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March 13, 2025

To: United States building officials, plans examiners, and authorities having jurisdiction

Re: Updated model codes and legislation allowing the installation, use, and storage of products using A2L refrigerants

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) is providing this information to assist in the transition to A2L refrigerants prior to code updates in your jurisdiction. AHRI represents more than 330 manufacturers of air conditioning, heating, and refrigeration equipment. It is an internationally recognized advocate for the heating, ventilation, air conditioning, commercial refrigeration (HVACR), and water heating industry and certifies the performance of many of the products manufactured by its members. In North America, the annual economic activity resulting from the HVACR and water heating industry is more than \$211 billion. In the United States alone, AHRI member companies, along with distributors, contractors, and technicians employ more than 704,000 people.

As of January 1, 2025, the heating, ventilation, air-conditioning, and commercial refrigeration (HVACR) and water heating industry must comply with federal regulations that ban the manufacturing of equipment that uses the current high global warming potential (GWP) refrigerants, including R-410A. The new low GWP refrigerants are classified as flammable gas Category 1B (very low flammability) as per the 2024 editions of the International Fire Code (IFC) and NFPA 1. Refrigerants that are classified as Category 1B flammables are categorized as A2L refrigerants by ASHRAE 34.

Many states have updated their codes to address this refrigerant transition. However, some states have passed legislation that allows the use of A2L refrigerants as approved by the Environmental Protection Agency's (EPA) Significant New Alternatives Policy (SNAP) Program until state and local codes can be updated. These states have taken this action because the EPA requires use of new low GWP refrigerants before their code cycles are complete. AHRI's interactive building codes map, which can be found by following the QR code below, contains information about the regulatory status of each state and US territory.

New HVACR and water heating equipment is required to have proper mitigations for these refrigerants to be used safely. The 2024 editions of International Code Council (ICC), National Fire Protection Association (NFPA), and International Association of Plumbing and Mechanical Officials (IAPMO) model codes incorporate requirements for the safe use of products containing A2L refrigerants in accordance with ASHRAE 15 (2022) and UL 60335-2-40 (2022) (for HVAC equipment) or UL 60335-2-89 (2021) (for commercial refrigeration equipment).

Category 1B flammable gases were added to building codes, with corresponding maximum allowable quantities (MAQs) in the 2024 IFC, International Building Code (IBC), NFPA 1, and NFPA 5000. The increased allowances for Category 1B flammable gases, including A2L refrigerants, include additional safety features (i.e., sprinklers and creating control areas with 1-hour fire barriers) that can be implemented to further increase these MAQs. These requirements are found in the following locations:

- 2024 International Fire Code – Table 5003.1.1(1)



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- 2024 International Building Code – Table 5003.1.1(1)
- 2024 NFPA 1 – Table 60.4.2.1.1.3 refers to Table 6.3.1.1 in the 2023 Edition of NFPA 55
- 2024 NFPA 5000 – Table 34.1.3.1 refers to Table 6.3.1.1 in the 2023 Edition of NFPA 55

AHRI is committed to working with all jurisdictions to ensure a smooth refrigerant transition. Please let me know if you have any questions or if we can provide additional information.

Regards,

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See the AHRI A2L interactive map here:

