

**FINAL EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DIVISION OF THE STATE ARCHITECT - STRUCTURAL SAFETY (DSA-SS AND DSA-SS/CC)

REGARDING PROPOSED CHANGES TO
CALIFORNIA MECHANICAL CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4**

The California Building Standards Code (California Code of Regulations, Title 24, Part 1, 2, 2.5, 3, 4, 5, 6, 8, 9, 10, 11, and 12) is published in its entirety every three years and is applicable to all buildings for which an application for a building permit is made during the Code's effective period. Each triennial edition of the California Building Standards Code becomes effective 180 days after its publication.

These proposed regulations will make effective the 2015 edition of the Uniform Mechanical Code (UMC) as the 2016 edition California Mechanical Code (CMC), for application by DSA-SS (Division of the State Architect – Structural Safety) to public elementary and secondary schools, community colleges, and state-owned or state-leased essential services buildings.

These proposed regulations will also make effective the 2015 edition of the UMC as the 2016 edition CMC, for application by DSA-SS/CC (Division of the State Architect – Structural Safety/Community Colleges) to community colleges, which a community college district may elect to use in lieu of standards promulgated by DSA-SS (refer to Education Code Section 81053).

Further, these proposed regulations will repeal the 2012 edition UMC articles adopted as the 2013 edition CMC.

LEGEND FOR EXPRESS TERMS

1. Existing California amendments or code language being modified are in italics when they appear in the model code text: All such language appears in *italics*, modified language is underlined.
2. New California amendments: All such language appears underlined and in italics.
3. Repealed text: All such language appears in ~~strikeout~~.
4. Instructions: Texts which are instructions only that are not amendments and will not be printed appears in **blue highlight**.

EXPRESS TERMS

**CALIFORNIA MECHANICAL CODE
CHAPTER 1 – ADMINISTRATION**

Continue Chapter 1, Division I (California Administration) of the 2013 triennial edition of the CMC for publication in the 2016 triennial edition of the CMC, with DSA editorial amendments as shown below:

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt only those sections that are listed below	X	X	
Division I – California Administration			
1.1.0 General	X	X	
1.1.1 Title	X	X	
1.1.2 Purpose	X	X	

1.1.3 Scope	X	X	
1.1.3.1 Nonstate-Regulated Buildings, Structures, and Application	X	X	
1.1.3.2 State-Regulated Buildings, Structures, and Applications	X	X	DSA-SS adopts Item (11) of Article 1.1.3.2
1.1.4 Appendices	X	X	
1.1.5 Referenced Codes	X	X	
1.1.6 Non-Building Standards, Orders and Regulations	X	X	
1.1.7 Order of Precedence and Use	X	X	
1.1.7.1 Differences	X	X	
1.1.7.2 Specific Provisions	X	X	
1.1.7.3 Conflicts	X	X	
1.1.8 City, County, or City and County Amendments, Additions or Deletions	X	X	
1.1.9 Effective Date of This Code	X	X	
1.1.10 Availability of Codes	X	X	
1.1.11 Format	X	X	
1.1.12 Validity	X	X	
1.9.0 Division of the State Architect			
1.9.1 (Reserved for the DSA-AC)			
1.9.2 Division of the State Architect – Structural Safety	X	X	
1.9.2.1 Adopting Agency Identification	X		
1.9.2.2 DSA-SS	X		
1.9.2.3 Adopting Agency Identification		X	
1.9.2.4 DSA-SS/CC		X	

**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 twelve parts of the official compilation and publication of the adoptions, amendment, and repeal of building regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 2012 2015 Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials with necessary California amendments.*

1.1.2 Purpose. *The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation, and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.*

1.1.3 Scope. *The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout*

the State of California.

