APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION

DECEMBER 17, 2024

# COMMISSION ACTION MATRIX plumbing, electrical, mechanical & energy (peme) code advisory COMMITTEE

## 2025 california mechanical code (CMC), TITLE 24, PART 4, 2024 uniform mechanical code (UMC)AGENCY: state fire marshal, SFM 01/24

### LEGEND:

**CAC Actions:** Approve, Disapprove, Approve as Amended, Further Study Required

**Agency Responses:** Accept, Disagree, Withdraw

**CBSC Actions:** Approve, Disapprove, Approve as Amended, Further Study Required

**Matrix Paper Color** (for commission action only): GREEN = uncontested items, YELLOW = challenged items, SALMON = withdrawn, no action required

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

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* Repealed model code language appears ~~upright and in strikeout~~
* Repealed California amendments appear in *~~italic and strikeout~~*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

### ITEM 1, Chapter 1, Administration

Carry forward existing amendments in Division I from the 2022 CMC into the 2025 CMC with modifications as listed below.

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| **SFM 01/24****Item Number 1** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 1-1 | ***1.1.1 Title*** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to amend to update UMC year. | **Approve** |

### ITEM 2, Chapter 2, definitions

Adopt Chapter 2 of the 2024 UMC and carry forward existing California amendments into the 2025 UMC with modifications listed below.

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| **SFM 01/24****Item Number 2** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 2-1 | ***~~Refrigerant.~~******~~Refrigerant Concentration Limit (RCL).~~*****Refrigerant Safety Classifications.****Flammability Classification. *~~Class 2L.~~*** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal language that was early adopted from the 2024 UMC and replace with model code language. | **Approve** |

### ITEM 3, Chapter 3 general regulations

Adopt Chapter 3 of the 2024 UMC and carry forward existing amendments from the 2022 CMC into the 2025 CMC with modifications listed below.

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| **SFM 01/24****Item Number 3** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 3-1 | **303.8.5 Electrical Power** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to amend section adding the “California Electrical Code” in place of NFPA 70. | **Approve** |
| 3-2 | **307.3 Heat Pump and Electric Cooling Appliances** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal language that was early adopted from the 2024 UMC and replace with model code language. | **Approve** |
| 3-3 | **307.4 Absorption Units** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal language that was early adopted from the 2024 UMC and replace with model code language. | **Approve** |

### ITEM 4, Chapter 4 ventilation air

Adopt Chapter 4 of the 2024 UMC and carry forward existing amendments from the 2022 CMC into the 2025 CMC without modification.

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| **SFM 01/24****Item Number 4** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 4 | **Chapter 4** | **Approve** | **Accept** | No Public Comments Received | Adopt Chapter 4 and carry forward existing amendments. | **Approve** |

### ITEM 5, Chapter 5 exhaust systems

Adopt Chapter 5 of the 2024 UMC and carry forward existing amendments from the 2022 CMC into the 2025 CMC with modifications as listed below.

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| **SFM 01/24****Item Number 5** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 5-1 | **505.7.3 Smoke Control Systems** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to modify Section by adding CBC and CFC where required for smoke control systems | **Approve** |

### ITEM 6, Chapter 6 duct systems

Adopt Chapter 6 of the 2024 UMC and carry forward existing amendments from the 2022 CMC into the 2025 CMC with modifications as listed below.

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| **SFM 01/24****Item Number 6** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 6-1 | ***~~606.8~~ 606.4.1* Combination Fire/Smoke Dampers** | **Approve** | **Accept** | No Public Comments Received | SFM proposes relocate 606.8 to 606.4.1. | **Approve** |

### ITEM 7, Chapter 7 combustion air

Adopt Chapter 7 from the 2024 UMC into the 2025 CMC without amendments.

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| **SFM 01/24****Item Number 7** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 7-1 | **Chapter 7** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt Chapter 7 | **Approve** |

### ITEM 8, Chapter 8 chimneys and vents

Adopt Chapter 8 from the 2024 UMC into the 2025 CMC without amendments.

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| **SFM 01/24****Item Number 8** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 8-1 | **Chapter 8** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt Chapter 8 | **Approve** |

### ITEM 9, Chapter 9 installation of specific appliances

Adopt Chapter 9 from the 2024 UMC into the 2025 CMC without amendments.

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| **SFM 01/24****Item Number 9** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 9-1 | **Chapter 9** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt Chapter 9 | **Approve** |

### ITEM 10, Chapter 10 boilers and pressure vessels

Adopt Chapter 10 from the 2024 UMC into the 2025 CMC without amendments.

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| **SFM 01/24****Item Number 10** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 10-1 | **Chapter 10** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt Chapter 10 | **Approve** |

### ITEM 11, Chapter 11 refrigeration

Adopt Chapter 11 from the 2024 UMC and carry forward existing California amendments from the 2022 CMC into the 2025 CMC with modification as listed below.

