

**INITIAL STATEMENT OF REASONS  
FOR PROPOSED 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 01/18)**

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The Administrative Procedure Act (APA) requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

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**STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE and BENEFITS:**

Government Code Section 11346.2(b)(1) requires a statement of specific purpose of each adoption, amendment, or repeal and the problem the agency intends to address and the rationale for the determination by the agency that each adoption, amendment, or repeal is reasonably necessary to carry out the purpose and address the problem the agency intends to address for which it is proposed. The statement shall enumerate the benefits anticipated from the regulatory action, including the benefits or goals provided in the authorizing statute.)

**1). The Public Problem, Administrative Requirement, or Other Circumstance Addressed.**

**Administrative Requirement:** Health and Safety Code Section 17921 directs the Department of Housing and Community Development (HCD) to propose adoption, amendment or repeal of building standards for the protection of public health, safety and general welfare.

**2). Specific Purpose**

The California Building Standards Commission (CBSC) selected the 2018 Uniform Mechanical Code (UMC), published by the International Association of Plumbing and Mechanical Officials (IAPMO), as the model code to be referenced in Title 24, Part 4, for the 2018 Triennial Code Adoption Cycle.

The specific purpose of these regulations is to adopt by reference the 2018 edition of the UMC, with California Amendments, into the 2019 California Mechanical Code (California Code of Regulations (CCR), Title 24, Part 4), for the following programs:

- a) **State Housing Law Program:** relative to residential occupancies, buildings or structures accessory thereto and as provided in Health and Safety Code Section 17921.2.
- b) **Employee Housing Program:** relative to any building or structure or outdoors on premises or property in accordance with Health and Safety Code Section 17040.
- c) **Mobilehome Parks and Special Occupancy Parks Programs:** relative to the use of plumbing equipment and systems in or on any permanent buildings, accessory buildings, and structures under the ownership and control of the park operator, within the park, in accordance with Health and Safety Code Section 18300 for mobilehome parks, and Health and Safety Code Section 18865 for special occupancy parks.
- d) **Factory-Built Housing Program:** relative to residential buildings, dwellings or portions thereof, or building components, or manufactured assemblies in accordance with Health and Safety Code Section 19990.

### 3). Rationale for Necessity

The 2018 UMC was published by IAPMO and will automatically become adopted in its entirety, pursuant to Health and Safety Code Section 17922 (b), one year from its date of publication if not amended and proposed by HCD to the CBSC for adoption.

If the 2018 UMC becomes adopted in its entirety without being proposed for adoption with amendments by HCD to the CBSC, such automatic adoption would cause considerable confusion because California Amendments are necessary modifications to the model code language to ensure that the 2019 California Mechanical Code (CMC) is consistent with state law and unique California conditions.

**It is necessary to propose the adoption** of some sections of the 2018 UMC, with amendments to the model code language, to incorporate state and federal laws and regulations, and to benefit the health, safety, and general welfare of California residents.

**It is necessary to not propose the adoption** of some sections of the 2018 UMC, as they would conflict with certain existing state and federal laws, and would not benefit the health, safety, and general welfare of California residents.

**It is necessary to propose the removal** of some California Amendments previously proposed and adopted in the 2016 CMC that are duplicated or replaced by similar new model code language, or incorporated state and federal laws, and are no longer necessary.

**It is necessary to propose to bring forward** previously existing California Amendments. Some existing amendments will be brought forward without any changes and will represent no change in their effect from the 2016 CMC. Other previously existing California Amendments will be changed as explained below.

## **Specific Proposed Regulatory Actions:**

HCD proposes to adopt by reference the 2018 edition of the UMC with amendments into the 2019 CMC. These proposed amendments are intended to provide clarity, specificity and direction to the code user and to implement and make specific existing state laws. These proposed amendments are a result of recommendations developed during the public participation period prior to submittal to the California Building Standards Commission (CBSC) to be included in the 2018 Triennial Code Adoption Cycle. The rationale for each amendment by chapter and section is listed below.

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### **1. CHAPTER 1 ADMINISTRATION**

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

#### **1.1.0 General**

##### **1.1.1. Title**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification updates the reference to the UMC from the 2015 UMC to the 2018 UMC.

##### **1.1.2 Purpose.**

##### **1.1.3 Scope.**

##### **1.1.3.1 Nonstate-Regulated Buildings, Structures, and Applications.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

##### **1.1.3.2 State-Regulated Buildings, Structures, and Applications.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with editorial modifications. The proposed modifications align the language in this section with the language in other parts of Title 24. There is no intended change in regulatory effect.

