)

**Building Code.** (No change to CA amendment)

**206.0** -**D**-

***Department.*** (No change to CA amendment)

**207.0** -**E**-

**Electrical Code.** (No change to CA amendment)

***Enforcing Agency.*** (No change to CA amendment)

**208.0** -**F**-

***Family.*** (No change to CA amendment)

**214.0** -**L**-

**Labeled.** (No change to CA amendment)

**Listed (Third Party Certified).** (No change to CA amendment)

**Listing Agency.** (No change to CA amendment)

**216.0** -**N**-

***Nuisance.*** (No change to CA amendment)

**217.0** -**O**-

**Occupancy Classification*.*** (No change to CA amendment)

**218.0** -**P**-

**Plumbing Code.** (No change to CA amendment)

**222.0** -**T**-

***Testing Agency.*** (No change to CA amendment)

**223.0** -**U**-

***UMC.*** (No change to CA amendment)

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 4: HCD proposes to adopt Chapter 3 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code, with existing California amendments as follows:

**CHAPTER 3** **GENERAL REGULATIONS**

***303.7.1 Liquefied Petroleum Gas (LP-Gas) Appliances.*** (No change to CA amendment)

**…**

**305.2 (formerly 303.13) Pit Location.**

***Exception:***(No change to CA amendment)

**…**

**311.2 Air Filters.** Air filters shall be …

**Exceptions:**

(1) …

(2) …

***~~[HCD 1 & HCD 2]~~*** *~~In mechanically ventilated residential buildings, air filters shall be provided to clean outdoor and return air prior to its delivery to occupied spaces. The air filters shall comply with the California Energy Code requirements for labeling, ventilation system design and installation, air filter efficiency, and air filter pressure drop, as applicable.~~*

*~~See California Energy Code Subchapters 3, 6, 7, and 9 for requirements related to air filtration for residential occupancies.~~*

**…**

**316.2 Installation.** Piping or tubing shall be installed … defined in the ~~building code~~ *California Building Code or California Residential Code*. (No change to CA amendment)

**…**

**316.5 Fire-Resistant Construction.** Piping, tubing, and duct system … the requirements of the ~~building code~~ *California Building Code or California Residential Code*. (No change to CA amendment)

**…**

**316.9 Structural Members.** A structural member … the requirements of the ~~building code~~ *California Building Code or California Residential Code*. (No change to CA amendment)

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s)**: Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 5: HCD proposes to adopt Chapter 4 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code with new and existing California amendments as follows:

**CHAPTER 4** **VENTILATION AIR**

***~~402.5~~ Bathroom Exhaust Fans.*** (No change to CA amendment; moved to Section 405.3)

**…**

**Table 403.7 MINIMUM EXHAUST RATES.** (No change to model code table.)

**Notes:**

…

*11 [HCD 1 & HCD 2] A bathroom is …* ***.*** *(No change to CA amendment)*

*12 [HCD 1 & HCD 2] ANSI/ASHRAE 62.2: Tables 5.1 and 5.2.**(No change to CA amendment)*

***403.7.2.1 Alternative Exhaust Ventilation for Enclosed Parking Garages.*** (No change to CA amendment)

***403.7.2.2 Minimum Exhaust Rate.*** (No change to CA amendment)

***403.7.2.3 Exhaust Inlet Distribution.*** (No change to CA amendment)

***Exception:***(No change to CA amendment)

***403.7.2.4 Exhaust System Operation.*** (No change to CA amendment)

**…**

**405.3 Bathroom Exhaust.** A mechanical exhaust directly to the outdoors … provided for intermittent operations. ***[HCD 1 & HCD 2]*** *Each bathroom shall also be mechanically ventilated in accordance with Division 4.5 of the California Green Building Standards Code (CALGreen).*

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s)**: Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 6: HCD proposes to adopt Chapter 5 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code without amendments:

**CHAPTER 5****EXHAUST SYSTEMS**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 7: HCD proposes to adopt Chapter 6, except Section 603.9.2 (formerly section 603.10.1), from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code with existing California amendments as follows:

**CHAPTER 6** **DUCT SYSTEMS**

**601.2 Sizing Requirements.** Duct systems shall be sized in accordance with applicable standard in Chapter 17 or by other approved methods.

***~~Exception:~~*** *~~[~~****~~HCD 1 & HCD 2]~~*** *~~Duct sizing calculations are not required for existing duct systems.~~*

**…**

**602.2.1 Electrical.** (No change to CA amendment)

**…**

**603.3.1 (formerly 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 ~~building code~~ *California Building Code or California Residential Code*. (No change to CA amendment)

**…**

**603.9.2 (formerly 603.10.1) Duct Leakage Tests.** ***[Not adopted by HCD]*** (No change to text)

**…**

***~~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.~~*

**…**

**606.1 (formerly 605.1) Smoke Dampers.** (No change to CA amendment)

**…**

**607.1 (formerly 606.1) General.** (No change to CA amendment)

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s)**: Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 8: HCD proposes to adopt Chapter 7 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code without amendments:

**CHAPTER 7** **COMBUSTION AIR**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 9: HCD proposes to adopt Chapter 8 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code without amendments:

**CHAPTER 8** **CHIMNEYS AND VENTS**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 10: HCD proposes to adopt Chapter 9, except Sections 911.2.2, 912.1, 930.0, and 930.1, from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code with new and existing California amendments as follows:

**CHAPTER 9** **INSTALLATION OF SPECIFIC APPLIANCES**

**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 manufacture homes. [NFPA 54:10.6.2.2]~~ ***Reserved.*** (No change to CA amendment)

***…***

**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*** (No change to CA amendment)

**912.2 Installation.** (No change to CA amendment)

**…**

**916.2.1 Prohibited Installations.** (No change to CA amendment)

**916.2.1.1 Unvented Room Heaters.** (No change to CA amendment)

**…**

**930.0 Appliances for Installation in Manufactured Housing. *[Not adopted by HCD]*** (No change to text)

**…**

**930.1 General. [*Not adopted by HCD]*** (No change to text)

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 11: HCD proposes to adopt Chapter 10 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code and to bring forward existing California amendments as follows:

**CHAPTER 10** **BOILERS AND PRESSURE VESSELS**

**1001.2 Boiler Rooms and Enclosures.** (No change to California amendment)

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

**ITEM 12: HCD proposes to adopt Chapter 11 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code with the following without amendments:**

**CHAPTER 11** **REFRIGERATION**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 13: HCD proposes to adopt Chapter 12 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code with existing amendments and repealed amendments as follows:

**CHAPTER 12** **HYDRONICS**

**1205.2 Pressure Testing.** (No change to CA amendment)

**…**

**1211.6 Cross-Linked Polyethylene/Aluminum/Cross-Linked Polyethylene (PEX-AL-PEX) Pipe.** (No change to CA amendment)

**…**

**1217.5.2 Insulation.** Where a poured concrete radiant floor system is installed in contact with the soil, insulation recommended by the manufacturer for such an application and 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.~~*

**...**

**1217.7 (formerly 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.~~*

**...**

**1220.4.5 (formerly 1220.2.5) Insulation.** Where a poured concrete snow melt system is installed in contact with the soil, insulation recommended by the manufacturer for such application and with a minimum R-value of 5 shall be placed between the concrete and the compacted grade; and be extended as close as practicable to the outside edges of the concrete.

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

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 14: HCD proposes to adopt Chapter 13 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code without amendments:

**CHAPTER 13** **FUEL GAS PIPING**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 15: HCD proposes to NOT adopt Chapter 14 from the 2021 Uniform Mechanical Code.

**CHAPTER 14** **PROCESS PIPING**

**Notation:**

**Authority**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s)**: Civil Code Sections 714 and 801.5; 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 65850.5 and 65852.2.

### ITEM 16: HCD proposes to adopt Chapter 15 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code and bring forward existing California amendments as follows:

**CHAPTER 15** **SOLAR ENERGY SYSTEMS**

***1502.0 General.***(No change to CA amendment)

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 17: HCD proposes to adopt Chapter 16 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code without amendments:

**CHAPTER 16** **STATIONARY POWER PLANTS**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 18: HCD proposes to adopt Chapter 17 from the 2021 Uniform Mechanical Code into the 2022 California Mechanical Code without amendments:

**CHAPTER 17** **REFERENCED STANDARDS**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 19: HCD proposes to NOT adopt Appendix A from the 2021 Uniform Mechanical Code.

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

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 20: HCD proposes to NOT adopt Appendix B from the 2021 Uniform Mechanical Code.

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

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4,18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 21: HCD proposes to NOT adopt Appendix C from the 2021 Uniform Mechanical Code.

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

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 22: HCD proposes to NOT adopt Appendix D from the 2021 Uniform Mechanical Code:

**APPENDIX D** **FUEL SUPPLY: MANUFACTURED/MOBILE HOME PARKS AND RECREATIONAL VEHICLE PARKS**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 23: HCD proposes to NOT adopt Appendix E from the 2021 Uniform Mechanical Code.

**APPENDIX E** **SUSTAINABLE PRACTICES**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.

### ITEM 24: HCD proposes to NOT adopt Appendix F from the 2021 Uniform Mechanical Code.

**APPENDIX F** **GEOTHERMAL ENERGY SYSTEMS**

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

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.

### ITEM 25: HCD proposes to NOT adopt Appendix G from the 2021 Uniform Mechanical Code.

**APPENDIX G** **SIZING OF VENTING SYSTEMS AND OUTDOOR COMBUSTION  
AND VENTILATION OPENING DESIGN**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.

### ITEM 26: HCD proposes to NOT adopt Appendix H from the 2021 Uniform Mechanical Code.

**APPENDIX H**  
**EXAMPLE CALCULATION OF OUTDOOR AIR RATE**

**Notation:**

**Authority:** Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 17958.12, 18552, 18620, 18690, 18865, 18871.3, 18873, 18873.4, 18938.3 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

**Reference(s):** Civil Code Sections 714 and 801.5; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997; and Government Code Sections 65850.5 and 65852.2.