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| **SFM 01/24****Item Number 11** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 11-1 | **1103.1.1 Safety Group** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-2 | ***~~Table 1103.1.1 REFRIGERANT SAFETY GROUP CLASSIFICATIONS~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-3 | **Table 1104.1 PERMISSIBLE REFRIGERATION SYSTEMS** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-4 | **1104.2 Refrigerant Concentration Limit *~~(RCL)~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-5 | **1104.5 Flammable Refrigerants** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-6 | ***~~1104.6 Group A2L Refrigerants for Human Comfort~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-7 | ***~~1104.6.1 Refrigerant Concentration Limits~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-8 | ***~~1104.6.2 Listing and Installation Requirements~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-9 | ***~~1104.6.2.1 Nameplate~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-10 | ***~~1104.6.2.2 Labeling~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-11 | ***~~1104.6.2.3 Refrigerant Detection Systems~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-12 | ***~~1104.6.2.4 Refrigerant Concentration Above Limit~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-13 | ***~~1104.6.3 Ignition Sources Located in Ductwork~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-14 | ***~~1104.6.4 Mechanical Ventilation~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-15 | ***~~1104.6.5 Compressors and Pressure Vessels Located Indoors~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-16 | ***~~1104.6.6 Refrigerant Sensors~~***  | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-17 | **1104.7 Applications for Human Comfort and for Nonindustrial Occupancies** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-18 | ***~~1104.8~~, ~~1104.8.1~~* *~~, 1104.8.2, 1104.8.3, 1104.8.4~~***  | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal numbering and replace with model code numbering and repeal amended language and replace with model code. | **Approve** |
| 11-19 | ***~~1104.9, 1104.9.1, 1104.9.2, 1104.9.3, 1104.9.4~~***  | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-20 | **1105.12.1 *~~Storing Refrigerant~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-21 | **1106.2.2 Openings** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-22 | ***~~1106.2.3~~***  | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal numbering and replace with model code numbering | **Approve** |
| 11-23 | ***~~1106.2.4~~* *~~Restricted Access~~*** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal numbering and replace with model code numbering | **Approve** |
| 11-24 | ***~~1106.2.5~~* *~~Detectors and Alarms~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-25 | ***~~1106.2.6~~* *~~Refrigerant Detectors~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-26 | ***~~1106.2.7~~* *~~Mechanical Ventilation, 1106.2.8~~* *~~Ventilation~~*** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal numbering and replace with model code numbering | **Approve** |
| 11-27 | ***~~1106.2.9 Emergency Ventilation Required Airflow,~~*** ***~~1106.2.9.1 Ventilation A1, A2, A3, B1, B2 and B3~~*** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal numbering and replace with model code numbering | **Approve** |
| 11-28 | **1106.4*, ~~1106.6,~~* *~~1106.7~~*, *~~1106.8~~*, *~~1106.9~~*, *~~1106.10~~***  | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal numbering and replace with model code numbering | **Approve** |
| 11-29 | ***~~1106.11 Machinery Room, A2L and B2L~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-30 | ***~~1106.11.1 Flame Producing Device~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-31 | ***~~1106.11.2 Communicating Spaces~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-32 | ***~~1106.11.3 Noncombustible Construction~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-33 | ***~~1106.11.4 Exterior Openings~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-34 | ***~~1106.11.5 Pipe Penetrations~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-35 | ***~~1106.11.6, 1106.11.6.1, 1106.11.6.2~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-36 | ***~~1106.11.7 Mechanical Equipment Control~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-37 | ***~~1106.11.8 Refrigerant Detectors~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-38 | ***~~1106.11.9 Refrigerant Detector Requirements~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-39 | ***~~1106.11.10, 1106.11.10.1, 1106.11.10.2~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-40 | ***~~Table 1106.11.10.2 REFRIGERANT DETECTOR SET POINTS, RESPONSE TIMES, ALARMS AND VENTILATION LEVELS~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-41 | ***~~1106.11.10.3 Alarm Levels~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-42 | ***~~1106.11.10.4 Emergency~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-43 | ***~~1106.11.11 Mechanical Ventilation~~***  | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-44 | ***~~1106.11.11.1 Mechanical Ventilation Requirements~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-45 | ***~~1106.11.11.2 Level 1 Ventilation Rate~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-46 | ***~~Table 1106.11.11.2 LEVEL 1 VENTILATION RATE FOR CLASS 2L REFRIGERANTS~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-47 | ***~~1106.11.11.3 Level 2 Ventilation~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-48 | ***~~1106.11.11.4 Level 2 Ventilation Rate~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-49 | ***~~Figure 1106.11.11.4 LEVEL 2 VENTILATION RATE FOR CLASS 2L REFRIGERANTS~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-50 | **1107.1.7, 1107.1.7.1, 1107.1.7.2, 1107.1.7.3, 1107.1.9** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-51 | **1108.2, 1108.3, 1108.4** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to repeal NFPA 70 add CEC, repeal and replace with model code | **Approve** |
| 11-52 | **1112.11.1 Discharging Location Interior to Building** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |
| 11-53 | ***~~1115.5 Nameplate~~*** | **Approve** | **Accept** | No Public Comments Received | Repeal and replace with model code. | **Approve** |

### ITEM 12, Chapter 12 hydronics

Do not adopt Chapter 12 from the 2024 UMC.

