

**INITIAL STATEMENT OF REASONS
FOR PROPOSED BUILDING STANDARDS
OF THE STATE FIRE MARSHAL
REGARDING THE 2025 CALIFORNIA MECHANICAL CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4
(SFM 02/25)**

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 the 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.

ITEM 1

Chapter 18 Reference Standards, ASHRAE 15

The State Fire Marshal (SFM) proposes to adopt 2024 edition of ASHRAE 15 “Safety Standard for Refrigeration Systems” including Addendum A. This proposal resulted from a petition, SFM received on November 3, 2025. SFM currently adopts 2022 edition of ASHRAE 15 as referenced in 2025 California Mechanical Code (CMC). 2022 and 2024 editions of ASHRAE 15 require flammable refrigerant piping to be installed within enclosed, fire-rated, ventilated shafts. Addendum A update to 2024 edition created an exception that eliminates the shaft requirement when refrigerant piping meets rigorous testing protocols outlined in Section 9.13.

To reduce greenhouse gas (GHG) emissions, regulatory agencies at the state and national levels have focused significant attention on how refrigerant gases contribute to the climate change crisis. As a result, these agencies have adopted regulations, guidelines, and policy goals aimed at the rapid transition from refrigerants with a high Global Warming Potential (GWP) to those classified as low or ultra-low GWP in new and existing buildings.

Some of these low-GWP refrigerant gases (A2Ls) are mildly flammable, prompting safety standards development entities, such as the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), to address the flammability safety issues associated with their use. ASHRAE regularly updates these safety requirements in its publication, ASHRAE Standard 15 – Safety Standard for Refrigeration Systems.

ASHRAE did update its long-standing safety standard, ASHRAE 15, on May 30, 2025, to address emerging flammability concerns. California relies heavily on this standard, incorporating its provisions extensively into the California Mechanical Code.

The most recent edition of ASHRAE 15 (2022 and 2024) requires flammable refrigerant piping to be installed within enclosed, fire-rated, ventilated shafts. This creates substantial cost and design burdens for new buildings, making retrofits in existing buildings extremely difficult or financially unrealistic. These constraints pose a major obstacle to California’s

climate goals, which depend on the rapid adoption of low-GWP refrigerants across both new and existing building stock.

The ASHRAE 15, with Addendum A update, created an exception that eliminates the shaft requirement when refrigerant piping meets rigorous testing protocols outlined in Section 9.13. This amendment provides design flexibility for the safe installation of A2L refrigerants, particularly in existing buildings where shaft construction is often a challenge.

Substantiation

California Governor Gavin Newsom has declared a “climate crisis” in numerous Executive Orders and directives to state agencies over the past five years. A search on the Governor’s website for matters related to the “climate crisis” finds over 900 results.

The California Air Resources Board’s (CARB) Final 2022 Scoping Plan references the Building Standard Commission’s critical need for the BSC to “adopt the latest safety standards for refrigerant-containing equipment into the California building codes.”

As cited in the highlighted passage, CARB’s Scoping Plan also refers to AB 209, legislation passed in 2022. This legislation included a statutory mandate explicitly directing the California Building Standards Commission to adopt the most recent versions of ASHRAE Standard 15 as an essential component in California’s transition from high-GWP refrigerants to low—and ultra-low refrigerants. Health and Safety Code Section 18944.21 is reprinted below:

Health & Safety Code Section 18944.21 (AB 209)

18944.21. (a) Not later than July 1, 2023, the commission shall consider whether to adopt the most recent versions of the following consensus safety standards, to be codified and published in the California Building Standards Code: American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 15-2019; ASHRAE Standard 34-2019; Underwriters Laboratories (UL) 60335-2-89 2nd edition; and UL 60335-2-40 3rd edition.

(b) If the commission does not adopt all of the consensus safety standards listed in subdivision (a), then effective July 1, 2024, no state or local building code provision shall prohibit the use of a refrigerant listed as acceptable under Section 7671k of the federal Clean Air Act (42 U.S.C. Sec. 7401 et seq.), provided each use is installed in accordance with the most recent version of ASHRAE Standard 15 and the applicable listing standard, such as UL 60335-2-89 or UL 60335-2-40.

CAC Recommendation:

Approve

Agency Response:

Accept

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.

The SFM believes that the amendments to the code are necessary to ensure the safe and consistent implementation of the latest edition of ASHRAE 15, including Addendum A, because the transition to new flammable refrigerants needs system integrity, uniform statewide requirements, and safe building practices.

ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION

Government Code Sections 11346.2(b)(2) and 11346.3(b)(1)

The Office of the State Fire Marshal has assessed whether 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 of new or cause the elimination of existing businesses 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.

These regulations will strengthen environmental protection as well as provide the latest fire safety standards.

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).

The State Fire Marshal affirms that this rulemaking action is supported by assessing consistency with existing California building standards, and publicly available ASHRAE documentation describing the basis and safety rationale for the updated standard.

The SFM relied on expert input regarding the operational impacts of the proposed amendment, as well as comparative reviews of other jurisdictions that have already adopted the latest edition. The SFM has determined that the proposed regulatory action will not adversely affect safety, the environment, or other areas identified in Government Code section 11346.5.

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 alternative. It is not the intent of this paragraph to require the agency to artificially construct alternatives or describe unreasonable alternatives.

The SFM has determined that the proposed changes do not mandate the use of specific technologies or equipment, nor do they prescribe specific actions or procedures.

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.

The SFM has determined that no alternative considered would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed adoption by reference with SFM amendments. Therefore, there are no alternatives available to the SFM regarding the proposed adoption of this code.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE ECONOMIC 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.

The SFM has determined that this proposed action will not have a significant adverse economic impact on businesses. The technical analysis, industry data, and expert testimony demonstrate that the updated standard imposes no new equipment mandates and does not require businesses to purchase new technology, providing greater design flexibility.

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.

The SFM does not anticipate any costs associated with compliance with the proposed building standards. The proposed changes clarify, conform, and coordinate existing code provisions without altering their substance or intent. The benefits of these regulations are to have clear, concise, complete, and updated text of the regulations and standards.

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 SFM has determined that this proposed rulemaking action does not unnecessarily duplicate or conflict with federal regulations contained in the Code of Federal Regulations that address the same issues as this proposed rulemaking.