

**EXPLANATORY MEMORANDUM TO
THE ROAD VEHICLES (CONSTRUCTION AND USE)
(AMENDMENT) (NO. 3) REGULATIONS 2009**

SI 2009 No. 2196

1. This explanatory memorandum has been prepared by the Department for Transport and is laid before Parliament by Command of Her Majesty.

2. Description

- 2.1. These Regulations implement Articles 6.1 and 6.2 of Directive 2006/40/EC, which prohibit the retrofitting of vehicle air conditioning systems designed to contain refrigerants with a high global warming potential (GWP) to cars and small vans, and the refilling of air conditioning systems with such refrigerants.

3. Matters of special interest to the Joint Committee on Statutory Instruments

- 3.1 None

4. Legislative Context

- 4.1. Directive 2006/40/EC specifies controls on fluorinated gases (f-gases) used in vehicle air conditioning systems, generally referred to as mobile air conditioning systems or MACs, by banning the most environmentally destructive f-gases used in such equipment.
- 4.2. The Directive applies to passenger vehicles with up to 9 seats and to light goods vehicles or car-derived vans up to 1304 kg reference mass (unladen weight). It prohibits use of high GWP f-gases in new vehicle MACs and also introduces controls on retrofitting, refilling and servicing of these systems. The requirements for new vehicles apply from 1st January 2011 for new type approvals and 1st January 2017 for all vehicles registered and have already been transposed in type approval regulations. These regulations implement the retrofit and refilling requirements, the dates of which are aligned with the type approval dates.
- 4.3. Article 6.1 of the Directive requires that MACs designed to contain f-gases with a high GWP shall not be retrofitted to vehicles type approved from 1 January 2011 and to any vehicle registered from 1 January 2017.
- 4.4 Article 6.2 of the Directive requires that MACs fitted to vehicles type approved on or after 1 January 2011, and to all vehicles registered from 1 January 2017, shall not be refilled with f-gases with a high GWP. The refilling of MACs containing high GWP gases and fitted to vehicles before the latter date is exempted from these requirements.
- 4.5. These Regulations implement these requirements of the Directive by further amending the Road Vehicles (Construction and Use) Regulations 1986, as

amended (the “1986 Regulations”), and are made under powers conferred by section 41(1), (2) and (5) of the Road Traffic Act 1988.

- 4.6 The Regulations insert a new Regulation 61B into the 1986 Regulations.
- 4.7. Regulation 61B(3) and (4) implement the retrofitting requirements of the Directive. Retrofitting in this context meaning to fit a MAC to a vehicle after it has been type approved and/or entered into service from the dates specified above.
- 4.8. Regulations 61B(5) and (6) implement the refilling requirements of the Directive. The effect of this will be to make it illegal for a vehicle which is subject to the regulations to be fitted with a MAC containing high GWP f-gases.
- 4.9. Regulation 61B(7) exempts from paragraph (5) certain vehicles, where the prerequisites in road traffic law¹ for type approval did not prevent the vehicle from being fitted with a MAC containing high GWP f-gases. These would include, for instance, vehicles which have been approved under the “small series” or “low volume” provisions in road traffic law and vehicles designed and constructed for use by the armed services or emergency services.
- 4.10. Regulations 61B(8) and (9) similarly exempt from paragraph (6) certain vehicles, where the prerequisites in road traffic law² for registration or road use did not prevent the vehicle from being fitted with a MAC containing high GWP f-gases.
- 4.11. Regulations 61B (10) exempts from paragraph (6) vehicles which were fitted with a MAC containing high GWP f-gases before 2017. This exemption gives effect to the proviso in the latter part of Article 6(2) of the Directive.
- 4.12. Regulation 6(3) of the Regulations exempts vehicles which have been subject to Single Vehicle Approval or Individual Vehicle Approval from the requirements of paragraphs (5) and (6). This will enable the MACs of such vehicles to continue to be filled with the high GWP f-gases for which they are likely to have been designed.
- 4.13. Regulation 7 of the Regulations exempts “type approval end of series vehicles” first used prior to January 2018 from the requirements of Regulations 61B (5) and (6). These are vehicles which have been granted a 12 month derogation under road traffic legislation from meeting the entry into service f-gas requirements for MACs which come into effect from January 2017. Owners of such vehicles will thus not be prevented from refilling their MACs with the f-gases which they were designed to use.

¹ In addition to the provisions mentioned in regulation 61B (7)(b) these include the Motor Vehicles (Type Approval for Goods Vehicles) Regulations 1982, the Motor Vehicles (Type Approval) (Great Britain) Regulations 1984, the Motor Vehicles (Type Approval) Regulation (Northern Ireland) 1985 and the Motor Vehicles (Type Approval) Regulations (Northern Ireland) 2007.

² In addition to the provisions mentioned in regulations 61B(8)(b), 61B(9)(b) and Note 1 these include the Road Vehicles (Construction and Use) Regulations 1986 as amended but not including section 61B.

5. Territorial Extent and Application

5.1 This instrument applies to Great Britain.

6. European Convention on Human Rights

6.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

7. Policy background

- **What is being done and why**

7.1 The general aim of the Directive is to reduce emissions of f - gases used in MACS in cars and small vans.

7.2. F-gases were introduced for use as refrigerants in air conditioning systems in the 1990's to replace Chlorofluorocarbons or Hydrochlorofluorocarbons, which were seriously depleting the ozone layer. F-gases removed this risk and were low in toxicity and flammability.

