California Air Resources Board
Research Division
1001 I Street
Sacramento, CA
95814

November 10, 2017

Attn: Glenn Gallagher; Pamela Gupta

Re: CARB's Proposed Rulemaking on HFC Emissions Reductions

Trakref is a HVAC/R and refrigerant management software company that provides comprehensive tracking of refrigerants throughout their entire lifecycle. We offer unparalleled refrigerant compliance reporting and pride ourselves in helping end-users mitigate the environmental, health, and/or safety risks associated with using the various types of refrigerants.

Adopting Provisions of SNAP Rules 20 and 21 Provides Market and Regulatory Certainty

More than just a software, Trakref is a HVAC/R rules engine that guides stakeholders and their workforces for better operational and compliance outcomes. Because we are this system of guidance, we very much appreciate the market and regulatory certainty that the California Air Resources Board (CARB) can bring to end-users by adopting certain provisions of the United States Environmental Protection Agency's (U.S. EPA) Significant New Alternatives Policy (SNAP) Rules 20 and 21. After all, refrigerants are the critical fluids that keep us comfortable and safe, and we must know which ones are acceptable to use for the near- and long-term.

Conflict Between CARB's Controls of Refrigeration and SNAP's Comprehensive Impact to HVAC and Refrigeration

The U.S. EPA uses Section 608 and 609 of the Clean Air Act to regulate supplies of these materials. SNAP offers a means to manage demand, and we commend the state for their commitment to reduce use through demand means. However, CARB, through RMP, is currently only controlling refrigerant usage in refrigeration. We encourage CARB to broaden these controls to include air conditioning and heating equipment that contain these affected refrigerants, **so that SNAP measures can be effectively deployed in accordance with the structure of the HFC emissions reduction goals**.

Use of Reclaim and Recycle Gas in Future Planning

In the U.S., nearly all refrigerants used in the field come from disposable non-denomination cylinders. These anonymous cylinders all look the same and lack any defining qualities that would enable the user to discern whether its origin was reclaim or

virgin. The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) requires that member reclaim companies label gas that has been reclaimed as “virgin,” as it must meet the same quality requirements as virgin.

Therefore, allowing reclaim gas for reuse in the California market after the prohibition date should come with some additional requirements, so that it can be certified that the gas is indeed reclaimed and not virgin (i.e., newly produced) product. We strongly encourage CARB to deploy a serialization requirement for each cylinder of gas and then register these cylinders in the same manner that systems are registered today. This is the only means to assure that a “black market” of unregistered and potentially virgin gas does not distort the intentions of reducing HFC emissions. Also, keep in mind that presently almost all refrigerant is vented, and only a small portion of the gas is destroyed (which is the only certified means to guarantee that a gas is not leaked to the atmosphere).

The State’s GHG inventory and HFC Emissions Reduction Goals

Furthermore, presently the state does not count CFCs or HCFCs in their inventory of GHG emissions. The omission of these significant GHGs results in the underestimation of the total impact to the environment from these short-lived climate pollutants (SLCPs). If the State intends to control emissions, then it would also be the responsibility to count this impact as well.

Yes, globally, governments have been excluding CFCs and HCFCs from their inventories. But, the State could include them and use these inventory values to comprehensively validate reduction goals. Of course, we understand that the rulemaking is specifically targeting HFC emissions; however, without a comprehensive inventory of all gases, we can only speculate about the use of each gas since—until the deployment of SNAP Rules—there have been almost no demand-side controls.

In fact, from 1994-2016, most HVAC/R regulations were focused on supply-side management, leaving the end user disengaged from activity related to the performance of their HVAC/R equipment. Within this timeframe, the refrigerant industry has grown from selling a couple hundred million pounds of fluorocarbon refrigerant each year to selling approximately more than 500 million pounds of fluorocarbon refrigerant each year. And, yet, almost all of it has been and continues to be vented into the atmosphere.

System owners, although financially responsible, usually do not have the license or the training to service HVAC/R systems, so we have one set of rules for technicians, another for owners of equipment, and, yet, another for the suppliers and handlers of the gases. These varying requirements for the different levels of stakeholders further complicates one’s ability to manage the complex nature of HVAC/R.

Ultimately, CARB has improved the awareness at the refrigeration system owner level through the RMP and seems to be headed in the same direction with the deployment of SNAP Rules 20 and 21. However, more detail is needed to ensure that users have the

proper guidance and boundary lines they need to both perform the work and reduce the emissions from these SLCPs.

Thank you for your time and for the opportunity to comment on these rulemakings.

Sincerely,

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