

**INITIAL STATEMENT OF REASONS
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 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:

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 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.

Specific Purpose

The California Building Standards Commission (CBSC) selected the 2021 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 2021 Triennial Code Adoption Cycle.

The specific purpose of these regulations is to adopt by reference the 2021 edition of the UMC, with California Amendments, into the 2022 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 (HSC) section 17921.2.
- b) **Employee Housing Program:** relative to any building or structure or outdoors on premises or property in accordance with HSC 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 HSC section 18300 for mobilehome parks, and HSC 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 HSC section 19990.

The Public Problem, Administrative Requirement, or Other Circumstance Addressed

Administrative Requirement: HSC 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.

Rationale for Necessity

The 2021 UMC was published by IAPMO and will automatically become adopted in its entirety, pursuant to HSC section 17922(b), one year from its date of publication if not amended and proposed by HCD to the CBSC for adoption.

If the 2021 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 2022 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 2021 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 2021 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 2019 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 2019 CMC. Other existing California amendments will be changed as explained below.

SPECIFIC PROPOSED REGULATORY ACTIONS

HCD proposes to adopt by reference the 2021 edition of the UMC with amendments into the 2022 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 CBSC, to be included in the 2021 Triennial Code Adoption Cycle. The rationale for each amendment by chapter and section is listed below.

Item 1

Chapter 1, ADMINISTRATION, CALIFORNIA ADMINISTRATION

Rationale: HCD proposes to bring forward existing California amendments in Chapter 1, Division I, California Administration, from the 2019 CMC for adoption into the 2022 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 2018 UMC to the 2021 UMC. This change is in compliance with Nine-Point Criteria (7) to incorporate by reference by applicable model code.

1.1.2 Purpose.

1.1.3 Scope.

1.1.3.1 Non-State Regulated Buildings, Structures, and Applications.

1.1.3.2 State-Regulated Buildings, Structures, and Applications.

1.1.4 Appendices.

1.1.5 Referenced Codes.

1.1.6 Non-Building 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 2019 CMC into the 2022 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 provide clarity and consistency with all 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 amendments. These existing amendments are brought forward from the 2019 CMC into the 2022 CMC without modification.

1.1.8.1 Findings and Filings.

Rationale: HCD proposes to continue adoption of the above referenced section with nonsubstantive editorial modification to HCD's address. The proposed modification provides clarity and consistency with all 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 California amendments. These existing amendments are brought forward from the 2019 CMC into the 2022 CMC without modification.

1.1.9 Effective Date of this Code.

Rationale: HCD proposes to continue adoption of the above reference California amendment with modification. The proposal modifies reference to the CCR, title 25, section 3048 which is scheduled to be renumbered as section 3037 in a pending rulemaking. This would correct an incorrect reference in the published code and maintain consistency between codes.

HCD modified section 1.1.9 of the 2019 CMC to add an exception for retroactive permits reflecting provisions of Senate Bill 1226 (Chapter 1010, Statutes of 2018).

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 2019 CMC into the 2022 CMC without modification.

1.8.0 Department of Housing and Community Development (HCD).

1.8.1 Purpose.

Rationale: HCD proposes to continue adoption of the above referenced section with modification. The proposed modification provides clarity and consistency with all parts of title 24 by using HCD's complete business address. There is no intended change in regulatory effect.

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 2019 CMC into the 2022 CMC without modification.

1.8.2.1.1 Housing Construction.

1.8.2.1.2 Housing Accessibility.

1.8.2.1.3 Permanent Buildings in Mobilehome Parks and Special Occupancy Parks.

Rationale: HCD proposes to continue adoption of the above referenced sections with new modifications. The proposed modifications provide clarity and consistency with all parts of Title 24 and update authority and references used for HCD 1, HCD 2, and HCD 1-AC. There is no intended change in regulatory effect. This change is in compliance with Nine-Point Criteria (2) to identify statutory authority for HCD to adopt regulations.

