



EUROPEAN COMMISSION

## **Refrigerants used in mobile air condition systems (MAC) Questions & Answers 25.09.2014**

### ***The Commission opened the infringement procedure in January 2014; why did it decide to send now a reasoned opinion?***

The German government submitted its comments to the letter of formal notice in March, and these elements were duly analysed by the services. The reasoned opinion that was approved today (25 September) is a formal request to Germany to take the necessary actions to apply the MAC Directive.

The Commission has an obligation to act regarding the non-conformity of the law, so that the climate objectives of the Directive are achieved and the law is uniformly applied throughout the EU. A precedent that gives one private company the right to suspend application of EU law, on whatever grounds, cannot be accepted.

### ***Why is the Commission forcing Daimler to use a refrigerant R1234yf?***

The MAC Directive is technology neutral and does not prescribe any system or refrigerant. R1234yf was the refrigerant chosen by the industry to comply. The Commission remains neutral regarding these decisions. It has however the duty to ensure that the EU law is respected in the EU.

In other words, the Commission does not force or mandate the use of refrigerant R1234yf.

### ***Why is the Commission opposing the development, by Daimler and other companies, of CO<sub>2</sub> MAC systems that would both be safe, and comply with the Directive?***

The Commission has always supported a technology neutral approach. As long as the objectives of the Directive are met, the Commission has no preference about the technological solution chosen to meet them.

The MAC Directive (2006/40/EC) gradually bans the use of the current refrigerant R134a (from 2011 to the general ban on 1 January 2017). The Directive does not prescribe a specific refrigerant to be used to fulfil this obligation. This choice is of the sole responsibility of vehicle manufacturers.

For several years (since the 1990s), refrigerant R744 (CO<sub>2</sub>/Carbon Dioxide – GWP of 1) was studied in detail by the industry as a possibility to fulfil the MAC Directive objectives, and several development projects were undertaken by industry and the authorities (notably with important co-financing by the EU). Risk assessments and standardisation processes for the use of CO<sub>2</sub> as refrigerant in MAC were completed.

According to information available to the Commission, among the different options, in 2009 industry decided to use refrigerant R1234yf and only these MAC systems were developed. Therefore, the development efforts regarding MAC systems using CO<sub>2</sub> were suspended at that date.

Some vehicle manufacturers have recently announced that they decided to develop alternative systems for MAC using refrigerant R744 (CO<sub>2</sub>/Carbon Dioxide).

The Commission naturally has no opinion on this option, given that the only legally binding obligation of the manufacturers is for a gradual ban of the currently used refrigerant with high GWP – R134a (GWP of 1320).

Furthermore, all Member States have reassured the Commission that they are prepared to implement the referred general ban on the use of R134a in MAC systems at the target date of 1 January 2017.

***It is speculated that Daimler has proposed a compensation scheme to balance market conditions and impact on climate. Why did the Commission reject this approach?***

In the context of the dialogue between the Commission and the German authorities a compensation scheme for the non-conform vehicles that were put on the market by Daimler in the first 5 months of 2013 (before the extension of old type-approvals) has indeed been discussed. This compensation scheme would be a monetisation of the impact of this action on climate change and on the competition situation.

The analysis by the Commission's services is that this proposal was inadequate to respond to the situation for different reasons, related to the lack of legal basis, the scope, and the calculation method.

In fact the type-approval system in the EU does not foresee the possibility of monetary compensations by the manufacturers to compensate for non-conformity with the safety and emissions rules, for reasons that are obvious ("pay for disrespecting the law").

***Why is the Commission targeting Germany and not other Member States that have similar practices?***

The investigation of the German case is more advanced, given that it has been a German manufacturer to declare, already in September of 2012, that it would not comply with the legislation.

The Commission has questioned all Member States about their approach to the situation. Based on the information that was received from the Member States, the Commission requested detailed information, via a Pilot letter, to the authorities of three Member States that have informed of similar practices (extension of type approvals) by their respective type-approval authorities, requesting more information on this situation. These Member States have informed the Commission that in some cases these actions did not produce any effect (Luxembourg) and in others they were in the process of being corrected (United Kingdom and Belgium).

***How can the Commission overlook the safety concerns that have been raised (proved) by Daimler and other institutions?***

Regarding the safety aspects of the use of the refrigerant, the Commission has seriously considered the issue. There is a general consensus among stakeholders (with some

exceptions) that the risks of the use of the new gas were known since long years and that are technical measures that can be taken to mitigate these risks – as this is the case for other flammable and toxic substances existing in vehicles.

In September 2012, one manufacturer (Daimler) raised concerns about the safety of the use of this refrigerant in their vehicles. These concerns were challenged by other manufacturers. This situation led the German authority in charge of market surveillance, the KBA (Kraftfahrt Bundesamt) to proceed with its own testing. The KBA concluded, in October 2013, that there was no evidence of a serious risk on the use of this refrigerant that should entail the intervention of the authorities.

Given the importance of the safety issue, the Commission proposed to the Member-States, as a confidence-building measure, that the Joint Research Centre (JRC) reviews the KBA testing procedures. The review was performed by the JRC in an open and transparent way, involving all stakeholders. This procedure was exceptional, given that the responsibility regarding market surveillance in the EU falls under the remit of Member States.

In March 2014 the European Commission published a scientific review of the research regarding the safety aspects of the use of refrigerant R1234yf on MAC systems. The conclusion of this review was that, according to the existing legal framework on the general safety of products, there is no evidence of a serious risk in the use of this refrigerant on MAC systems under normal and foreseeable conditions of use.

The result of this analysis suggests that the automotive manufacturers have the means to mitigate the inherent risks of the use of the refrigerant, which are known and have been studied. The refrigerant is not the only fluid used in vehicles that is flammable or that may cause formation of dangerous emissions when burning, and automotive manufacturers, under their responsibility to provide for safe products, have found ways to mitigate these risks in a way that is consistent with a high level of protection for the safety and health of persons.

***In the Summer France decided to ban the selling of Daimler vehicles in its territory due to the non-application of the MAC Directive. What are the views of the Commission regarding this decision?***

On 26 July 2013 France has notified the Commission (under Article 29 of Framework Directive 2007/46/EC) that it was taking temporary safeguard measures regarding the registration on their territory of some vehicles, which could be in a situation of non-conformity with the MAC Directive.

In accordance with the procedure provided (in the same article), the Commission consulted the Member States and requested additional information to the parties involved. The Commission can confirm that it has received this additional information. The Commission will draw its conclusions based on this discussion.

On 27 August 2013 the French Superior Court (Conseil d'Etat) suspended the decision by the French authorities. On 5 May 2014 the Conseil d'Etat stated that the serious harm to the environment was not proved.

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The Commission took note of this decision by France and considered it in the procedure related to the referred notification.

This decision by the Conseil d'Etat does not interfere with the on-going infringement procedure regarding the implementation of the MAC Directive against Germany.

***Given that there is a legal disagreement regarding the functioning of the type-approval system between the Commission and some Member States, how does the Commission intend to act to avoid the repetition of such situations?***

The Commission considers that the current situation in the enforcement of the MAC Directive, and the risks that it entails for the functioning of the internal market have - in several aspects - underlined the need for revisiting the Framework Directive 2007/46/EC (Directive establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicle). The Commission will present a proposal in the course of 2014.