#### **1.1.4 Appendices.**

#### **1.1.5 Referenced Codes.**

#### **1.1.6 NonBuilding Standards, Orders and Regulations.**

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

##### **1.1.7.1 Differences.**

##### **1.1.7.2 Specific Provisions.**

##### **1.1.7.3 Conflicts.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

##### **1.1.7.3.1 Detached one- and two-family dwellings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with editorial modifications. The proposed modifications align the language in this section with the language in other parts of Title 24. There is no intended change in regulatory effect.

#### **1.1.8 City, County, or City and County Amendments, Additions or Deletions.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendment. This existing amendment is brought forward from the 2016 CMC into the 2019 CMC without modification.

##### **1.1.8.1 Findings and Filings:**

**Rationale:** HCD proposes to continue adoption of the above referenced section with nonsubstantive editorial modifications. The proposed modifications align the language in this section with the language in other parts of Title 24. There is no intended change in regulatory effect.

##### **1.1.8.2 Locally Adopted Energy Standards – California Energy Code, Part 6.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with nonsubstantive editorial modification to provide the correct reference to Section 1.1.8.1. The proposed modification aligns the language in this section with the language in other parts of Title 24. There is no intended change in regulatory effect.

#### **1.1.9 Effective Date of this Code.**

**Rationale:** HCD proposes to adopt the above referenced section with new exception, which provides clarification of effective dates for HCD-approved plans for factory-built housing (FBH). Pursuant to the California Code of Regulations, Title 25, Section 3048, implementing the Factory-Built Housing Law (Health and Safety Code Section 19960 *et seq.*), FBH plans are valid for a period of 36 months from the date of approval. This allows approved plans to be valid during a period overlapping two triennial codes. The proposed exception has no change in regulatory effect, but provides a clear reference for code users that FBH plans approved and in compliance with a prior code may still be valid for building permits submitted during the effective period of the subsequent code.

#### **1.1.10 Availability of Codes.**

#### **1.1.11 Format.**

#### **1.1.12 Validity.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

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

#### **1.8.1 Purpose.**

#### **1.8.2 Authority and Abbreviations**

##### **1.8.2.1 General.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

##### **1.8.2.1.1 Housing Construction**

**Rationale:** HCD proposes to continue adoption of the above referenced sections with new editorial modification to the “Authority Cited” and “Reference.” There is no change in regulatory effect.

##### **1.8.2.1.2 Housing Accessibility**

**Rationale:** HCD proposes to continue adoption of the above referenced section with nonsubstantive editorial modifications to the “Application.” HCD also proposes to modify the “Authority Cited” and “Reference.” Sections. The proposed modifications provide clarity and consistency with all parts of Title 24. There is no intended change in regulatory effect.

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

**Rationale:** HCD proposes to continue adoption of the above referenced section with new modifications to “Enforcing Agency,” “Authority Cited” and “Reference.” The new modifications provide clarity and consistency with all other parts of Title 24. There is no intended change in regulatory effect.

#### **1.8.3 Local Enforcing Agency.**

##### **1.8.3.1 Duties and Powers.**

##### **1.8.3.2 Laws, Rules, and Regulations.**

###### **1.8.3.2.1 State Housing Law.**

###### **1.8.3.2.2 Mobilehome Parks Act.**

###### **1.8.3.2.3 Special Occupancy Parks Act.**

###### **1.8.3.2.4 Employee Housing Act.**

###### **1.8.3.2.5 Factory-Built Housing Law.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

#### **1.8.4 Permits, Fees, Applications, And Inspections.**

##### **1.8.4.1 Permits.**

##### **1.8.4.2 Fees.**

##### **1.8.4.3 Plan Review and Time Limitations.**

###### **1.8.4.3.1 Retention of Plans.**

##### **1.8.4.4 Inspections.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

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

##### **1.8.5.1 General**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new nonsubstantive editorial modifications. The new modifications provide clarity and consistency with all other parts of Title 24. There is no intended change in regulatory effect.

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

##### **1.8.6.1 General**

##### **1.8.6.2 Findings, Filings, and Rejections of Local Modifications**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

#### **1.8.7 Alternate Materials, Designs, Tests, And Methods of Construction.**

##### **1.8.7.1 General**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new nonsubstantive editorial modifications. The new modifications provide clarity and consistency with all other parts of Title 24. There is no intended change in regulatory effect.