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 2019 CMC into the 2022 CMC without modification.

1.8.4 Permits, Fees, Applications and Inspections.

1.8.4.1 Permits.

Rationale: HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2019 CMC into the 2022 CMC without modification.

HCD modified section 1.8.4.1 in the 2019 Intervening Code Adoption Cycle to clarify that retroactive permits may be obtained although the building has already been constructed.

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.

1.8.5 Right of Entry for Enforcement.

1.8.5.1 General.

Rationale: HCD proposes to continue adoption of the above referenced California amendments. These existing amendments are brought forward from the 2019 CMC into the 2022 CMC without modification.

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.

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

1.8.7.1 General.

1.8.7.2 Local Building Departments.

1.8.7.2.1 Approval of Alternates.

1.8.7.3 Department of Housing and Community Development.

1.8.8 Appeals Board.

1.8.8.1 General.

1.8.8.2 Definitions.

1.8.8.3 Appeals.

1.8.9 Unsafe Buildings or Structures.

1.8.9.1 Authority to Enforce.

1.8.9.2 Actions and Proceedings.

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 2019 CMC into the 2022 CMC without modification.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 2

CHAPTER 1, DIVISION II, ADMINISTRATION

Rationale: HCD proposes to adopt Chapter 1, Division II, Section 104.2 (Items 1-5) only, from the 2021 UMC into the 2022 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 2021 UMC into the 2022 CMC without amendments.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 3

CHAPTER 2, DEFINITIONS

Rationale: HCD proposes to adopt Chapter 2, Definitions, from the 2021 UMC into the 2022 CMC with existing California amendments. The existing amendments are being brought forward from the 2019 CMC into the 2022 CMC without modification and with no intended change in regulatory effect.

203.0 -A-

Accessory Dwelling Unit. [HCD 1 & HCD 2]

Approved. Exception

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.

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]

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 4
CHAPTER 3, GENERAL REGULATIONS

Rationale: HCD proposes to adopt Chapter 3, General Regulations, from the 2021 UMC into the 2022 CMC, with existing California amendments. The existing amendments are being brought forward, with the exception of section 311.2, from the 2019 CMC into the

2022 CMC without modification and with no intended change in regulatory effect. HCD proposes to repeal an amendment to a section that will be amended by the California Energy Commission.

303.7.1 Liquefied Petroleum Gas (LP-Gas) Appliances.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. An abbreviated term used in the 2018 UMC for liquefied petroleum gas was added for clarification purposes.

305.2 (formerly 303.13) Pit Location. Exception

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. section 303.13 was a new 2018 UMC section, which was relocated from section 904.3.1.3 to Chapter 3, General Regulations. The 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.

311.2 Air Filters.

Rationale: HCD proposes to repeal the California amendment to the above referenced section. The California Energy Commission will be amending any sections requiring modification to align with the California Energy Code (CCR, title 24, part 6). Therefore, HCD's amendment is no longer needed.

316.2 Installation.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The 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 bring forward the above referenced California amendment without modification. The 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 bring forward the above referenced California amendment without modification. The amendment provides a correct reference to the CBC or CRC. There is no intended change in regulatory effect.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 5 CHAPTER 4, VENTILATION AIR

Rationale: HCD proposes to adopt Chapter 4, Ventilation Air, from the 2021 UMC into the

2022 CMC with new and existing California amendments. The existing amendments are being brought forward from the 2019 CMC into the 2022 CMC without modification and with no intended change in regulatory effect. HCD proposes a new reference to the California Green Building Standards (CALGreen) Code.

402.5 Bathroom Exhaust Fans.

Rationale: HCD proposes to bring forward the above referenced California amendment a relocated into new model code section 405.3 without modification. This amendment has been brought forward from the 2019 CMC into the 2022 CMC with no intended change in regulatory effect.

403.7.2.1 Alternative Exhaust Ventilation for Enclosed Parking Garages.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. This amendment has been brought forward from the 2019 CMC into the 2022 CMC with no intended change in regulatory effect.

