



**EUROPEAN COMMISSION**  
 DIRECTORATE-GENERAL  
 ENVIRONMENT  
 Directorate C - Industry  
 ENV.C - Director

Brussels, 20 OCT. 2010  
 DG ENV. C3 Ares (2010)

**NOTE TO MS GEORGETTE LALIS**  
**DIRECTOR, (ENTR D)**

**Subject: Future approach on emissions from motor vehicles**

*Dear Georgette,*

Thank you for your note of 8 October (Ares 676803) and your suggestions on how we proceed together to improve air quality by reducing emissions from motor vehicles particularly under conditions of real world driving.

Your note was very timely given the current difficulty experienced by the Member States in complying with air quality limit values for particulate matter (PM<sub>10</sub>) and nitrogen dioxide and the increasing frequency with which the Member States are calling into question the efficacy of the vehicle emissions legislation as a reason for their non-compliance. Therefore, we very much support the idea to establish a "road map" of actions to tackle emissions from road vehicles following a stakeholder workshop later in November.

Following discussions between our respective services at a meeting on 13 October, I believe that the actions described in the attached annex should be discussed at the stakeholder workshop and ultimately could form key elements of a jointly agreed road map.

The timing of these measures is of particular importance to us. There is a possibility for the Member States to obtain an extension of the deadline for compliance with the air quality value for nitrogen dioxide until 31 December 2014 at the latest and indeed it is a condition of obtaining a time extension that compliance is achieved by the extended deadline. Infringement proceedings are likely to follow any non-compliance with air quality limits unless a time extension is obtained. As such there is a specific time window over the next 3 years or so within which the Member States must act to improve air quality and it is important for the Commission to be seen to assist the Member States during this period.

Finally, we will need to reflect further on how best to present and promote the road map politically with our respective stakeholders. Perhaps the road map presents an opportunity

for Vice-President Tajani and Commissioner Potočnik to present a joint initiative at a later date once outstanding details are finalised.

I hope that our respective services can continue their growing and fruitful cooperation on these matters so that the road map can be finalised as shortly as possible after the stakeholder workshop. DG Environment remains ready and willing to assist with the workshop and other matters related to the preparation of the road map.

*Best regards,*



Soledad BLANCO

Copies.

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## **Annex**

### **Road map to reduce real world emissions from motor vehicles: possible actions**

**(1) Adoption into legislation of procedures to control the real world emissions of light duty vehicles.**

Measurements of off-cycle emissions of Euro 3, 4 and 5 diesel light duty vehicles show emissions of some pollutants many times higher than the regulated limits. A complementary test is, therefore, required at type approval ("in-service conformity") which compares the exhaust emissions measured under real world driving conditions against the regulated emissions limits. This does not require new technologies to be developed but will require the application of current technologies to those parts of a vehicle's operation which lie outside of the current test cycle.

This new test should be introduced as part of the measures to implement the Euro 6 stage of emissions limits for light duty vehicles (entering into force from September 2014). We believe that the JRC is currently developing test procedures for eventual use in a regulatory context and we hope that this work will deliver its expected results on time.

**(2) Retrofit of existing heavy duty vehicles (pre-EURO IV):**

Surprisingly, a major part of many public service fleets comprise vehicles of the EURO III class or earlier and so there are large potential benefits for air quality in retrofitting (effectively) these vehicles for example with SCRT systems which reduce emissions of particulate matter and nitrogen oxides (NO<sub>x</sub>).

Retrofit equipment suppliers complain of the lack of harmonized retrofit specifications which can guide public procurement processes and which, therefore, hinders the uptake of retrofits. Such a harmonised standard could also ensure a better emissions performance of installed retrofits (e.g. by specifying anti-tampering provisions).

A working group has been established under the auspices of the UN ECE global vehicle regulation agreements to develop retrofit standards for NO<sub>x</sub> and particulate matter. We understand that this group has two remits. The first is to develop regulations governing retrofit equipment that will bring emissions up to the limits specified by the EURO VI legislation. The second is to look at preparing guidelines for retrofit systems that deliver slightly inferior emissions improvements in line with, say, the EURO V limit values. Whilst we see advantages in having this group cover both types of retrofit we would strongly urge that the guidelines be completed as a matter of urgency given the limited time available for the Member States to achieve compliance with air quality limits. We would suggest a finalisation of the guidelines by mid-2011 if at all possible and therefore we encourage DG ENTR to discuss this further with the chairman and secretariat of the relevant UNECE group.

(3) **Retrofit of EURO IV & V existing heavy duty vehicles:**

In some urban applications the start-stop nature of the vehicle's activity means that the exhaust gas temperature is insufficient for the selective catalytic reduction (SCR) after treatment device to function and so it is effectively switched off. The Netherlands complained about this at the March 2010 Environment Council. Retrofit equipment suppliers have informed us that a simple and small burner device can be fitted in the existing exhaust manifold which raises the exhaust gas temperature sufficiently for a less than 1% fuel efficiency penalty.

Information or guidance about this retrofit option needs to be made available to EURO V vehicle owners/operators in a way that ensures quality retrofits and without disqualifying vehicle warranties from original equipment manufacturers.

(4) **Revision of the "New European Drive Cycle" for type approval of vehicle emissions.**

The Commission is committed to revise the light duty test cycle by the end of 2012 both for climate gases and air pollutants so that test procedures better represent real world driving. We believe that a working group is active at the UNECE but the Commission has stated that if the UNECE does not deliver in a reasonable time then it will legislate itself. The timing of the development of a new test cycle is less critical for DG ENV so long as the in-service testing of real world emissions occurs in time for the entry into force of the EURO 6 emissions limits.

(5) **Regular and comprehensive real world emissions testing: Market surveillance**

Systematic testing of vehicles is needed to ensure that the type approval legislation is respected but also to provide information to those involved in air quality management that need accurate and up-to-date emissions estimates. DG ENTR together with the JRC should undertake such regular emissions testing and make this information available to the public/air quality management community. Moreover, there may be the potential to expand the extent of vehicle testing by aligning with the testing programmes undertaken by the competent authorities in the Member States.

In addition, we suggest that DG ENTR investigate the potential for simpler road side testing (using lasers or infra-red techniques) which is capable of measuring the emissions of many more vehicles and of correlating these measurements with measured air quality at particular locations.

(6) **Longer –term: Review of vehicle emissions legislation**

In the longer term, there should be an action to assess whether aspects of the vehicles emissions legislation need to be adapted to technical progress in order to reflect the state of the art in vehicle emissions control. This should address emission critical control hardware and procedures such as vehicle durability requirements, on-board diagnostic (OBD) detection thresholds, OBD applicability to the off-cycle and providing additional clarity in the legislation to prevent deployment of defeat devices and strategies