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| **SFM 01/24****Item Number 12** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 12-1 | **Chapter 12** | **Approve** | **Accept** | No Public Comments Received | SFM proposes not to adopt Chapter 12 | **Approve** |

### ITEM 13, Chapter 13 fuel gas piping

Adopt Chapter 13 of the 2024 UMC and carry forward existing amendments from the 2022 CMC into the 2025 CMC without modification.

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| **SFM 01/24****Item Number 13** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 13-1 | **Chapter 13** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt Chapter 13 and carry forward existing amendments. | **Approve** |

### ITEM 14, Chapter 14 process piping

Adopt Chapter 14 from the 2024 UMC into the 2025 CMC without amendments.

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| **SFM 01/24****Item Number 14** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 14-1 | **Chapter 14** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt Chapter 14 | **Approve** |

### ITEM 15, Chapter 15 solar energy systems

Do not adopt Chapter 15 from the 2024 UMC.

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| **SFM 01/24****Item Number 15** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 15-1 | **Chapter 15** | **Approve** | **Accept** | No Public Comments Received | SFM proposes not to adopt Chapter 15 | **Approve** |

### ITEM 16, Chapter 16 stationary power plants

Adopt Chapter 16 from the 2024 UMC and carry forward existing amendments from the 2022 CMC into the 2025 CMC without modification.

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| **SFM 01/24****Item Number 16** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 16-1 | **Chapter 16** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt Chapter 16 and carry forward existing amendments. | **Approve** |

### ITEM 17, Chapter 17 geothermal energy systems and ambient temperature loops

Adopt Chapter 17 from the 2024 UMC into the 2025 CMC without amendments.

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| **SFM 01/24****Item Number 17** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 17-1 | **Chapter 17** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt Chapter 17 | **Approve** |

### ITEM 18, Chapter 18 referenced standards

Adopt Chapter 18 from the 2024 UMC and carry forward existing amendments from the 2022 CMC into the 2025 CMC with modifications and new amendments as listed below.

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| **SFM 01/24****Item Number 18** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 18-1 | **AMCA 540-~~2013~~ *2023*****ASME B16.18-~~2018~~ *2023*****ASME B16.22-~~2018~~ *2023*****ASME B31.3~~-2020~~ *2022*****NFPA 2-~~2019~~ *2023*****NFPA 13-~~2022~~ *2025*****NFPA 17-~~2021~~ *2024*****NFPA 17A-~~2021~~ *2024*****NFPA 30A-~~2021~~ *2024*****NFPA 51-~~2018~~ *2023*****NFPA 52-~~2019~~ *2023*****NFPA 54/ANSI Z223.1-~~2021~~ *2024*****NFPA 58-~~2020~~ *2024*****NFPA 68-~~2018~~ *2023*****NFPA 70-~~2020~~ *2023*****NFPA 85-~~2019~~ *2023*****NFPA 86-~~2019~~ *2023*****NFPA 88A-~~2019~~ *2023*****NFPA 90A-~~2021~~ *2024*****NFPA 90B-~~2021~~ *2024*****NFPA 92-~~2018~~ *2024*****NFPA 99-~~2021~~ *2024*****NFPA 105-~~2019~~ *2025*****NFPA 211-~~2019~~ *2024*****NFPA 262-~~2019~~ *2023*****NFPA 750-~~2019~~ *2023*****NFPA 780-~~2020~~ *2023*** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt the latest edition of the standards. | **Approve** |

### ITEM 19, appendices a - j

Do not adopt Appendices A – J from the 2024 UMC.

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| **SFM 01/24****Item Number 19** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 19-1 | **Appendices A - J** | **Approve** | **Accept** | No Public Comments Received | SFM proposes not to adopt Appendices. | **Approve** |

### ITEM 20, useful table

Adopt “Useful Table” from the 2024 UMC into the 2025 CMC without amendment.

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| **SFM 01/24****Item Number 20** | **Code Section** | **CACAction** | **Agency Response** | **Public Comments** | **Annotations** | **CBSCAction** |
| 20-1 | **Useful Tables** | **Approve** | **Accept** | No Public Comments Received | SFM proposes to adopt “Useful Tables” | **Approve** |