403.7.2.2 Minimum Exhaust Rate.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. This amendment has been brought forward from the 2019 CMC into the 2022 CMC with no intended change in regulatory effect.

403.7.2.3 Exhaust Inlet Distribution.

Exception

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. This amendment has been brought forward from the 2019 CMC into the 2022 CMC with no intended change in regulatory effect.

403.7.2.4 Exhaust System Operation.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification.

405.3 Bathroom Exhaust.

Rationale: HCD proposes to relocate an existing California amendment from section 402.5 of the 2019 CMC into this new model code section. Therefore, HCD proposes to adopt a reference pointing to CALGreen, Division 4.5, Environmental Quality, in efforts to align with the requirements or CALGreen. There is no intended change in regulatory effect.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 6

CHAPTER 5, EXHAUST SYSTEMS

Rationale: HCD proposes to adopt Chapter 5 from the 2021 UMC into the 2022 CMC

without amendment.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 7

CHAPTER 6, DUCT SYSTEMS

Rationale: HCD proposes to adopt Chapter 6, Duct Systems, except section 603.9.2, from the 2021 UMC into the 2022 CMC with existing California amendments. The existing amendments are being brought forward, with the exceptions of sections 601.2 and 604.10.1.1, from the 2019 CMC into the 2022 CMC without modification and with no intended change in regulatory effect. HCD proposes to repeal amendments to sections that will be amended by the California Energy Commission. HCD proposes to continue the non-adoption of particular sections of the UMC.

601.2 Sizing Requirements.

Rationale: HCD proposes to repeal the California amendment to the above referenced section. The California Energy Commission will be amending any sections requiring modification to align with CCR, title 24, part 6. Therefore, HCD's amendment is no longer needed.

602.2.1 Electrical.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification, which provides a specific reference to the California Electrical Code.

603.3.1 (formerly 603.3.3) Earthquake Loads.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. This amendment provides specific reference to the CBC and CRC.

603.9.2 (formerly 603.10.1) Duct Leakage Tests.

Rationale: HCD proposes to continue the non-adoption of section 603.9.2 from the UMC. Adopting section 603.9.2 from the 2021 UMC may allow conflicts between the 2022 CMC and the 2022 CCR, title 24, part 6, and would cause confusion for code users.

603.10.1.1 Duct Leakage Tests for Residential Buildings.

Rationale: HCD proposes to repeal the above referenced section. The California Energy Commission will be amending any sections requiring modification to align with CCR, title 24, part 6. Therefore, HCD's amendment is no longer needed.

606.1 (formerly 605.1) Smoke Dampers.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The amendment provides specific reference to the CBC and CRC.

607.1 (formerly 606.1) General.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The amendment provides specific reference to the CBC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

**ITEM 8
CHAPTER 7, COMBUSTION AIR**

Rationale: HCD proposes to adopt Chapter 7 from the 2021 UMC into the 2022 CMC without amendment.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

**ITEM 9
CHAPTER 8, CHIMNEYS AND VENTS**

Rationale: HCD proposes to adopt Chapter 8 from the 2021 UMC into the 2022 CMC without amendment.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

**ITEM 10
CHAPTER 9, INSTALLATION OF SPECIFIC APPLIANCES**

Rationale: HCD proposes to adopt Chapter 9, except sections 911.2.2, 912.1, 930.0, and 930.1, from the 2021 UMC into the 2022 CMC and bring forward existing California amendments. The existing amendments are being brought forward from the 2019 CMC into the 2022 CMC without modification and with no intended change in regulatory effect.

911.2.2 In Manufactured Homes.

Rationale: HCD proposes to continue non-adoption and non-publication of the above referenced section from the 2021 UMC. CCR, title 25, division 1, chapter 3, subchapter 2, article 2, subarticle 1, section 4050, implementing the Manufactured Housing Act of 1980 (HSC 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, HSC

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.

