



European Commission

Enterprise and Industry  
Directorate-General

# The Regulatory Approach to MACs in the European Union

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Agnieszka Kozakiewicz

Automotive Industry Unit (F1)

Enterprise and Industry Directorate-General

European Commission

# MACs – regulatory acts

## 3 legal acts

- 1) **Directive 2006/40/EC** relating to emissions from air-conditioning systems in motor vehicles
- 2) **Commission Regulation (EC) No 706/2007** laying down administrative provisions for the EC type-approval of vehicles, and a harmonised test for measuring leakages from certain air conditioning systems
- 3) **Commission Directive 2007/37/EC** amending Annexes I and III to Council Directive 70/156/EEC

# MACs – control of leakage

## **1<sup>st</sup> STEP**

Control of leakage of certain fluorinated greenhouse gases with a global warming potential (GWP) > 150 in MACs

MANDATORY as from:

**21 June 2008** for new types of vehicles

**21 June 2009** for all new vehicles

# MACs – phase-out of certain MACs

## **2<sup>nd</sup> STEP**

The prohibition of MACs using F-Gases with GWP>150

as from:

**1 January 2011 for new types of vehicles**

**1 January 2017 for all new vehicles**

## MACs – dates

- Dates for the control of leakage (2008/2009) and for the phase-out of MACs using F-Gases with GWP>150 (2011/2017) are set in the legislation adopted by the European Parliament and the Council and therefore existing binding law
- Sole power of launching legal amendments lies with the European Commission (“right of initiative”)
- The European Commission has no intention to propose a change of these dates

# Training programmes for personnel

Regulation (EC) No 842/2006

- F-gases (also in mobile equipment) shall, to the extent that it is technically feasible and does not entail disproportionate cost, be recovered by appropriately qualified personnel, to ensure their recycling, reclamation or destruction
- Rules on appropriate qualification of personnel recovering F-gases from MACs established by Commission Regulation (EC) No 307/2008 of 2 April 2008
  - Minimum requirements for training programmes of personnel
  - Conditions for mutual recognition



# CO<sub>2</sub> Communication

## Communication from the Commission (7.02.2007) on the review of the Community Strategy to reduce CO<sub>2</sub> emissions from cars

Average new car fleet will have to reduce emissions to no more than **130 g/km** CO<sub>2</sub> through powertrain technology (that is relevant for emissions on the test cycle)

Additional **10 g/km** by other technological improvements and increased use of bio-fuels

These **complementary measures** include efficiency improvements for certain vehicle aspects with a high impact on CO<sub>2</sub> emissions:

- **Efficiency requirements for air-conditioning systems**
- Tyre pressure monitoring systems
- Low rolling resistance tyres
- Gear shift indicators
- Mandatory fuel efficiency targets for light commercial vehicles (vans)



# CO<sub>2</sub> Strategy

## 1<sup>st</sup> step

- Proposal adopted by the Commission on 19 December 2007
- The proposed Regulation implements part of the integrated approach by establishing emission performance standards for new passenger cars

## Next steps

- Complementary measures



# MACs fuel efficiency

## Public Consultation

Public consultation on future regulation addressing reduction of CO<sub>2</sub> emissions of light-duty vehicles by more efficient **MAC** equipment

**The MAC part of the consultation focuses on:**

Test procedure – physical and virtual testing

- Limit values for **MACs** efficiency
- The enforcement of the legislation to attain the reduction of the **10g/km** of CO<sub>2</sub> emission target by different administrative measures

**The consultation addresses also the issues of:**

- Gear Shift Indicators
- Safety regulation of **MAC** equipment

# Public Consultation Responses

- The public consultation was opened from 28 March 2008 to 21 May 2008
- 13 responses have been received: 2 from Member States authorities, 3 from industry associations and 8 from companies and individuals (to be published soon on our webpage)
- The issues are under investigation by the Commission services

# REACH Regulation

- Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) 1907/2006 of 18 December 2006
- Consolidates and modernises existing legal requirements in the EU
- CO<sub>2</sub> (CAS No 124-38-9) exempted (in Annex 4) as its behaviour is well known
- HFO-1234yf notified under old legal requirements and thus will be considered registered
- Main principle of REACH: if registered you may use the chemical, if not registered, it cannot be placed on the EU market
- Additional requirements, e.g.
  - Manufacturers provide information in Safety Data Sheets to the users of chemicals
  - Classification and labelling of chemicals also regulated
    - e.g. flammability etc...
  - Also, if chemical is considered to be of concern, Member States (or the Chemicals Agency ECHA, if the Commission so requests) may propose that the use of the chemical is restricted based on Title VIII of the Regulation



Thank you!

Thank you for your attention!

[http://ec.europa.eu/enterprise/automotive/pagesbackground/pollutant\\_emission/index.htm#macs](http://ec.europa.eu/enterprise/automotive/pagesbackground/pollutant_emission/index.htm#macs)