



December 7, 2020

California Air Resources Board  
1001 I Street  
Sacramento, CA 95841

*Submitted electronically at [https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=hfc2020&comm\\_period=A](https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=hfc2020&comm_period=A)*

**RE: CARB's Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosol Propellants, and Foam End-Uses Regulation**

Trakref appreciates the opportunity to comment on CARB's proposed amendments to the prohibitions on the use of certain hydrofluorocarbons in stationary refrigeration, chillers, aerosol propellants, and foam end-uses regulation. Trakref is writing to support this regulation.

The goal set by the CARB to curb emissions is an important aspect of the GHG emissions reduction process. The proposed modifications not only provide further stability to the existing R3 program but will also improve the market's confidence to invest in new technology and continue to drive a change in the maintenance practices that have been the cause of significant leaking of HFCs.

Publicly, many groups have voiced concern about the cadence and aggressiveness of the phaseout of HFCs and the transition to low GWP materials. The state recognizes these concerns and states, "While some AC manufacturers and stakeholders have conveyed support for the 2023 compliance date, several stakeholders have requested that CARB delay the effective date for the 750 GWP limit for new AC equipment from January 1, 2023, to January 1, 2025."

We encourage the state to keep on the path toward the lower GWP option (as it regards AC equipment) but also propose that the state include AC equipment in its Refrigerant Management

Program (RMP), which presently requires facilities with refrigeration systems containing more than 50 pounds of high-GWP refrigerant to conduct and report periodic leak inspections; promptly repair leaks; and keep service records on site.

AC equipment accounts for a significant portion of installed capacity and ultimately emissions. If these systems are not included in future R3 management programs, then the state will 1) continue to have no visibility of the actual GHG impact from this class of equipment; and 2) remain unaware of the actual activity as it relates to maintenance and how that maintenance is impacting GHG emissions.

The Proposed Amendments as drafted do a great job of addressing all new air-conditioning equipment; however, there is no accountability to ensure the equipment is properly installed, and, if the state relies on suppliers to control inventory, then its goals may be undermined. An example would be the US efforts in 2010 to curb the installation of R-22 equipment, which led the industry to produce and sell “dry-ship” units in replacement of selling pre-charged equipment.

The sale of these “dry-ship” units allowed buyers to install R-22 well after the new install ban was put in place. The sellers were able to suggest to authorities that they sold them dry (without refrigerant) and that installation was beyond their control. It was accepted that neither the manufacturer nor the supplier had any control over the refrigerant that was installed. Installers claimed ignorance, and these dry units remained available for sale 6 years after the ban went into place.

Therefore, technically obsolete equipment continued to erode the buyer's trust in the market since they were buying new equipment that would not be serviceable after the production ban went into place. If the state is facing challenges from manufacturers, then we encourage the state to consider the gross value of the GHG emissions impact on each unit, rather than the limit on each material. The state could implement a total GWP allowable threshold for each appliance (example of 15,000 GWP) in this case.

For instance, a 10 LB appliance with R-410A (GWP 2088) would have a total installed GWP of 20,088. The same system with R-466A (788 GWP) would have an installed GWP of 7,088. Using this scenario, if the state set the limit for the installed allowable threshold at 15,000, it would offer the market flexibility on which product it charged and place the responsibility for which product is added with the installer and the owner/operator.

So as the state considers extending to 2025, then also please consider adding AC equipment to the R3 registry. We commend ARB on successfully implementing and managing the most well-developed prescriptive model for reducing refrigerant leak rates in the country.

The registry and reporting program that you manage has brought awareness to the refrigerant leak issue and driven reductions in the emission of refrigerants through improved management and oversight. The state has successfully used its authority to modify behavior by using a prescriptive approach to solve the emissions issues, and we hope the state continues to follow this path; however, one aspect of the suggested remedy for AC equipment companies may be beyond the scope or control of the state—that is, refrigerant reclaim.

More specifically, the amendments mention several times the potential reclaim offers for supplementing material availability in new equipment and an additional pathway to bridge the gap between 2023 and 2025. The problem is that reclaim is not an official AHRI designated material status. Reclaim is considered an act of taking used refrigerant from recovered status and returning it to virgin purity. AHRI manages the Reclaimed Refrigerant Certification Program to ensure that all recovered refrigerant is tested in accordance with their procedures and then the results are verified.

The program is very thorough but, when the material is finalized, there is no certification that the material was "recovered" only that it meets "virgin" quality standards. It is up to the reclaim company to verify the origin, and there is presently no AHRI program in place to provide guidance for how to track and manage refrigerants. In most cases, reclaim companies blend recovered material with similar virgin material. Also, the program is voluntary, and it would require the state to oversee the source and blending processes for each supplier of material that came from a reclaim firm.

Presently, only the EPA receives unaudited and non-verified data from refrigerant reclaim companies about the quantities of gas they "process," but no additional information is available, required, or reported related to the sources. The State of California presently has a very effective and well-run registry and reporting process for refrigerant that has proven to be successful, and it needs to be broadened to include AC and process cooling because emissions from all systems are important and impactful.

The R3 reporting process already allows for AC and process cooling systems to be registered and reported, so it would be a simple issue of scale. Also, an effective AC registry and reporting program already exists in southern California and is managed by the South Coast Air Quality Management District (SCAQMD). Expanding AC registrations for 2023 would provide the state and SCAQMD teams time to prepare for the transition but also provide the state with a mechanism to manage and report on all systems that contain refrigerants.

In sum, we believe there is no way for the state to manage the transition without a registry and reporting process that impacts all equipment types equally. Each pound of gas emitted is equally impactful regardless of the source and, as such, should be treated that way. Regardless of the implementation date, the state has the resources to begin the process in 2023 and then use existing tools to monitor the transition and continue to drive innovation.

When the state was developing the R3 program more than a decade ago, the tools did not exist, but they do exist today. Each year, R3 has improved its logic, filing, and guidance processes. Trakref sees the state's interest in broadening its knowledge beyond refrigerants vented from refrigeration to include and control emissions of refrigerants from AC units as a logical evolutionary step driven by your success in managing refrigeration.

Thank you for the opportunity to comment.

Sincerely,

Ted Atwood  
President & CEO  
Trakref Inc.