# ADDITIONAL 15-DAY EXPRESS TERMS AND RATIONALE FOR PROPOSED BUILDING STANDARDS OF THE STATE FIRE MARSHAL REGARDING THE 2022 CALIFORNIA MECHANICAL CODE,

# CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4

# (SFM 01/21)

No state agency may adopt, amend, or repeal a regulation which has been changed from that which was originally made available to the public pursuant to Section 11346.5, unless the change is (1) nonsubstantial or solely grammatical in nature, or (2) sufficiently related to the original text that the public was adequately placed on notice that the change could result from the originally proposed regulatory action. If a sufficiently related change is made, the full text of the resulting adoption, amendment, or repeal, with the change clearly indicated, shall be made available to the public for at least 15 or 45 days before the agency adopts, amends, or repeals the resulting regulation.

Any written comments received regarding the change must be responded to in the final statement of reasons required by Section 11346.9 (Government Code Section 11346.8(c)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, double strikeout, italics and ellipsis. Double underline will be indicated by parenthetical notes within the text. The notes will not be codified or published in the code.

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

* Model Code language appears upright.
* Unmodified California 45-day amendments appear in *underline and italic* and *~~strikeout and italic~~.*
* California additional 15-day amendments appear in *double underline and italic* and *double strikeout and italic*.
* Ellipsis ( ...) indicate existing text remains unchanged.
* **Rationale**: The justification for the change is shown after each section or series of related changes.

# ADDITIONAL 15-DAY EXPRESS TERMS

**Item 11-2 (Addendum in Initial submittal)  
Chapter 11, Refrigeration, Section 1104.6 Applications for Human Comfort and for Nonindustrial Occupanices**

**1104.0 Requirements for Refrigerant and Refrigeration**

**System Use.**

…

**1104.6 Applications for Human Comfort and for Nonindustrial Occupancies**. In nonindustrial occupancies, Group A2, A2L, A3, B1, B2L, B2, and B3 refrigerants shall not be used in high-probability systems for human comfort.

***Exceptions:***

*(1) Listed equipment, units having a factory-sealed refrigerating system, self-contained factory sealed units containing no more than 2.2 lbs. (1kg) of A2L refrigerant installed in accordance with the listing and the manufacturer’s installation instructions.*

*(2) Listed equipment for non-residential commercial use applications only, having a factory-sealed refrigerating system and self-contained factory-sealed units containing no more than 4 lbs. (1.8 kg) of A2L refrigerant installed in accordance with the listing and the manufacturer’s installation instructions.*

**Rationale:**

The SFM received a comment from AHRI during 45-Day public comment period with a suggestion to make some editorial changes to Section 1104.6 Applications for human comfort and for nonindustrial occupancies. The new proposed language is a result of the suggestions from AHRI and the SFM A2L workgroup.

Re: AHRI Comments - COMBINED NOTICE OF 45-DAY PUBLIC COMMENT PERIOD FOR PROPOSED BUILDING STANDARDS FOR THE CALIFORNIA BUILDING STANDARDS CODE, TITLE 24 of the CALIFORNIA CODE OF REGULATIONS: Office of the State Fire Marshal - SFM 01/21 - Adopt and amend the 2022 edition of the California Mechanical Code, Part 4, Title 24

The Air Conditioning, Heating, and Refrigeration Institute (AHRI) submits this comment in response to the proposed changes to the California State Building Code by the Office of the State Fire Marshal.

AHRI represents more than 300 manufacturers of air conditioning, heating, and commercial refrigeration equipment. It is an internationally recognized advocate for the heating, ventilation, air conditioning, and refrigeration (HVACR) industry and certifies the performance of many of the products manufactured by its members. Industry has been working for more than a decade to understand the safe use of next generation refrigerants spending well over $7 million on research.

AHRI has worked closely with the California Air Resources Board (CARB) to find a way forward to meet California’s ambitious climate goals while ensuring that these goals result in a safe transition to next generation refrigerants.

The California State Fire Marshal (SFM) has submitted a code change proposal to allow for the use of small charges of lower flammability (A2L) refrigerants in equipment that will be required to transition in 2023 per the CARB regulatory proposal approved by the Board in December 2020.

However, there are some issues with the SFM proposed language that can easily be addressed with minor edits to the language proposed to  further limit the refrigerant charge size for residential occupancies and to exclude the installation of field charged equipment while still allowing compliance with CARB’s required transitions.

**The California Air Resources Board (CARB) Proposal Approved by the Board in December 2020:**

Table 3: End use and Prohibited Substances
Table with four columns and three rows. Row one is the Header row. Row two indicates that these are for Air conditioning Equipment, Stationary. Row three, column one General end use is Air conditioning equipment; Column two Specific end use is Room/wall/window air conditioning equipment, PTACs, PTHPs, portable air conditioning equipment and residential dehumidifiers (new); column three Prohibited substances is refrigerants with a GWP of 750 or greater; Column four Effective date is prohibited as of January 1, 2023.


The 2021 Uniform Mechanical Code (UMC) defines “self-contained” as *“having all essential working parts, except energy and control connections, so contained in a case or framework that they do not depend on appliances or fastenings outside of the machine.”*

Some “factory-sealed” packaged terminal air conditioners (PTACs) and portable air conditioners are designed to be used with duct work and would not comport with the 2021 UMC definition of “self-contained.” This includes equipment required to transition in 2023 by the California Air Resources Board to low global warming potential (GWP) refrigerants. Secondly, the term “factory-sealed refrigerating system” could be used as alternative language for “self-contained factory sealed units”.

AHRI appreciates the opportunity to comment on the proposed building code modification made by SFM and would be happy to provide additional information as needed.

**Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178 and 51179, Public Resources Code Sections 4201 through 4204