912.1 Prohibited Installations.

Rationale: HCD proposes to continue non-adoption of the above referenced section from the 2021 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 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 bring forward the above referenced California amendment without modification. HCD originally proposed in the voluntary 2008 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 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.

916.2.1 Prohibited Installations.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The existing amendment has been brought forward from the 2019 CMC into the 2022 CMC with no intended change in regulatory effect.

916.2.1.1 Unvented Room Heaters.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The existing amendment has been brought forward from the 2019 CMC into the 2022 CMC with no intended change in regulatory effect.

930.0 Appliances for Installation in Manufactured Housing.

Rationale: HCD proposes to continue the non-adoption and non-publication of section 930.0 from the UMC.

930.1 General.

Rationale: HCD proposes to continue the non-adoption of section 930.1 from the UMC. CCR, title 25, division 1, chapter 3, subchapter 2, article 2, subarticle 1, section 4050, implementing the Manufactured Housing Act of 1980 (HSC 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, HSC 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.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 11

CHAPTER 10, BOILERS AND PRESSURE VESSELS

Rationale: HCD proposes to adopt Chapter 10, Boilers and Pressure Vessels, from the 2021 UMC into the 2022 CMC and bring forward existing California amendments. The existing amendments are being brought forward from the 2019 CMC into the 2022 CMC without modification and with no intended change in regulatory effect.

1001.2 Boiler Rooms and Enclosures.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The amendment provides a correct reference to the CBC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 12

CHAPTER 11, REFRIGERATION

Rationale: HCD proposes to adopt Chapter 11 from the 2021 UMC into the 2022 CMC without amendment.

CAC Recommendation:

Approved as submitted for all sections except section 1104.6 (further study).

Agency Response:

Accept except for changes proposed for section 1104.6 which are withdrawn.

ITEM 13

CHAPTER 12, HYDRONICS

Rationale: HCD proposes to adopt Chapter 12, Hydronics, from the 2021 UMC into the 2022 CMC with existing and repealed California amendments. The existing amendments are being brought forward, with the exception of sections 1217.5.2, 1217.7 (formerly 1217.5.4) and 1220.4.5 (formerly 1220.2.5), from the 2019 CMC into the 2022 CMC without modification and with no intended change in regulatory effect. HCD proposes to repeal amendments to sections that will be amended by the California Energy Commission.

1205.2 Pressure Testing.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The 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 California Plumbing Code (CPC) (table 604.1; sections 604.13, 605.10, 605.10.1, and 605.10.1.1).

The use of cross-linked polyethylene (PEX) was approved for use in residential water supply systems in the 2007 CPC 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.

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

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The amendment provides a note to the code user that PEX-AL-PEX is not allowed for use in potable water supply systems, pursuant to the CPC (table 604.1; sections 604.13 and 605.10).

The use of PEX was approved for use in residential water supply systems in the 2007 CPC 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.

1217.5.2 Insulation.

Rationale: HCD proposes to repeal the amendment to the above referenced section. The California Energy Commission will be amending any sections requiring modification to align with CCR, title 24, part 6. Therefore, HCD's amendment is no longer needed.

1217.7 (formerly 1217.5.4) Wall and Ceiling Panels.

Rationale: HCD proposes to repeal the amendment to the above referenced section. The California Energy Commission will be amending any sections requiring modification to align with CCR, title 24, part 6. Therefore, HCD's amendment is no longer needed.

1220.4.5 (formerly 1220.2.5) Insulation.

Rationale: HCD proposes to repeal the amendment to the above referenced section. The California Energy Commission will be amending any sections requiring modification to align with CCR, title 24, part 6. Therefore, HCD's amendment is no longer needed.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 14
CHAPTER 13, FUEL GAS PIPING

Rationale: HCD proposes to adopt Chapter 13 from the 2021 UMC into the 2022 CMC without amendment.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 15
CHAPTER 14, PROCESS PIPING

Rationale: HCD proposes to NOT adopt Chapter 14 from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 16
CHAPTER 15, SOLAR ENERGY SYSTEMS

Rationale: HCD proposes to adopt Chapter 15, Solar Energy Systems, from the 2021 UMC into the 2022 CMC and bring forward existing California amendments. The existing amendments are being brought forward from the 2019 CMC into the 2022 CMC without modification and with no intended change in regulatory effect.