1.1.3.1 Nonstate-Regulated Buildings, Structures, and Applications. *Except as modified by local ordinance pursuant to Section 1.1.8, the following standards in the California Code of Regulations, Title 24, Parts 2, 2.5, 3, 4, 5, 6, 9, 10 and 11 shall apply to all occupancies and applications not regulated by a state agency.*

1.1.3.2 State-Regulated Buildings, Structures, and Applications. *The model code, state amendments to the model code, and/or state amendments where there are no relevant model code provisions shall apply to the following buildings, structures, and applications regulated by state agencies as referenced in the Matrix Adoption Tables and as specified in Section 1.2.0 through 1.14.0, except where modified by local ordinance pursuant to Section 1.1.8. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the state legislature.*

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

- 1) ...
- 2) ...
- 3) ...
- 4) ...
- 5) ...
- 6) ...
- 7) ...
- 8) ...
- 9) ...
- 10) ...
- 11) *Public elementary and secondary schools, community college buildings and state-owned or state-leased essential service buildings regulated by the Division of the State Architect. See Section 1.9.2 for additional scope provisions.*
- 12) ...
- 13) ...
- 14) ...
- 15) ...
- 16) ...
- 17) ...
- 18) ...

1.1.4 Appendices. *Provisions contained in the appendices of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code Section 18901 et. seq. for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law and Health and Safety Code Section 13869.7 for Fire Protection Districts. See Section 1.1.8 of this code.*

1.1.5 Referenced Codes. *The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code. When this code does not specifically cover any subject related to building design and construction, recognized architectural or engineering practices shall be employed. The National Fire Codes, standards, and the Fire Protection Handbook of the National Fire Protection Association are permitted to be used as authoritative guides in determining recognized fire prevention engineering practices.*

1.1.6 NonBuilding Standards, Orders and Regulations. *Requirements contained in the Uniform*

Mechanical Code or in any other referenced standard, code or document, which are not building standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code. For nonbuilding standards, orders, and regulations, see other titles of the California Code of Regulations.

1.1.7 Order of Precedence and Use.

1.1.7.1 Differences. *In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern.*

1.1.7.2 Specific Provisions. *Where a specific provision varies from a general provision, the specific provision shall apply.*

1.1.7.3 Conflicts. *When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, the most restrictive requirements shall prevail.*

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

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

1.1.10 Availability of Codes. *At least one complete copy each of Titles 8, 19, 20, 24, and 25 with all revisions shall be maintained in the office of the building official responsible for the administration and enforcement of this code. Each state department concerned and each city, county or city and county shall have an up-to-date copy of the code available for public inspection, See Health and Safety Code Section 18942(d)(1) and (2).*

1.1.11 Format. *This part fundamentally adopts the Uniform Mechanical Code by reference on a chapter-by-chapter basis. When a specific chapter of the Uniform Mechanical Code is not printed in the code and is marked "Reserved", such chapter of the Uniform Mechanical Code is not adopted as a portion of this code. When a specific chapter of the Uniform Mechanical Code is marked "Not adopted by the State of California" but appears in the code, it may be available for adoption by local ordinance.*

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

1.1.12 Validity. *If any chapter, section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.*

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1.9.0 Division of the State Architect.

1.9.1 Reserved for the Division of the State Architect – Access Compliance.

1.9.2 Division of the State Architect - Structural Safety.

1.9.2.1 Adopting Agency Identification. *The provisions of this code applicable to buildings identified in*

this Subsection 1.9.2.2 will be identified in the Matrix Adoption Tables under the acronym DSA SS.

1.9.2.2 DSA-SS Division of the State Architect – Structural Safety.

Application - Public elementary and secondary schools, community college buildings, and state-owned or state-leased essential services buildings.

Enforcing Agency - Division of the State Architect – Structural Safety (DSA-SS).

The Division of the State Architect has been delegated the responsibility and authority by the Department of General Services to review and approve the design and oversee the construction of public elementary and secondary schools, community colleges, and state-owned or state-leased essential services buildings.

Authority Cited - Education Code Section 17310 and 81142, and Health & Safety Code Section 16022.

References - Education Code Sections 17280 through 17317 and 81130 through 81147, and Health & Safety Code Sections 16000 through 16023.

1.9.2.3 Adopting Agency Identification. *The provision of this code applicable to buildings identified in this Subsection 1.9.2.4 will be identified in the Matrix Adoption Tables under the acronym DSA SS/CC*

1.9.2.4. DSA-SS/CC Division of the State Architect – Structural Safety/Community Colleges.

Application - Community Colleges.