7.3. Unfortunately, these advantages of f-gases are offset by their serious impact on global warming. Although they account for a relatively small proportion of total EU greenhouse gas emissions, their impact per kilogram emitted is vastly greater than CO₂ as they have a much greater global warming potential (GWP).³ The Government therefore considers that f-gases should only be used where other safe, technically feasible, cost-effective and more environmentally acceptable alternatives do not exist and that, through technological developments, they may eventually be able to be replaced in the applications where they are used. Also, while f-gas emissions reduction strategies should not undermine the Government's commitment to phase out ozone depleting substances f-gas emissions should not be allowed to rise unchecked. Action to reduce emission of f-gases is part of the wider efforts being undertaken in the UK and the EU to combat climate change.

7.4. The European Union has adopted two separate mandatory measures aimed at substantially reducing f-gas emissions. Firstly, a Regulation which restricts, and in some cases bans, certain f-gases in industrial, and certain consumer product applications. Secondly, Directive 2006/40/EC which introduces controls on the use of f-gases as refrigerants in MAC systems used in vehicles; the EU considered that provisions relating solely to air conditioning systems used in vehicles were best treated separately and included in the established European type approval system for new vehicles under directive 70/156/EEC, as amended.

7.5. There has been a rapid rise in f-gas emissions due to the growth of HFC-based air conditioning in new cars. UK research suggests that the percentage of new vehicles having MAC systems in the UK will reach 75% by 2010 as MACs

³ "Global Warming Potential" (GWP) expresses the climatic warming potential of a greenhouse gas relative to carbon dioxide. The standard GWP is calculated in terms of the 100 year warming potential of one kilogram of a gas relative to one kilogram of CO₂.

become a standard feature in vehicles. It is important therefore to ensure that MAC emissions do not rise unchecked. The measures contained in the Regulations form part of the package agreed by the EU to this end.

- **Consolidation**

7.6. These regulations introduce new controls by amendments to existing regulations.

8. Consultation outcome

8.1 No comments relevant to the terms of the Regulations, other than those generally welcoming the Regulations, were received in the public consultation exercise which was carried out between 21 April and 23 June 2009.

9. Guidance

9.1. The Directive and the proposed implementation measures have been in the public domain for some time and known to vehicle manufacturers. Suppliers of MACs for retrofitting and of refrigerants for refilling MACs will follow the choices made by vehicle manufacturers for economic reasons and to ensure that MACs continue to function as designed after they have been refilled. For these reasons no specific guidance is considered to be required.

10. Impact

10.1. Information on the cost of compliant retrofit MACs and the extent of retrofitting was not provided during the consultation exercise on the Regulations. However, it is not envisaged that there will be a significant increase in the cost of MACs or that retrofitting is common. It has also not been possible to estimate whether the cost of refrigerants for refilling will increase as manufacturers have not yet reached final decisions on the refrigerant they will use in vehicles from 2011.

10.2. An Impact Assessment has not therefore been prepared.

10.3. There is no impact on the public sector.

11. Regulating small business

11.1. The various exemptions for vehicles approved individually or as low volume or end of series production, as well as the exemptions for existing and older vehicles, are likely to benefit small business as well as individual vehicle owners.

12. Monitoring and review

12.1. The Department will monitor the general working of the regulations as part of its general responsibilities for vehicle environmental standards.

13. Contact

Tony Baker at the Department for Transport, Zone 1/34, Great Minster House, 76
Marsham Street, London SW1P 4DR. Tel 020 7944 2063 E
mail:TonyT.Baker@dft.gsi.gov.uk

TRANSPOSITION NOTE

THE ROAD VEHICLES (CONSTRUCTION AND USE) REGULATIONS (AMENDMENT) (NO.3) REGULATIONS 2009

1. For the purpose of this note:-

"Directive 2006/40/EC" means Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to emissions from air conditioning systems in motor vehicles and amending Directive 70/156/EEC.

"The 1986 Regulations" means The Road Vehicles (Construction and Use) Regulations 1986 (S.I 1986 No 1078) as amended.

"Global Warming Potential" (GWP) means the climatic warming potential of a fluorinated greenhouse gas relative to that to carbon dioxide.

"Fluorinated Greenhouse Gases" means hydrofluorcarbons, perfluorocarbons and sulphur hexafluoride as referred to in Annex A of the Kyoto Protocol and preparations containing those substances, but excluding substances controlled under Regulation (EC) 2037/2000 of the European Parliament and of the Council of 20 June 2000 on substances that deplete the ozone layer.

"Vehicle" means passenger vehicles of no more than 9 seats and light goods vehicles with a reference (unladen) weight of 1305 Kg or less.

2. These Regulations do what is necessary to implement Articles 6.1 and 6.2 of Directive 2006/40/EC.

Directive 2006/40/EC			
Article	Objectives	Implementation	Responsibility
Article 6.1	<p>This provision requires that, with effect from 1 January 2011, air- conditioning systems designed to contain fluorinated greenhouse gases with a global warming potential higher than 150 shall not be retrofitted to vehicles type approved from that date.</p> <p>With effect from 1 January 2017, such air conditioning systems shall not be retrofitted to any vehicles.</p>	<p>This provision is implemented by paragraphs (3) and (4) of regulation 61B, as inserted in the 1986 regulations by regulation 4 of these Regulations.</p>	The Secretary of State
Article 6.2.	<p>This provision requires that air conditioning systems fitted to vehicles type approved on or after 1 January 2011, and to all vehicles first used on or after 1 January 2017, shall not be filled with fluorinated greenhouse gases with a global warming potential greater than 150.</p> <p>Refilling of air conditioning systems containing those gases which have been fitted to vehicle before 1 January 2017 are exempted from the requirements.</p>	<p>This provision is implemented by paragraphs (5) and (6) of Regulation 61B as inserted in the 1986 Regulations by regulation 4 of these Regulations.</p> <p>This provision is implemented by paragraph (10) of Regulation 61B as inserted in the 1986 Regulations by regulation 4 of these Regulations.</p>	