



January 30, 2023

The Honorable Michael S. Regan
Administrator, U.S. Environmental Protection Agency

Subject: Proposed Rule – Phasedown of Hydrofluorocarbons: Restrictions on the Use of Certain Hydrofluorocarbons under Subsection (i) of the American Innovation and Manufacturing Act of 2020; Docket ID EPA-HQ-OAR-2021-0643

Dear Administrator Regan,

The Alliance for Automotive Innovation (Auto Innovators)¹ appreciates the opportunity to provide comments to the U.S. Environmental Protection Agency (EPA) on the Proposed Rule – Phasedown of Hydrofluorocarbons: Restrictions on the Use of Certain Hydrofluorocarbons Under Subsection (i) the American Innovation and Manufacturing Act of 2020 (Proposed Rule).² We thank EPA staff for their open dialogue and public engagement process as the agency works to implement the provisions of the AIM Act. While we appreciate the open dialogue to date, Auto Innovators has identified several areas of concern in the Proposed Rule that we would like to address: implementation timelines, export restrictions, labeling, and reporting requirements.

The regulations that EPA proposes to establish under the Technology Transitions Subsection (i) of the American Innovation and Manufacturing Act of 2020 (AIM Act) are intended to reduce hydrofluorocarbon (HFC) use in specific subsectors including motor vehicle air conditioning. We are committed to working cooperatively and constructively with EPA to establish appropriate timeframes and ensure vehicles developed and produced are compliant with the finalized regulations. Auto Innovators supported the AIM Act and engaged early with EPA to share our ongoing process for phasing out HFCs. Auto Innovators and our members fully support the goals of phasing out of HFC usage for our vehicles sold in the United States, and our member companies have been undergoing

¹ From the manufacturers producing most vehicles sold in the U.S. to autonomous vehicle innovators to equipment suppliers, battery producers and semiconductor makers – Alliance for Automotive Innovation represents the full auto industry, a sector supporting 10 million American jobs and five percent of the economy. Active in Washington, D.C. and all 50 states, the association is committed to a cleaner, safer and smarter personal transportation future. www.autosinnovate.org.

² 87 Fed. Reg. 76738 (December 15, 2022).

this transition for many years. Nonetheless, EPA must consider the fundamental principles of lead time and economics, which are critical to the feasibility of meeting EPA's technology transition goals.

Global Warming Potential (GWP) Limit Implementation Timeline

Light-Duty Vehicles

Auto Innovators members are phasing out the use of HFC-134a, and are instead adopting more environmentally responsible alternatives with a significantly lower global warming potential (GWP), like HFO-1234yf. Since 2019, almost 80% of new light-duty vehicles (LDVs) sold within the United States have motor vehicle air conditioning systems operating on HFO-1234yf.³

While the auto industry has made great strides in phasing out HFC refrigerants to date, there is still work that needs to be done before a complete phaseout becomes a reality. Automakers face an arduous process when transitioning from one air conditioning refrigerant to another. EPA's current proposed timing leaves little to no time to complete the phaseout for automakers whose plans extended beyond MY25, and more importantly, expediting a changeover plan becomes cost-prohibitive and infeasible without sufficient lead time. This challenge arises from automakers' need to account for engineering design changes, implementation through model redesigns, storage retrofitting, and supply challenges, to name a few.

Specifically, transitioning to HFO-1234yf requires redesigning vehicle air conditioning systems and large-scale retrofits to manufacturing facilities, including the installation of critical safety equipment such as fire suppression, ventilation, and storage. Additionally, the strained global supply chain has increased the lead-time for certain essential equipment, which can cause design and subsequent vehicle assembly delays. Changes to vehicle assembly plants can take up to two years to implement, considering the permitting and retrofitting processes.

A model year (MY) 2025 implementation date for new light-duty vehicles intended for sale in the U.S. may provide as little as three months of lead-time once EPA's rule is finalized,⁴ leaving insufficient time for the redesign of vehicles and retrofits to assembly plants. Therefore, Auto Innovators urges EPA to provide at least two years of lead-time from when a final rule is published, allowing automakers to phase out their HFC-134a use by the end of MY 2026. I.e., the rule should be effective MY 2027. The

³ EPA 2022 Automotive Trends Report, Section 5 Figures, Figure 5.6, *available at* <https://www.epa.gov/system/files/documents/2022-12/420r22029.pdf>

⁴ Model year 2025 may begin as early as January 2, 2024. The Unified Agenda indicates that this rulemaking has a targeted completion date of September, 2023.

number of vehicle models (and their associated production volume) still using HFC-134a is relatively low and continues to diminish with each year that passes. Thus, the additional lead-time recommended provides a similar environmental benefit, but at a more reasonable cost and timeframe. This will help ensure a smooth transition to lower GWP refrigerants, and accomplish EPA's goal of a complete phase-out of HFC-134a for light-duty vehicles in the United States.