##### **1.8.7.2 Local Building Departments.**

###### **1.8.7.2.1 Approval of Alternates.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

### **1.8.7.3 Department of Housing and Community Development.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendment with new modification to reflect the applications identified as “HCD 2” under HCD’s scope in Sections 1.1.3.2 (9) and 1.8.2.1.3. The new modification provides clarity and consistency with all other parts of Title 24. There is no intended change in regulatory effect.

## **1.8.8 Appeals Board.**

### **1.8.8.1 General.**

### **1.8.8.2 Definitions.**

### **1.8.8.3 Appeals.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

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

### **1.8.9.1 Authority to Enforce.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new nonsubstantive editorial modification. The new modification provides clarity and consistency with all other parts of Title 24. There is no intended change in regulatory effect.

### **1.8.9.2 Actions and Proceedings.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

## **1.8.10 Other Building Regulations.**

### **1.8.10.1 Existing Structures.**

### **1.8.10.2 Moved Structures.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2016 CMC into the 2019 CMC without modification.

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## **2. DIVISION II ADMINISTRATION**

HCD proposes to adopt Chapter 1, Division II, Section 104.2 (Items 1-5) only, from the 2018 UMC into the 2019 CMC without amendments.

### **104.2 Exempt Work.**

**Rationale:** HCD proposes to adopt Chapter 1, Division II, Section 104.2 (Items 1-5) only, from the 2018 UMC into the 2019 CMC without amendments.

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## **3. CHAPTER 2 DEFINITIONS**

**Rationale:** HCD proposes to continue adoption of the existing California amendments in Chapter 2. These amendments have been brought forward from the 2016 CMC with no intended change in regulatory effect. Rationale for new California amendments is shown below.

**203.0** -A-

**Approved.**

**Approved Testing Agency.**

**Assembly Building.**

**Authority Having Jurisdiction.**

**204.0** -B-

***Building. (HCD 1 & HCD 2)***

**Building Code.**

**206.0** -D-

***Department. (HCD 1 & HCD 2)***

**207.0** -E-

**Electrical Code.**

***Enforcing Agency. (HCD 1 & HCD 2)***

**208.0** -F-

***Family. (HCD 1)***



**214.0** -L-  
**Labeled.**  
**Listed (Third Party Certified).**  
**Listing Agency.**

**216.0** -N-  
**Nuisance.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendment with new modification. The new modification provides a correct reference for the definition of “nuisance” in the State Housing Law (Health and Safety Code Section 17920(l)).

**217.0** -O-  
**Occupancy Classification.**

**218.0** -P-  
**Plumbing Code.**  
**(HCD 1 & HCD 2)**

**222.0** -T-  
**Testing Agency. (HCD 1 & HCD 2)**

**223.0** -U-  
**UMC. (HCD 1 & HCD 2)**

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#### **4. CHAPTER 3**

##### **GENERAL REGULATIONS**

HCD proposes to adopt Chapter 3 from the 2018 UMC into the 2019 CMC, with new and existing amendments as follows:

#### **303.0 Installation.**

##### **303.7.1 Liquefied Petroleum Gas (LP-Gas) Appliances. (HCD 1 & HCD 2)**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendment with new modification. An abbreviated term used in the 2018 UMC for liquefied petroleum gas has been added for clarification purposes. The proposed modification provides clarity to the code user. There is no intended change in regulatory effect.

### **303.13 Pit Location**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. Section 303.13 is a new 2018 UMC section, which has been relocated from Section 904.3.1.3 to Chapter 3 General Regulations. The new California amendment provides a specific exception for liquefied petroleum gas (LP-Gas) appliances (which are prohibited from installation in pits, basements, or other similar low locations), and references Section 303.7.1, which is an existing California amendment. The new amendment provides clarity to the code user. There is no intended change in regulatory effect.

### **311.0 Heating or Cooling Air System.**

#### **311.2 Air Filters**

**Rationale:** HCD proposes to adopt the above referenced new California amendment to provide a pointer to the requirements for air filtration in the California Energy Code.

The newly proposed amendment is necessary to ensure consistency between requirements for air filtration in the 2019 CMC and the 2019 California Energy Code for high-rise residential, hotels/motels, and low-rise residential buildings.

The air filtration requirements for ventilation system design and installation, air filter efficiency, and air filter pressure drop have been proposed for the 2019 California Energy Code through a formal rulemaking project (Docket Log 17-BSTD-02 Rulemaking on 2019 Building Energy Efficiency Standards). This rulemaking, approved by the California Energy Commission on May 9, 2018, will be published as Part 6 of the California Code of Regulations, Title 24. The rulemaking package for the 2019 California Energy Code also included supporting documentation related to rationale for adoption of specified air filter requirements and fiscal impacts.

There is no change in regulatory effect from HCD's proposed amendment since this amendment is only a reference to existing (labeling) and new regulations adopted by the California Energy Commission and to be published in the 2019 California Energy Code.

### **312.0 Plumbing Connections.**

#### **312.1 General.**

**Rationale:** HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment provides a correct reference to the California Plumbing Code (CPC).

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

### **316.2 Installation.**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The new amendment provides a correct reference to the California Building Code (CBC) or California Residential Code (CRC). There is no intended change in regulatory effect.

### **316.5 Fire-Resistant Construction.**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The new amendment provides a correct reference to the CBC or CRC. There is no intended change in regulatory effect.

### **316.9 Structural Members**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The new amendment provides a correct reference to the CBC or CRC. There is no intended change in regulatory effect.

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## **5. CHAPTER 4 VENTILATION AIR**

HCD proposes to adopt Chapter 4 from the 2018 UMC into the 2019 CMC with new and existing amendments as follows

### **402.0 Ventilation Air.**

#### **402.3 Mechanical Ventilation.**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The new amendment provides specific reference to the California Building Standards Code, which includes several different codes (parts) addressing ventilation air.

#### **402.5 Bathroom Exhaust Fans.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendment. This amendment has been brought forward from the 2016 CMC with no intended change in regulatory effect.

### **403.0 Ventilation Rates.**

#### **403.7.2.1 Alternative Exhaust Ventilation for Enclosed Parking Garages**

##### **403.7.2.2 Minimum Exhaust Rate.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These amendments have been brought forward from the 2016 CMC with no intended change in regulatory effect.

#### **403.7.2.3 Exhaust Inlet Distribution.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments. These amendments have been brought forward from the 2016 CMC with no intended change in regulatory effect.

#### **403.7.2.4 Exhaust System Operation.**

**Rationale:** HCD proposes to continue adoption of the above referenced California amendments with modification. The new modification provides specific reference to the section including the referenced exceptions. The modification has no intended change in regulatory effect.

#### **Table 403.7 Minimum Exhaust Rates (ASHRAE 62.1: TABLE 6.5)**

**Rationale:** HCD proposes to adopt the above referenced table with modified existing California amendment. References to footnotes and footnote numbering have been modified to accommodate changes in the footnotes in the 2018 UMC. The modifications have no intended change in regulatory effect.

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## **6. CHAPTER 5 EXHAUST SYSTEMS**

HCD proposes to adopt Chapter 5 from the 2018 UMC into the 2019 CMC without amendments.

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## **7. CHAPTER 6 DUCT SYSTEMS**

HCD proposes to adopt Chapter 6, except Section 603.10.1, from the 2018 UMC into the 2019 CMC with existing and new amendments as follows:

### **601.0 General.**

#### **601.2 Sizing Requirements**

**Rationale:** HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment has been brought forward from the 2016 CMC into the 2019 CMC with no modifications.

### **602.0 Material.**

### **602.2.1 Electrical.**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment, which provides a specific reference to the California Electrical Code. The new amendment provides clarity for the code user. There is no intended change in regulatory effect.

## **603.0 Installation of Ducts**

### **603.3.3 Earthquake Loads.**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. This amendment provides specific reference to the CBC and CRC, and provides clarity for the code user. There is no intended change in regulatory effect.

### **603.10.1 Duct Leakage Tests.**

#### **603.10.1.1 Duct Leakage Tests for Residential Buildings.**

**Rationale:** HCD proposes to not adopt Section 603.10.1 from the 2018 UMC, and to adopt Section 603.10.1.1 as new California amendment applicable to residential buildings. The 2019 California Energy Code requires duct leakage tests for low-rise residential, high-rise residential, and hotels/motels in accordance with the residential and nonresidential referenced appendices, respectively. Adopting Section 603.10.1 from the 2018 UMC may allow conflicts between the 2019 CMC and the 2019 California Energy Code, and would cause confusion for code users. The proposed new California amendment provides a correct reference to the California Energy Code for duct leakage tests for residential buildings in California.

## **605.0 Smoke Dampers, Fire Dampers, and Ceiling Dampers.**

### **605.1 Smoke Dampers.**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The new amendment provides specific reference to the CBC and CRC, and provides clarity for the code user. There is no intended change in regulatory effect.

## **606.0 Ventilating Ceilings.**

### **606.1 General.**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The new amendment provides specific reference to the CBC, and provides clarity for the code user. There is no intended change in regulatory effect.

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## **8. CHAPTER 7 COMBUSTION AIR**

HCD proposes to adopt Chapter 7 from the 2018 UMC into the 2019 CMC without amendments.

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## **9. CHAPTER 8**

### **CHIMNEYS AND VENTS**

HCD proposes to adopt Chapter 8 from the 2018 UMC into the 2019 CMC without amendments.

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## **10. CHAPTER 9**

### **INSTALLATION OF SPECIFIC APPLIANCES**

HCD proposes to adopt Chapter 9, except Sections 911.2.2, 912.1, 930.0, and 930.1, from the 2018 UMC into the 2019 CMC with new and existing amendments as follows:

#### **911.0 Decorative Appliances for Installation in Vented Fireplaces.**

##### **911.2.2 In Manufactured Homes**

**Rationale:** HCD proposes nonadoption and nonpublication of the above referenced section from the 2018 UMC. The California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 2, Article 2, Subarticle 1, Section 4050, implementing the Manufactured Housing Act of 1980 (Health and Safety Code Section 18000 *et seq.*), requires all new manufactured homes (manufactured after June 15, 1976) to be subject to the federal Manufactured Home Procedural and Enforcement Regulations and Construction and Safety Standards. In addition, Health and Safety Code Section 18025 requires that all manufactured homes and mobilehomes manufactured after June 15, 1976, comply with the National Manufactured Housing and Safety Standards Act of 1974 (42 U.S.C. Section 5401 *et seq.*). The Act includes references and standards incorporated by reference for construction of manufactured homes, including decorative gas appliances for installation in fireplaces.

#### **912.0 Gas Fireplaces, Vented.**

##### **912.1 Prohibited Installations**

**Rationale:** HCD proposes to continue non-adoption of the above referenced section from the 2018 UMC. This model code section is unnecessary due to the general requirement for all gas fireplaces in newly constructed residential buildings, and additions and alterations, which increase the conditioned area, volume or size, to be direct-vent sealed-combustion type as currently adopted in Section 4.503.1 of the California Green Building Standards Code (CALGreen). This proposed amendment is necessary due to the proposed HCD amendment in Section 912.2, which provides clear prescriptive requirements for the installation of gas fireplaces in California.

## **912.2 Installation**

**Rationale:** HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment (Item 1) has been brought forward from the 2016 CMC into the 2019 CMC with no modifications. Model code items following the California amendment have been renumbered to accommodate insertion of the amendment. HCD originally proposed in the voluntary 2008 California Green Building Standards Code (CALGreen), Section 803 to adopt a requirement for gas fireplaces to be direct-vent, sealed-combustion type. This amendment was carried forward into Section 4.503.1 of the mandatory 2010 CALGreen and a corresponding amendment adopted in the 2016 CMC to clearly identify the requirements for gas fireplaces in California. Should the CALGreen be discontinued and incorporated into other parts of Title 24 in future rulemaking activity, this California amendment will not require additional modification or repeal.

## **916.0 Room Heaters.**

### **916.2.1 Prohibited Installations**

**Rationale:** HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment has been brought forward from the 2016 CMC into the 2019 CMC with no intended change in regulatory effect.

#### **916.2.1.1 Unvented Room Heaters.**

**Rationale:** HCD proposes to adopt the above referenced section with existing California amendment. The existing amendment has been brought forward from the 2016 CMC into the 2019 CMC with no intended change in regulatory effect.

## **930.0 Appliances for Installation in Manufactured Housing.**

**Rational:** HCD proposes nonadoption and nonpublication of the above referenced sections from the 2018 UMC.

### **930.1 General**

**Rationale:** HCD proposes nonadoption and nonpublication of the above referenced sections from the 2018 UMC. The California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 2, Article 2, Subarticle 1, Section 4050, implementing the Manufactured Housing Act of 1980 (Health and Safety Code Section 18000 *et seq.*) requires all new manufactured homes (manufactured after June 15, 1976) to be subject to the federal Manufactured Home Procedural and Enforcement Regulations and Construction and Safety Standards. In addition, Health and Safety Code Section 18025 requires that all manufactured homes and mobilehomes manufactured after June 15, 1976, to comply with the National Manufactured Housing and Safety Standards Act of 1974 (42 U.S.C. Section 5401 *et seq.*). The Act includes references and standards incorporated by reference for construction of manufactured homes, including appliances.

