# ­­ FINAL EXPRESS TERMS

**FOR**

# PROPOSED BUILDING STANDARDS

**OF THE**

**CALIFORNIA BUILDING STANDARDS COMMISSION**

**REGARDING THE**

**2019 CALIFORNIA MECHANICAL CODE**

**CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4**

**(BSC 03/18)**

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

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

## LEGEND FOR EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

1. Model Code language appears upright.
2. Existing California amendments appear in *italics*.
3. Amended model code or new California amendments appear *underlined and in italics*.
4. Repealed model code language appears ~~upright and in strikeout~~.
5. Repealed California amendments appear in *~~italics~~* ~~and~~ *~~strikeout~~*.
6. Ellipsis (. . .) indicate existing text remains unchanged.

**FINAL EXPRESS TERMS**

The California Building Standards Commission (BSC) proposes to adopt the 2018 edition of the Uniform Mechanical Code (UMC) for codification and effectiveness into the 2019 edition of the California Mechanical Code (CMC) as presented on the following pages, including any necessary amendments. BSC further proposes to:

Repeal the 2015 edition of the UMC;

Repeal amendments to the model code that are no longer necessary, repeal or amend building standards that are not addressed by a model code;

Relocate or codify existing adopted and necessary amendments to the model code into the format of the model code proposed for adoption, the action of which has no regulatory effect; adopt new necessary amendments to the model code proposed for adoption; and/or

Adopt new building standards that are not addressed by the model code proposed for adoption

# PROPOSED REPEALS, ADOPTIONS AND NEW AMENDMENTS

**ITEM 1. BSC proposes to bring forward existing California amendments in Chapter 1*, Division I* through Chapter 1, *Division II* from the 2016 California Mechanical Code for adoption into the 2019 edition of the California Mechanical Code with additional amendments as follows:**

## CHAPTER 1

***CALIFORNIA ADMINISTRATION***

***DIVISION I***

***1.1.0 General***

***1.1.1 Title.*** *These regulations shall be known as the California Mechanical Code, may be cited as such and will be referred to herein as “this code.” The California Mechanical Code is Part 4 of thirteen parts of the official compilation and publication of the adoption, amendment, and repeal of 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 ~~2015~~ 2018 Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials with necessary California amendments.*

***1.1.2 Purpose.*** *The purpose of this code* ***…***

***…***

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

*. . .*

***1.1.8.2 Locally Adopted Energy Standards – California Energy Code, Part 6.*** *In addition to the provision of Section ~~89.101.8.1~~ 1.1.8.1 of this ~~P~~part, the provisions of this section ~~applies~~ apply to cities, counties, and ~~city~~ cities and ~~county~~ counties amending adopted energy standards affecting buildings and structures subject to the California Energy Code, Part 6.*

## SECTION 1.2

***BUILDING STANDARDS COMMISSION***

***1.2.0 Building Standards Commission.***

***1.2.1 BSC*** *Specific scope of application of the agency responsible* ***…***

***1. State Buildings for all Occupancies.***

***Application*** *– State buildings (all occupancies), including buildings constructed* ***…***

***2. University of California, California State Universities, and California Community Colleges.***

***Application*** *– Standards for lighting for* ***…***

***3. Existing State-Owned Buildings, including those owned by the University of California and by the California State University*** *– Building seismic retrofit* ***…***

***4. Unreinforced Masonry Bearing Wall Buildings.***

***Application*** *– Minimum seismic strengthening* ***…***

***…***

***~~1.2.2.1~~ 1.2.1.1 State building.*** *For purposes* ***…***

***~~1.2.2.2~~ 1.2.1.2 Enforcement.******…***

***Exception:*** *State buildings regulated by other sections of this code remain the enforcement responsibility of the designated entities.*

***~~1.2.2.3~~ 1.2.1.3 Enforcement, Reserved for DGS.***

***~~1.2.2.4~~ 1.2.1.4 Adopting agency identification.*** *The provisions of this code applicable to buildings identified in this section will* ***…***

***~~1.2.3~~ 1.2.2 BSC-CG.*** *Specific scope of application of the agency responsible for enforcement, the enforcement agency, and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

1. ***Green building standards for nonresidential occupancies.***

***Application*** *– All occupancies where no other state agency has the authority to adopt green building standards applicable to those occupancies.*

***Enforcing agency*** *– State or local agency specified by the applicable provisions of law.*

***Authority cited*** *– Health and Safety Code Sections 18930.5, 18938 and 18940.5.*

***Reference*** *– Health and Safety Code, Division 13, Part 2.5, commencing with Section 18901.*

1. ***Graywater systems for nonresidential occupancies.***

***Application*** *– The construction, installation, and alteration of graywater systems for indoor and outdoor uses in nonresidential occupancies.*

***Enforcing agency*** *– State or local agency specified by the applicable provisions of law.*

***Authority cited*** *– Health & Safety Code Section 18941.8.*

***Reference*** *– Health & Safety Code Section 18941.8.*

***~~1.2.2~~ 1.2.3 Alternate Materials, Design, and Methods of Construction and Equipment.*** *The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design, or method of construction shall be approved where the building finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method of work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quantity, strength, effectiveness, fire resistance, durability and safety.*

***…***

**Notation:**

Authority: Health and Safety Code Sections 18928, 18930.5, 18934.5, 18940.6, 18941.8, and 18949.6.