The Division of the State Architect has been delegated the authority by the Department of General Services to promulgate alternate building standards for application to community colleges, which a community college may elect to use in lieu of standards promulgated by DSA-SS in accordance with Section 1.9.2.2. Refer to Title 24, Part 2, Section 1.9.2.4.

Enforcing Agency - Division of the State Architect – Structural Safety/Community Colleges (DSA-SS/CC)

The Division of the State Architect has been delegated the authority by the Department of General Services to review and approve the design and oversee construction of community colleges electing to use the alternative building standards as provided in this section.

Authority Cited - Education Code Section 81053.

References - Education Code Sections 81052, 81053, and 81130 through 81147.

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**DIVISION II
ADMINISTRATION**

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**CALIFORNIA MECHANICAL CODE
CHAPTER 2 - DEFINITIONS**

Repeal Chapter 2 (Definitions) of the 2012 edition UMC.

Adopt Chapter 2 (Definitions) of the 2015 edition UMC with existing DSA amendments continued for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter as amended (amended sections listed below)	X	X	
209.0 Galvanized Steel	X	X	

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209.0

Galvanized Steel. A steel that has been coated with a thin layer of zinc for corrosion protection; *conforming to the requirements of ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coat (Galvanized) or Zinc-Iron Alloy-Coat (Galvanized) by the Hot Dip Process.*

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CALIFORNIA MECHANICAL CODE CHAPTER 3 - GENERAL REQUIREMENTS

Repeal Chapter 3 (General Requirements) of the 2012 edition UMC.

Adopt Chapter 3 (General Requirements) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

CALIFORNIA MECHANICAL CODE CHAPTER 4 - VENTILATION AIR SUPPLY

Repeal Chapter 4 (Ventilation Air Supply) of the 2012 edition UMC.

Adopt Chapter 4 (Ventilation Air Supply) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

CALIFORNIA MECHANICAL CODE CHAPTER 5 - EXHAUST SYSTEMS

Repeal Chapter 5 (Exhaust Systems) of the 2012 edition UMC.

Adopt Chapter 5 (Exhaust Systems) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

CALIFORNIA MECHANICAL CODE CHAPTER 6 - DUCT SYSTEMS

Repeal Chapter 6 (Duct Systems) of the 2012 edition UMC.

Adopt Chapter 6 (Duct Systems) of the 2015 edition UMC with existing DSA amendments continued for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter as amended (amended sections listed below)	X	X	
601.3 (The performance criteria ...)	X	X	

**CHAPTER 6
DUCT SYSTEMS**

601.0 General.

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601.3 *The performance criteria and requirements herein contemplate a duct that is a structural assembly having the capacity to support occupant health and safety while minimizing its own contribution to property damage under emergency conditions. Ducts can supply fresh or treated air in support of life and health, can convey products of combustion away from a fire zone, can maintain a pressure differential that facilitates evacuation and reduces the spread of fire and smoke, and can facilitate firefighter access to a fire source.*

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**CALIFORNIA MECHANICAL CODE
CHAPTER 7 - COMBUSTION AIR**

Repeal Chapter 7 (Combustion Air) of the 2012 edition UMC.

Adopt Chapter 7 (Combustion Air) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 8 - CHIMNEYS AND VENTS**

Repeal Chapter 8 (Chimneys and Vents) of the 2012 edition UMC.

Adopt Chapter 8 (Chimneys and Vents) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 9 - INSTALLATION OF SPECIFIC APPLIANCES**

Repeal Chapter 9 (Installation of Specific Appliances) of the 2012 edition UMC.

Adopt Chapter 9 (Installation of Specific Appliances) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 10 - STEAM AND HOT WATER BOILERS**

Repeal Chapter 10 (Steam and Hot Water Boilers) of the 2012 edition UMC.

Adopt Chapter 10 (Steam and Hot Water Boilers) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 11 - REFRIGERATION**

Repeal Chapter 11 (Refrigeration) of the 2012 edition UMC.
Adopt Chapter 11 (Refrigeration) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 12 - HYDRONICS**

Repeal Chapter 12 (Hydronics) of the 2012 edition UMC.
Adopt Chapter 12 (Hydronics) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 13 - FUEL GAS PIPING**

Repeal Chapter 13 (Fuel Gas Piping) of the 2012 edition UMC.
Adopt Chapter 13 (Fuel Gas Piping) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 14 - PROCESS PIPING**

Repeal Chapter 14 (Process Piping) of the 2012 edition UMC.
Adopt Chapter 14 (Process Piping) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 15 - SOLAR SYSTEMS**

Repeal Chapter 15 (Solar Systems) of the 2012 edition UMC.
Adopt Chapter 15 (Solar Systems) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 16 - STATIONARY POWER PLANTS**

Repeal Chapter 16 (Stationary Power Plants) of the 2012 edition UMC.
Adopt Chapter 16 (Stationary Power Plants) of the 2015 edition UMC without DSA amendment for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter	X	X	

**CALIFORNIA MECHANICAL CODE
CHAPTER 17 – REFERENCED STANDARDS**

Repeal Chapter 17 (Referenced Standards) of the 2012 edition UMC.

Adopt Chapter 17 (Referenced Standards) 2015 edition UMC with DSA amendments continued for publication in the 2016 triennial edition of the CMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter as amended (amended sections listed below)	X	X	
Table 1701.0 Standards for Equipment and Materials	X	X	

**CHAPTER 17
REFERENCED STANDARDS**

1701.0 General.

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**TABLE 1701.0
REFERENCED STANDARDS**

STANDARD NUMBER	STANDARD TITLE	APPLICATION	REFERENCED SECTION
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**APPENDIX A – RESIDENTIAL PLAN EXAMINER
REVIEW FORM FOR HVAC SYSTEM DESIGN**

DSA is not proposing the adoption of Appendix A (Residential Plan Examiner Review Form for HVAC System Design) of the 2015 edition UMC. DSA did not adopt Appendix A (Residential Plan Examiner Review Form for HVAC System Design) of the 2012 edition UMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter			

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

DSA is not proposing the adoption of Appendix B (Procedures to be Followed to Place Gas Equipment in Operation) of the 2015 edition UMC. DSA did not adopt Appendix B (Procedures to be Followed to Place Gas Equipment in Operation) of the 2012 edition UMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter			

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

DSA is not proposing the adoption of Appendix C (Installation and Testing of Oil (Liquid) Fuel-Fired Equipment) of the 2015 edition UMC. DSA did not adopt Appendix C (Installation and Testing of Oil (Liquid) Fuel-Fired Equipment) of the 2012 edition UMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter			

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

DSA is not proposing the adoption of Appendix D (Fuel Supply: Manufactured/Mobile Home Parks and Recreational Vehicle Parks) of the 2015 edition UMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter			

APPENDIX E – SUSTAINABLE PRACTICES

DSA is not proposing the adoption of Appendix E (Sustainable Practices) of the 2015 edition UMC. DSA did not adopt Appendix E (Sustainable Practices) of the 2012 edition UMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter			

APPENDIX F – SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS

DSA is not proposing the adoption of Appendix F (Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances, and Appliances Listed for Use With Type B Vents) of the 2015 edition UMC. DSA did not adopt Appendix F (Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances, and Appliances Listed for Use With Type B Vents) of the 2012 edition UMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter			

APPENDIX G – EXAMPLE CALCULATION OF OUTDOOR AIR RATE

DSA is not proposing the adoption of Appendix G (Example Calculation of Outdoor Air Rate) of the 2015 edition UMC. DSA did not adopt Appendix G (Example Calculation of Outdoor Air Rate) of the 2012 edition UMC.

Adopting Agency	DSA-SS	DSA-SS/CC	Comments
Adopt Entire Chapter			

(All existing amendments that are not revised above shall continue without any change)

Notation for [DSA-SS]

Authority: Education Code § 17310 and 81142, and H&S Code §16022.

References: Education Code §§ 17280 through 17317, and 81130 through 81147, and H&S Code §§16000 through 16023.

Notation for [DSA-SS/CC]

Authority: Education Code § 81053.

Reference: Education Code §§ 81052, 81053, and 81130 through 81147.