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## **11. CHAPTER 10**

## **BOILERS AND PRESSURE VESSELS**

HCD proposes to adopt Chapter 10 from the 2018 UMC into the 2019 CMC with new amendment as follows:

### **1001.0 General.**

#### **1001.2 Boiler Rooms and Enclosures**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The new amendment provides a correct reference to the CBC. There is no intended change in regulatory effect.

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## **12. CHAPTER 11 REFRIGERATION**

HCD proposes to adopt Chapter 11 from the 2018 UMC into the 2019 CMC without amendments

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## **13. CHAPTER 12 HYDRONICS**

HCD proposes to adopt Chapter 12 from the 2018 UMC into the 2019 CMC with new amendments as follows:

### **1205.0 Installation, Testing, and Inspection.**

#### **1205.2 Pressure Testing**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The new amendment provides a note to the code user that cross-linked polyethylene-aluminum-cross-linked polyethylene (PEX-AL-PEX) is not allowed for use in potable water supply systems pursuant to the CPC (*Table 604.1; Sections 604.13, 605.10, 605.10.1, 605.10.1.1*).

The use of PEX (cross-linked polyethylene) was approved for use in residential water supply systems in the 2007 California Plumbing Code through a formal rulemaking process, which also included significant documentation, including compliance with the California Environmental Quality Act. PEX-AL-PEX material was not considered for use or addressed by environmental documents and is still unapproved for water supply use in California.

The proposed amendment provides clarity to the code users. There is no intended change in regulatory effect on the use of PEX-AL-PEX.



## **1211.0 Joints and Connections.**

### **1211.6 Cross-Linked Polyethylene/Aluminum/Cross-Linked Polyethylene (PEX-AL-PEX) Pipe**

**Rationale:** HCD proposes to adopt the above referenced section with a new California amendment. The new amendment provides a note to the code user that cross-linked polyethylene-aluminum-cross-linked polyethylene (PEX-AL-PEX) is not allowed for use in potable water supply systems, pursuant to the CPC (*Table 604.1; Sections 604.13, 605.10, 605.10.1, 605.10.1.1*).

The use of PEX (cross-linked polyethylene) was approved for use in residential water supply systems in the 2007 California Plumbing Code through a formal rulemaking process, which also included significant documentation, including compliance with the California Environmental Quality Act. PEX-AL-PEX material was not considered for use or addressed by environmental documents and is still unapproved for water supply use in California.

The proposed amendment provides clarity to the code users. There is no intended change in regulatory effect on the use of PEX-AL-PEX.

## **1217.0 Radiant Heating and Cooling.**

### **1217.5.2 Insulation**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The 2019 California Energy Code includes requirements for insulation in ground contact and installation requirements for heated slab floors. Use of Section 1217.5.2 without reference to the Energy Code may allow conflicts between the codes and cause confusion for code users. The proposed amendment provides a correct reference to the California Energy Code for insulation requirements for residential heated slab floors.

### **1217.5.4 Wall and Ceiling Panels**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. According to the California Energy Commission, the 2019 California Energy Code includes requirements for insulation based on diameter of pipes installed in exterior or interior walls. Use of Section 1217.5.4 without reference to the Energy Code may allow conflicts between the codes and cause confusion for code users. The proposed amendment provides a correct reference to the California Energy Code for pipe insulation for residential occupancies.

## **1220.0 Auxiliary Systems.**

### **1220.2.5 Insulation**

**Rationale:** HCD proposes to adopt the above referenced section with new California amendment. The 2019 California Energy Code includes requirements for insulation in ground contact and installation requirements for heated slab floors. Use of Section 1220.2.5 without reference to the Energy Code may allow conflicts between the codes and cause confusion for code users. The proposed amendment provides a correct reference to the California Energy Code for insulation requirements for residential heated slabs.

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## **14. CHAPTER 13 FUEL GAS PIPING**

HCD proposes to adopt Chapter 13 from the 2018 UMC into the 2019 CMC without amendment.

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## **15. CHAPTER 14 PROCESS PIPING**

HCD proposes to continue to NOT adopt Chapter 14 from the 2018 UMC.

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## **16. CHAPTER 15 SOLAR ENERGY SYSTEMS**

HCD proposes to adopt Chapter 15 from the 2018 UMC into the 2019 CMC with new and existing amendments as follows:

### **1502.0 General. (HCD 1 & HCD 2)**

**Rationale:** HCD proposes to adopt the above referenced California amendment with new editorial modifications. The existing amendment has been brought forward from the 2016 CMC into the 2019 CMC with no intended change in regulatory effect.

