

September 19th, 2023

Explanatory note: This input concerns only MAC applications identified in Annex XV of the restriction report and represents the views of Valeo Thermal System company. It does not include comments on other questions or sectors/uses of the questionnaire.

The following comments concern the **use sector “Mobile Air Conditioning (MAC)” identified in Annex XV of the restriction report**. Valeo Thermal System is developing and producing MAC systems in the EU for both the European as well as export market. These systems are designed specifically for a refrigerant intended in its later use in the vehicle. The most commonly used refrigerants in MAC is R1234yf containing PFAS. Valeo is therefore directly impacted by a potential restriction of refrigerants containing PFAS and would like to raise the following concerns after careful consideration of the restriction report:

1. **Need for consideration of established type approval process for vehicles and subsequent distinction between newly approved vehicle types and those already in production**
 - a. For any new vehicle type to be able to place on the market, manufacturers have to comply with specific type approval legislation. Type approval describes the process applied by national authorities to certify that a model of a vehicle meets all EU safety, environmental and conformity of production requirements before authorising it to be placed on the EU market.
 - b. Once this time-consuming process is finalized, the vehicle type can remain in production until the manufacturer makes technical changes to the vehicle, such as replacing the existing MAC with a newer version. Doing so, he has to again type approve the vehicle before being able to place it on the market.
 - c. The restriction report does not distinguish between type approved vehicles already in production and new models that first have to be type approved. As a result, all vehicles in production using PFAS-based refrigerants would have to be stopped after the transition/derogation period ends and re-engineered as well as type-approved again with MAC using PFAS-free refrigerants. This would add a significant additional burden on industry and could potentially overwhelm national type approval authorities.
 - d. **Instead, VALEO recommends to ECHA to apply the transition and derogation periods only to new types that still require type approval and exempt vehicle types already in production. This should be done both for vehicles with a mechanical as well as those with an electric compressor.**
2. **Derogation period for vehicles with a mechanical compressor should be aligned with the recently adopted CO2 fleet standards legislation for cars and vans.**

- a. The EU co-legislators only recently adopted a new Regulation amending Regulation (EU) 2019/631 as regards strengthening the CO2 emission performance standards for new passenger cars and new light commercial vehicles.
- b. The new regulation sets a -100% target for tailpipe CO2 emissions in 2035. As a result, sales of cars and vans with conventional internal combustion engines are expected to be reduced significantly as of this year. These vehicles typically use mechanical compressors for their MAC systems.
- c. The restriction proposal concluded that PFAS-free MAC alternatives are available for electrical and hybrid cars, but not necessarily for combustion engine vehicles with mechanical compressors.
- d. The 5-year derogation proposed by the restriction proposal would require vehicles with a mechanical compressor to stop production sometime in 2031, four years before the expected phase-out of internal combustion engines.
- e. Vehicle manufacturers would either have to develop completely new MAC systems for internal combustion engine for these remaining four years or stop their production before the intended phase-out date by the EU legislator. Both scenarios would result in high additional burden for industry and a loss of vehicle choice for European consumers.
- f. **To avoid this outcome, VALEO recommends extending the derogation period for vehicles with a mechanical compressor to 2035 to ensure consistency with EU legislation.**

3. Derogation for maintenance of existing vehicles with MAC using refrigerants containing PFAS is missing.

- a. The restriction proposal proposes a derogation of 12 years for maintenance of HVAC systems in buildings. For MAC, no such derogation is foreseen.
- b. Due to the lack of drop-in refrigerant alternatives, this would result in owners of existing vehicles on the market having little choice for their next MAC maintenance after the transition period ends to either:
 - i. Retrofit the vehicle at significant economic, environmental and opportunity costs
 - ii. Having to scrap their vehicle even well before its average lifetime expectancy and thus incurring significant economic losses
 - iii. Resort to illegal “black market” solutions for maintaining the MAC which creates legal repercussions for the owner and undermines the effectiveness of the PFAS restriction.
- c. All these unintended consequences have already been well identified in the restriction proposal.
- d. **To prevent them, VALEO recommends the introduction of a derogation for maintenance of existing MAC systems based on the average lifetime of a vehicle (12 years for cars and vans and 14 years for trucks)¹.**

¹ [Average age of the EU vehicle fleet, by country - ACEA - European Automobile Manufacturers' Association](#)

4. Differences between cars and commercial vehicles/trucks not recognised.

- a. The restriction proposal clearly points out that for trucks and buses the reliability/durability of PFAS-free alternatives have not yet been proven (p. 249).
- b. As a result, more time is required for developing and testing alternatives for these vehicle segments.
- c. Yet the restriction proposal does not differentiate its recommended transition/derogation periods between cars, vans, buses or trucks.
- d. Bus and truck manufacturers are therefore missing the required time to develop alternatives and could be forced to stop selling their vehicle types after the transition period ends, incurring significant economic losses and reducing consumer choice.
- e. **VALEO recommends establishing separate derogation periods of 14 years for commercial vehicles including trucks and buses.**



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