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2020-2021 ASHRAE President

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August 24, 2020

Mr. Greg Andersen
Chief of Code Development & Analysis
CAL FIRE/Office of the State Fire Marshal
2251 Harvard Street
P.O. Box 944246
Sacramento, CA 95815

Letter Sent Via Email to Greg.andersen@fire.ca.gov

RE: Code Requirements related to the CARB Proposed Regulation: *Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Stationary Air-conditioning, and Other End Uses*

Dear Chief Andersen:

I am writing with respect to the Office of the State Fire Marshal, which works to protect life and property through fire prevention engineering programs, law and code enforcement and education. Even though code adoption is the focus of this letter, I also want to thank the California Department of Forestry and Fire Protection (CAL FIRE) as it fights the devastating wildfires in your state.

On January 30, 2020, the California Air Resources Board (CARB) proposed a regulation entitled, "Prohibition on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Stationary Air-Conditioning, and Other End Uses," which will result in a transition to next generation refrigerants, some of which are mildly flammable. This in turn, motivates in tandem the adoption of standards for the safe handling of refrigerants. ASHRAE recently updated its Standard 15-2019, *Safety Standard for Refrigeration Systems*, and ASHRAE Standard 34-2019, *Designation and Classification of Refrigerants*, so that they address these next generation refrigerants. ASHRAE is also developing Standard 15.2, *"Safety Standard for Air-conditioning and Heat Pump Systems in Residential Application,"* which also should be adopted by California once the standard is finalized.

Some additional context concerning this transition in refrigerants follows. Ozone-depleting CFCs and HCFCs have largely been replaced with hydrofluorocarbons (HFCs), some have high global warming potential (GWP) and are being restricted as the world deals with global climate change. Recently, fluorinated alternatives referred to as hydrofluoroolefins (HFOs) have been introduced. They have zero

ozone-depleting potential (ODP) and very low GWP, but some of them are mildly flammable. There are also blends (mixtures of different HFCs & HFOs from the same or different class/group) that are available as transitional or long-term solutions with different flammability and GWP value characteristics. ASHRAE's standards for the classification and safe use of refrigerants were updated in 2019 to address these new types of refrigerants. However, the state of California has not yet updated its building codes with these updated standards. If the standards are not adopted by California in a timely fashion, the state should consider making adjustments to its phase-down schedule. In a separate letter, we have shared these comments with CARB for its consideration.

As California commits to the phasedown of high-GWP HFCs, ASHRAE wants to ensure safety standards are concurrently incorporated into building codes, and we would be happy to answer any of your questions, or provide a briefing to you or your staff on these standards. To follow-up, please contact me or have your staff contact GovAffairs@ashrae.org. Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink that reads "Ch E. Gullledge III, PE". The signature is written in a cursive, flowing style.

Charles E. Gullledge III, P.E., FASHRAE, HBDP, LEED AP
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