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## **17. CHAPTER 16 STATIONARY POWER PLANTS**

HCD proposes to adopt Chapter 16 from the 2018 UMC into the 2019 CMC without amendments.

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## **18.CHAPTER 17 REFERENCED STANDARDS**

HCD proposes to adopt Chapter 17 from the 2018 UMC into the 2019 CMC without amendments.

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

HCD proposes to continue to NOT adopt Appendix A from the 2018 UMC.

**Rationale:** HCD proposes to adopt a new appendix note, which clarifies that the provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance. HCD has received comments and questions from stakeholders related to similar phrases at the beginning of appendices in other parts of Title 24 and whether an appendix was mandatory or subject to local adoption. Since the Matrix Adoption Table for the appendix is nonregulatory and the text refers to an adopting ordinance, it was not clear to readers which appendices were mandatory without reading Section 1.1.4. The 2016 CMC does not include a phrase related to mandatory or voluntary status of the appendix; however, the proposed phrase provides clarification for the code user. There is no intended change in regulatory effect.

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

HCD proposes to continue to NOT adopt Appendix B from the 2018 UMC.

**Rationale:** HCD proposes to adopt a new appendix note, which clarifies that the provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance. HCD has received comments and questions from stakeholders related to similar phrases at the beginning of appendices in other parts of Title 24 and whether an appendix was mandatory or subject to local adoption. Since the Matrix Adoption Table for the appendix is nonregulatory and the text refers to an adopting ordinance, it was not clear to readers which appendices were mandatory without reading Section 1.1.4. The 2016 CMC does not include a phrase related to mandatory or voluntary status of the appendix; however, the proposed phrase provides clarification for the code user. There is no intended change in regulatory effect.

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

HCD proposes to continue to NOT adopt Appendix C from the 2018 UMC.

**Rationale:** HCD proposes to adopt a new appendix note, which clarifies that the provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance. HCD has received comments and questions from stakeholders related to similar phrases at the beginning of appendices in other parts of Title 24 and whether an appendix was mandatory or subject to local adoption. Since the Matrix Adoption Table for the appendix is nonregulatory and the text refers to an adopting ordinance, it was not clear to readers which appendices were mandatory without reading Section 1.1.4. The 2016 CMC does not include a phrase related to mandatory or voluntary status of the appendix; however, the proposed phrase provides clarification for the code user. There is no intended change in regulatory effect.

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

HCD proposes to continue to NOT adopt Appendix D from the 2018 UMC.

**Rationale:** HCD proposes to adopt a new appendix note, which clarifies that the provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance. HCD has received comments and questions from stakeholders related to similar phrases at the beginning of appendices in other parts of Title 24 and whether an appendix was mandatory or subject to local adoption. Since the Matrix Adoption Table for the appendix is nonregulatory and the text refers to an adopting ordinance, it was not clear to readers which appendices were mandatory without reading Section 1.1.4. The 2016 CMC does not include a phrase related to mandatory or voluntary status of the appendix; however, the proposed phrase provides clarification for the code user. There is no intended change in regulatory effect.

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## 23. APPENDIX E SUSTAINABLE PRACTICES

HCD proposes to continue to NOT adopt Appendix E from the 2018 UMC.

**Rationale:** HCD proposes to adopt a new appendix note, which clarifies that the provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance. HCD has received comments and questions from stakeholders related to similar phrases at the beginning of appendices in other parts of Title 24 and whether an appendix was mandatory or subject to local adoption. Since the Matrix Adoption Table for the appendix is nonregulatory and the text refers to an adopting ordinance, it was not clear to readers which appendices were mandatory without reading Section 1.1.4. The 2016 CMC does not include a phrase related to mandatory or voluntary status of the appendix; however, the proposed phrase provides clarification for the code user. There is no intended change in regulatory effect.

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

HCD proposes to continue to NOT adopt Appendix F from the 2018 UMC.

**Rationale:** HCD proposes to adopt a new appendix note, which clarifies that the provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance. HCD has received comments and questions from stakeholders related to similar phrases at the beginning of appendices in other parts of Title 24 and whether an appendix was mandatory or subject to local adoption. Since the Matrix Adoption Table for the appendix is nonregulatory and the text refers to an adopting ordinance, it was not clear to readers which appendices were mandatory without reading Section 1.1.4. The 2016 CMC does not include a phrase related to mandatory or voluntary status of the appendix; however, the proposed phrase provides clarification for the code user. There is no intended change in regulatory effect.

