



Shaping Tomorrow's  
Built Environment Today

## REFRIGERANTS AND THEIR RESPONSIBLE USE

### THE ISSUE

Choosing a refrigerant for a given HVAC&R application has become increasingly complex due to direct and indirect environmental impacts, performance, cost-effectiveness and safety for employees and the public. Following the implementation of the Kigali Amendment to the Montreal Protocol in 2019, the use of lower global warming potential (GWP) refrigerants are beginning to replace high GWP refrigerants. Many of the lower GWP refrigerants are mildly flammable, which require the updating of building codes and standards. Ultra-low GWP refrigerants are also being used and considered for certain applications and it is important to ensure these refrigerants are used safely, efficiently, and cost-effectively.

### ASHRAE's ROLE

With its technical expertise, ASHRAE plays a key role in guiding the selection and analysis of new refrigerants, and the potential environmental and societal consequences of their use. ASHRAE contributed to successfully phasing out the use of ozone depleting refrigerants and is already contributing to reducing the use of high GWP refrigerants. ASHRAE develops voluntary technical standards and guidelines governing the classification, application, and use of refrigerants, which are referenced by various codes and regulations, globally.

As lower GWP refrigerants become more prevalent, ASHRAE commits to their safe application in residential, commercial and industrial uses as prescribed by Standard 34-2022, *Designation and Classification of Refrigerants*, Standard 15-2022, *Safety Standard for Refrigeration Systems*, and the Standard 15.2-2022, *Safety Standard for Refrigeration Systems in Residential Applications*. Significant updates to these standards were made to address safe use of low-GWP A2L refrigerants.

### ASHRAE's VIEW

ASHRAE supports the classification and use of refrigerants based on safety, performance and environmental impact. As the transition to more climate-friendly alternatives continues, ASHRAE supports reducing emissions from high GWP refrigerants through research, education, and improvements to design, installation, operation, maintenance, and decommissioning of equipment, including minimization of leakage and accurate accounting and reporting in accordance with applicable standards and policies.

ASHRAE supports the global phasedown of the production and consumption of high GWP refrigerants and encourages the adoption of the latest standards in order to enable use of lower GWP refrigerants. ASHRAE continues to update its standards to reflect low GWP refrigerants and solutions.

Furthermore, used refrigerants should be safely recovered for reuse, recycle, reclamation or destruction during service or at the end of the equipment life. Refrigerant inventory and management programs should be implemented to closely track refrigerant use.