Changing Seasons

After a harsh winter and not much better spring, summer is making me feel better already! But, then, maybe my tolerance for that cold stuff is disappearing and my memory is slipping in regards to the challenges that summer brings to the HVACR industry. I find myself hoping that the training sessions I attended will help me through another season of questions.

I am referring to the realization that the technologies and new refrigerants that have been slowly simmering in the background of our industry have now come to a roaring boil. By now I hope we are all aware of the constant expansion of the use of “natural” refrigerants such as R-290, R-600a, R-744, R-717 and others. I am sure you will encounter these refrigerants, if not during installation or service, likely when reaching for a cold beverage or a frozen treat at the supermarket, convenience store or even the gas station. We can no longer ignore their existence.

On the flip side of these higher profile refrigerants, we must not forget the use of the fully synthesized refrigerants, which include HFCs, HFOs and their numerous ever-growing blends. These include replacements for R-410A, R-134a, R-32 (already), R-404a, R-507 and all the other refrigerants with higher Global Warming Potential (GWP). The list continues to grow and, by the time you read this, will be out-of-date.

This is where my memory does not fail me—it sounds like 1990 all over again. The difference is that the urgency of the last century was about phasing-out ozone depleting refrigerants which, for the most part, consisted of A1 refrigerants that were adapted to existing technologies requiring minor modifications.

Looking at this century, the urgency of refrigerant phase-out has been based on greenhouse effect, global warming, climate change—not sure what the newest buzzword is.

However, this is only part of the equation. In my opinion, this century is more about energy efficiency, product inventiveness, maximization of the thermodynamic principles of refrigeration, and its applications.

This is all being done while floating outside of the realm of A1 refrigerants and exploring the use of A2L, A3 and the B-classified refrigerants. In other words, we are no longer coloring inside the lines using A1 refrigerants with the same basic technology that was developed in the 1930s. Our training techniques and methods need to evolve and greatly expand from these basics; otherwise students are learning history and not technology.

To get a grip on this century’s changing seasons, we need industry experts to expand their training so that it is easier for all field technicians to access—online training is good, but face-to-face is better. By pushing our technicians to become more knowledgeable, they will become more effective, more efficient, and more productive on a daily basis, while protecting themselves from the associated risks and hazards of our trade with the knowledge of how to overcome these in a safe manner.

As always, RSES is willing to work with all of the industry experts to assist in spreading the news in an accurate, fact-based and knowledge-oriented manner. That’s something that never changes with the seasons!

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