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## 25. APPENDIX G EXAMPLE CALCULATION OF OUTDOOR AIR RATE

HCD proposes to continue to NOT adopt Appendix G from the 2018 UMC.

**Rationale:** HCD proposes to adopt a new appendix note, which clarifies that the provisions contained in this appendix are not mandatory unless specifically adopted by a state agency, or referenced in the adopting ordinance. HCD has received comments and questions from stakeholders related to similar phrases at the beginning of appendices in other parts of Title 24 and whether an appendix was mandatory or subject to local adoption. Since the Matrix Adoption Table for the appendix is

nonregulatory and the text refers to an adopting ordinance, it was not clear to readers which appendices were mandatory without reading Section 1.1.4. The 2016 CMC does not include a phrase related to mandatory or voluntary status of the appendix; however, the proposed phrase provides clarification for the code user. There is no intended change in regulatory effect.

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**TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS:**

Government Code Section 11346.2(b)(3) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).

None.

**STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS:**

Government Code Section 11346.2(b)(1) requires a statement of the reasons why an agency believes any mandates for specific technologies or equipment or prescriptive standards are required.

HCD is statutorily required to adopt by reference model building codes, which contain prescriptive standards. Prescriptive standards provide the following: explicit guidance for certain mandated requirements; consistent application and enforcement of building standards while also establishing clear design parameters; and ensure compliance with minimum health, safety and welfare standards for owners, occupants and guests.

Performance standards are permitted by state law; however, they must be demonstrated to the satisfaction of the proper enforcing agency.

**CONSIDERATION OF REASONABLE ALTERNATIVES**

Government Code Section 11346.2(b)(4)(A) requires a description of reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific action or procedures, the imposition of performance standards shall be considered as an alternate. It is not the intent of this paragraph to require the agency to artificially construct alternatives or describe unreasonable alternatives.

None. There were no alternatives available to HCD. HCD is required by statute to adopt the model code by reference. The proposed amendments are the only reasonable alternative for clarifying the 2019 CMC.

**REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS.**

Government Code Section 11346.2(b)(4)(B) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business.

HCD has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states.

## **FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS.**

Government Code Section 11346.2(b)(5)(A) requires the facts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.

HCD has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states because the published version no longer includes a provision limiting the length of flexible ducts in residential construction. This provision, if adopted in the final version, would have had significant adverse impact on businesses due to increased costs for ductwork and limited use of flexible duct materials.

## **ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION.**

Government Code Sections 11346.3(b)(1) and 11346.5(a)(10).

HCD has assessed whether or not and to what extent this proposal will affect the following:

- The creation or elimination of jobs within the State of California.

**These regulations will not affect the creation, or cause the elimination, of jobs within the State of California.**

- The creation of new businesses or the elimination of existing businesses within the State of California.

**These regulations will not affect the creation or the elimination of existing business within the State of California.**

- The expansion of businesses currently doing business with the State of California.

**These regulations will not affect the expansion of businesses currently doing business within the State of California.**

- The benefits of the regulations to the health and welfare of California residents, worker safety, and the state's environment.

**These regulations will update and improve minimum existing building standards, which will provide increased protection of public health and safety, worker safety and the environment.**



## **ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS**

Government Code Section 11346.2(b)(6)(B)(i) states if a proposed regulation is a building standard, the initial statement of reasons shall include the estimated cost of compliance, the estimated potential benefits, and the related assumptions used to determine the estimates.

- Pursuant to Government Code Section 11346.2(b)(5)(B)(ii) adoption of the model codes is exempt from identification of the estimated cost of compliance, the estimated potential benefits, and the related assumptions used to determine the estimates in the Initial Statement of Reasons.
- No increased cost of compliance for those regulations that make only technical and nonsubstantive changes.
- The potential benefits provide recognition and appropriate use of new technologies and materials, clarity for the code users and local enforcement agencies, and may increase business due to the adoption of new building standards.
- Protection of public health and safety, worker safety and the environment.

## **DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS**

Government Code Section 11346.2(b)(6) requires a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal to describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from these federal regulations upon a finding of one or more of the following justifications: (A) The differing state regulations are authorized by law and/or (B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment.

These regulations do not duplicate nor conflict with federal regulations. The State of California has preemptive authority to adopt more restrictive mandatory standards for the appliances addressed in these regulations.