Reference: Health and Safety Code Section 18928.1, 18934.5, 18940.6, 18941.8, and 18949.6.

**ITEM 2:** **BSC proposes to not adopt Chapter 1 of the 2018 UMC for use in the 2019 CMC as Administration *Division II*.**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 3. BSC proposes to adopt the entire Chapter 2 of the 2018 UMC, as amended, with amended section (definition) listed below, and carry forward the existing amendment without change.**

# CHAPTER 2

**DEFINITIONS**

**. . .**

**209.0 Galvanized steel …**

**. . .**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 4. BSC proposes to adopt the entire Chapter 3 of the 2018 UMC, without amendment.**

# CHAPTER 3

**GENERAL REGULATIONS**

**. . .**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 5. BSC proposes to adopt the entire Chapter 4 of the 2018 UMC as amended, with amended sections listed below, carry forward existing amendments with changes as shown.**

# CHAPTER 4

**VENTILATION AIR**

**. . .**

*[Note: Text from code section 503.3 is relocated from Chapter 5 Exhaust Systems to Chapter 4 Ventilation Air, new section number, 401.2 and 401.2.1.]*

***401.2*** *[Formerly 503.3]* ***Filters. [BSC-CG]*** *In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of ~~8~~ 13. MERV ~~8~~ 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the opera­tion and maintenance manual in compliance with Chapter 5, Division 5.5. of the California Green Building Standards Code (CALGreen).*

***Exception~~s~~ :***

1. *~~An ASHRAE 10-percent to 15-percent efficiency filter shall be permitted for an HVAC unit meeting the 2013 Califor­nia Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design air flow.~~*
2. *~~2.~~ Existing mechanical equipment.*

***~~503.3.1~~ 401.2.1*** *[Formerly 503.3.1]* ***Labeling.*** *Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.*

***…***

**402.1 Occupied spaces.** Occupiable spaces listed in Table 402.1 shall be designed to have ventilation (outdoor) air for occupants in accordance with this chapter. *Ventilation air ~~supply~~ requirements for occupancies for occupancies regulated by the California Energy Commission are found in the California Energy Code.*

**402.1.1…**

**. . .**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 6. BSC proposes to adopt the entire Chapter 5 as amended, amended sections listed below, of the 2018 UMC, with existing amendments to be moved forward without change.**

# CHAPTER 5

**EXHAUST SYSTEMS**

**503.0 Motors, Fans, and Filters**

**503.1 General…**

**503.2 Fans…**

*[Note: Code section references 503.3 and 503.3.1 are proposed for repeal and the text of these sections relocated to Chapter 4, Ventilation Air, to new section numbers 401.2 and 401.2.1.]*

***~~503.3 Filters.~~******~~[BSC-CG], [DSA-SS & DSA-SS/CC]~~*** *~~In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 8. MERV 8 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual in compliance with Chapter 5, Division 5.5. of the California Green Building Standards Code (CALGreen).~~*

***~~Exceptions:~~***

*~~1. An ASHRAE 10-percent to 15-percent efficiency filter shall be permitted for an HVAC unit meeting the 2013 California Energy Code having 60,000 Btu/h (17.6 kW) or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm [848 W/(m~~~~3/~~~~s)] or less at design air flow.~~*

*~~2. Existing mechanical equipment.~~*

***~~503.3.1 Labeling.~~*** *~~Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.~~*

**. . .**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 7. BSC proposes to adopt the entire Chapter 6 of the 2018 UMC, without amendment.**

# CHAPTER 6

**DUCT SYSTEMS**

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 8. BSC proposes to adopt Chapters 7 through 14 of the 2018 UMC, without amendment.**

CHAPTER 7 - COMBUSTION AIR

CHAPTER 8 – CHIMNEYS AND VENTS

CHAPTER 9 – INSTALLATION OF SPECIFIC APPLIANCES

CHAPTER 10 – BOILERS AND PRESSURE VESSELS

**CHAPTER 11 – REFRIGERATION**

**CHAPTER 12 – HYDRONICS**

**CHAPTER 13 – FUEL GAS PIPING**

**CHAPTER 14 – PROCESS PIPING**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 9. BSC proposes to not adopt Chapter 15 of the 2018 UMC.**

# CHAPTER 15 - SOLAR SYSTEMS

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 10. BSC proposes to adopt Chapters 16 and 17 of the 2018 UMC, without amendment.**

# CHAPTER 16 – STATIONARY POWER PLANTS

# CHAPTER 17 – REFERENCED STANDARDS

**. . .**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 11. BSC proposes to not adopt Appendix Chapter A of the 2018 UMC.**

**APPENDIX A - Residential Plan Examiner Review Form for HVAC System Design**

**. . .**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 12. BSC proposes to adopt Appendix Chapters B and C of the 2018 UMC, without amendment.**

APPENDIX B – Procedures to be Followed to Place Gas Equipment in Operation.

APPENDIX C – Installation and Testing of Oil (Liquid) Fuel-Fired Equipment.

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**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5

**ITEM 13. BSC proposes to not adopt Appendix Chapters D, E, F and G of the 2018 UMC.**

APPENDIX D – Fuel Supply: Manufactured/Mobile Home Parks and Recreational Vehicles

APPENDIX E – Sustainable Practices

APPENDIX F – Sizing of Venting Systems and Outdoor Combustion and Ventilation Opening Design

APPENDIX G – Example Calculation of Outdoor Air Rate

**. . .**

**Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1 and 18934.5