1502.0 General.

Rationale: HCD proposes to bring forward the above referenced California amendment without modification. The existing amendment has been brought forward from the 2019 CMC into the 2022 CMC with no intended change in regulatory effect.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 17
CHAPTER 16, STATIONARY POWER PLANTS

Rationale: HCD proposes to adopt Chapter 17 from the 2021 UMC into the 2022 CMC without amendment.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

**ITEM 18
CHAPTER 17, REFERENCED STANDARDS**

Rationale: HCD proposes to adopt Chapter 17 from the 2021 UMC into the 2022 CMC without amendment.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

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

Rationale: HCD proposes to NOT adopt Appendix A from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

**ITEM 20
APPENDIX B, PROCEDURES TO BE FOLLOWED TO PLACE GAS EQUIPMENT IN OPERATION**

Rationale: HCD proposes to NOT adopt Appendix B from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

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

Rationale: HCD proposes to NOT adopt Appendix C from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 22

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

Rationale: HCD proposes to NOT adopt Appendix D from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 23

APPENDIX E, SUSTAINABLE PRACTICES

Rationale: HCD proposes to NOT adopt Appendix E from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 24

APPENDIX F, GEOTHERMAL ENERGY SYSTEMS

Rationale: HCD proposes to NOT adopt Appendix F from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 25

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

Rationale: HCD proposes to continue to NOT adopt Appendix G (formerly Appendix F) from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

ITEM 26

APPENDIX H, EXAMPLE CALCULATION OF OUTDOOR AIR RATE

Rationale: HCD proposes to NOT adopt Appendix H from the 2021 UMC.

CAC Recommendation:

Approved as submitted

Agency Response:

Accept

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).

- 2021 UMC.
- SB 1226, operative January 1, 2019, which added HSC section 17958.12 to the State Housing Law.
- Senate Bill 13 (Chapter 653, Statutes of 2019), operative until January 1, 2035, added HSC section 17980.12 to the State Housing Law.

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.

HSC section 17922 requires HCD to adopt by reference model building codes, e.g., UMC, which contains 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 2022 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 is required by statute to adopt this model code by reference, however, HCD also has authority to propose additions and deletions to the model per HSC section 17922. Proposed code amendments in the 2022 CMC are nonsubstantive and will not impact small businesses.

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.

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)

The Department of Housing and Community Development has assessed whether or not and to what extent this proposal will affect the following:

- A.** 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.
- B.** 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.
- C.** The expansion of businesses currently doing business within the State of California.
These regulations will not affect the expansion of businesses currently doing business within the State of California.
- D.** The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.
The adoption of the 2021 UMC by reference with California amendments will provide stakeholders with safe mechanical systems while allowing for innovation, new technologies, and accommodation of specialized requirements for the State of California. These regulations will also 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)(5)(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.

- No increased cost of compliance for those regulations that make only technical and nonsubstantive changes.
- Government Code section 11346.2(b)(5)(B)(ii) provides that the model codes adopted pursuant to section 18928 of the HSC shall be exempt from the requirements of section 11346.2(b)(5)(B) unless upon request as specified.
- The purpose of this rulemaking is to adopt the 2021 UMC which is a model code setting forth requirements for mechanical systems in structures.
- 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.
- As noted in section D (“benefits of the regulation”) 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.

The regulations do not duplicate nor conflict with federal regulations. The State of California has preemptive authority to adopt more restrictive mandatory standards for the construction methods and materials addressed in these regulations. The provisions for the commercial pre-rinse valves provide consistency with federal requirements and include additional California requirements.