Medium-Duty Vehicles

The timeline for medium-duty vehicles requires additional considerations beyond those of light-duty vehicles. The timelines proposed by EPA for medium-duty vehicles are significantly more challenging in this space.

The proposed MY 2026 implementation date for medium-duty vehicles would provide far less than the standard 4-year / 3 model-year stability and lead-time requirements found under CAA 42 U.S.C § 7521 (a)(3)(C)⁵ by the time the rule is finalized. Regardless as to whether or not these stability and lead-time requirements specifically apply to actions taken under Subsection (i) of the AIM Act, the principle behind them remains true and should be considered: medium- and heavy-duty vehicles have much longer design cycles than light-duty vehicles. regulations written to provide sufficient lead-time and stability to avoid interruptions to that design cycle are more efficient.

Additionally, the unique functionality and utility needs of medium-duty and heavy-duty vehicles should be considered during rule development, including the delayed phase-out compared to light-duty and servicing and repair needs. Transitioning to HFO-1234yf (or other alternative substances) requires fleet operators and customers to be prepared to service and maintain HFO-1234yf equipped vehicles, which often takes place in specialized facilities separate from those that service light-duty vehicles. Large fleet owners and operators may service vehicles in privately owned facilities rather than through traditional dealer networks, and these private facilities may be unprepared for the transition to HFO-1234yf in the 2-year timeframe proposed in the draft rule. This lack of synergy between facilities means that medium-duty vehicles would not be able to take advantage of advances made in preparedness for the changeover to HFO-1234yf in the light-duty space.

There are additional concerns related to retrofits to medium-duty manufacturing facilities that have not yet begun the transition. These facilities need to procure equipment, change systems, and prepare

⁵ 42 U.S.C § 7521(a)(3)(C) <https://www.govinfo.gov/content/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchapII-partA-sec7521.htm>

for the new refrigerant. Facility upgrades can take up to two years, assuming contracting, equipment, and supplies can be implemented/procured at an expedited rate.

Further, HFO-1234yf was only approved as a safe and acceptable refrigerant under the Significant New Alternatives Policy program for certain medium and heavy-duty applications for MVAC at the end of 2016,⁶ after four years of additional agency review following approval for light-duty applications.⁷ This additional time to approve systems has resulted in medium-duty implementation lagging behind light-duty. The expectation that medium-duty can meet the same timeline as light-duty is simply unrealistic. Thus, Auto Innovators requests that EPA provide at least three model years of lead time before the phase-out date for medium-duty vehicles applies. For example, if EPA finalizes this rule in calendar year (CY) 2023 as intended (aligning with MY 2024), then the medium-duty phase out of HFCs must be completed no sooner than MY 2028, and preferably MY 2029. If the rule takes longer than expected, and for vehicles that do not yet have an alternative substance approved, a later phase-out date would be needed.

Service Parts

Motor vehicle air conditioning systems have some components that use the regulated substances listed under the AIM Act for the function of the components and not as a refrigerant. Manufacture of such components will remain necessary after the applicable date proposed in NPRM for the repair of motor vehicle air conditioning systems. For example, many MVAC systems contain thermostatic expansion valves (TXV) which contain de minimis amounts of HFC-134a (~200mg). These parts are crucial to the service and repair of MVAC systems that were produced prior to the phaseout of HFC-134a.

Additionally, automakers are required under 49 U.S.C. § 30120(a) and (g) to remedy defects for a period of 15 years; therefore, having service and other warranty-related parts available is critical for compliance. Furthermore, there are also safety-related parts for defrosting and defogging which are required under NHTSA standard FMVSS No. 103 that must be available in dealer repair shops. Therefore, we request that service parts containing HFC-134a and related parts for servicing HVAC systems utilizing HFC-134a be exempted from the phaseout restrictions and aligned with the aforementioned NHTSA standards on service and warranty related parts.

⁶ 81 Fed. Reg. 86,778 (Dec. 1, 2016).

⁷ 77 Fed. Reg. 17,344 (Mar. 26, 2012).

Export Restrictions

EPA is proposing to set an export restriction deadline of CY 2026 for light duty vehicles. Given that design cycles and assembly plant retrofits are generally based on model year timing, we recommend a model year-based requirement. A calendar year requirement does not align with industry best practices and is more difficult to implement and track. Under any regulation, utilizing a calendar year timeline could result in unnecessary and disruptive mid-model year changes.

Additionally, the timeline laid out in this proposed rule does not come close to providing adequate lead-time to implement the required infrastructure updates and additional training needed at dealerships in all export countries. Updating infrastructure to support alternative refrigerants in certain countries that currently rely on HFCs such as HFC-134a for vehicle air conditioning systems requires significant time and resources. Furthermore, at a time when the Biden Administration and Congress are doubling down on industrial policies to increase manufacturing in the United States, including vehicles, it is surprising that EPA is setting a stringent timeline for exports that could inadvertently dissuade exports of U.S.-manufactured vehicles. In raising these concerns, Auto Innovators wants to clarify that we support the transition to lower global warming potential refrigerants and will be working to ensure the export of vehicles increases the use of low-GWP refrigerants, particularly for vehicles intended for markets that currently use the refrigerant. Yet, for markets that do not yet support the lower GWP refrigerants, it is premature to be overly restrictive with an export prohibition that could hinder the United States' domestic manufacturing goals.

As a result, Auto Innovators strongly opposes the proposed deadline for exports and requests further consideration of a more appropriate timeline. Specifically, we request that EPA refrain from finalizing any export restricts as part of this rulemaking. Exports to foreign countries should not be halted on an arbitrary deadline; rather, it is imperative that we account for variable lead-time for international dealerships and unintended consequences to domestic manufacturing. For example, countries in the Gulf Cooperation Council (including Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman)⁸ represented around seven percent of U.S. light-duty vehicle exports in 2021, but none of these countries have ratified that Kigali Protocol to date.⁹ Absent ratification of the protocol or separate action by the country to clearly identify plans to phase out HFCs, there is no guarantee that these countries will have vehicle markets prepared to support different refrigerants within EPA's

⁸ [New Vehicle Trade Data Visualization](https://www.trade.gov/data-visualization/new-vehicle-trade-data-visualization) - <https://www.trade.gov/data-visualization/new-vehicle-trade-data-visualization>

⁹ [U.S. Ratification of the Kigali Amendment - United States Department of State](https://www.state.gov/u-s-ratification-of-the-kigali-amendment/) - <https://www.state.gov/u-s-ratification-of-the-kigali-amendment/>

proposed timeframe. Therefore, we strongly oppose an export control deadline when it comes to automobiles and related parts containing HFC-134a.

Labeling Requirements

While we appreciate the intent of EPA's proposed labeling requirements, EPA's proposal offers minimal benefit for the changes it would require. Automakers already apply labels to MVAC systems to satisfy service and repair needs. Thus, in an effort to avoid duplicative labeling, Auto Innovators requests that the current Vehicle Manufacturing Label, as well as the SAE J-639¹⁰ label, be considered sufficient labeling under the final rule. In addition, SAE J639 defines a label using symbols which allows for a common label for all markets. This should be allowed in the final rule as opposed to requiring the label be in English.

Additionally, we request that the labeling of GWP not be required, since this information is not readily accessible to customers and does not provide value to service technicians. The most important aspect of the label is to ensure that service technicians repair/recharge MVACs with the correct refrigerant, and the current labels designed and applied to MVACs were designed to ensure this information is provided.

If the GWP is required, it should be identified as "GWP 1430" or "GWP 4" as opposed to the complete words "global warming potential" to ease compliance with local language label requirements for global products. GWP can be defined in the owner's manual in local languages as needed.

Reporting Requirements

Finally, with respect to the recordkeeping requirements outlined in this proposed rule for automotive products, we request that no other recordkeeping requirements be implemented outside what is already covered in Subpart QQ (40 CFR 98.436), in EPA GHG reporting, and in separate reporting requirements to the Office of Transportation and Air Quality for greenhouse gas compliance purposes. The creation of redundant reporting requirements creates great administrative burden on the auto industry and unnecessarily increases the cost of compliance.

¹⁰ [SAE J639 "Safety and Design Standards for Motor Vehicle Refrigerant Vapor Compression Systems"](https://www.sae.org/standards/content/J639_202011) - https://www.sae.org/standards/content/J639_202011

Automotive Refrigerator Systems

A very small number of vehicles include a refrigerator or similar device for the chilling of beverages that use HFCs. Given this is not a motor vehicle air conditioning system (i.e., equipment that uses refrigeration to cool the driver's or passenger's compartment),¹¹ Auto Innovators does not believe that refrigerator systems for chilling beverages or for similar purposes are included in this Proposed Rule. Such systems are not specifically listed in the proposed section 84.56, nor discussed in the preamble of the Proposed Rule. If EPA were to include them, it should specifically seek comment prior to such inclusion, and Auto Innovators would request similar lead-time as that discussed above for light-duty vehicles MVAC systems.

Conclusion

Auto Innovators has concerns about the proposals contained in this NPRM. Automakers have taken significant and proactive steps toward the goal of phasing out HFCs, and it is crucial that EPA work with us to ensure a smooth transition. Providing adequate lead-time to phase out HFC-134a in MVAC systems, and the easing of export restrictions, are necessary steps to achieve this Administration's goals of reducing emissions and strengthening domestic manufacturing. Additionally, reducing labeling and reporting requirements decreases burdens for both industry and regulators. Thank you for the opportunity to provide comments, and we look forward to our continued collective efforts.



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¹¹ See <https://www.epa.gov/mvac>.