

N **AECC** Newsletter

Association for Emissions Control by Catalyst

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Affiliated to CEFIC

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INTERNATIONAL REGULATORY DEVELOPMENTS

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EUROPE

1. Rapporteur Lange proposes tightening Motorcycle Emissions Proposal

European Parliament rapporteur Bernd Lange has proposed several modifications to the EU proposal on motorcycle standards.

The report recommendations are summarised below:

- The 2003 limit values and test cycle are unchanged
- For 2006 Lange proposes to bring motorcycles over 150 cc in line with Stage 3 cars on the stage 3 car cycle. The proposals for mandatory limits are (commission proposed permissive limit values on the R40 warm test are in brackets):
CO 2.3 (2.0), HC 0.2 (0.3), NO_x 0.15 (0.1) g/km
- For tricycles and quadricycles Lange introduces 2006 limits and particulate matter (PM) limits for diesels, which were not included in the Commission proposal.

The table shows the limit values in Bernd Lange's proposal. Also included are:

- Members states are obligated to offer fiscal incentives
- Members states are to promote retrofitting with fiscal incentives
- On-board Diagnostics (OBD) from 2006 for >150 cc bikes
- 30 000 km/5 year durability from 2003; 50 000 km from 2006
- A clause banning cycle-beating
- Motorcycles to be subject to the same CO₂ reduction and labelling requirements as cars

- The Commission are to submit proposals by January 2002 on service life, in-use conformity and cycle beating and to report on the development of the new world test cycle (WMTC), and the necessary correlation factors, and progress on on-board measurement (OBM) and evaporative emissions.

	Class (cc)	Mass of carbon monoxide (CO)	Mass of hydro-carbons (HC)	Mass of oxides of nitrogen (NO _x)
		L ₁ (g/km)	L ₂ (g/km)	L ₃ (g/km)
Limit values for motorcycles (two-wheel) for type approval and conformity of production				
A (2003)	all	5,5	1,2	0,3
B (2006)	I ¹ (≤150)	2,0	0,8	0,2
	II ² (>150)	2,3 (2,0)	0,2 (0,3)	0,15 (0,1)
Limit values for tricycles and quadricycles for type approval and conformity of production (positive ignition)				
A (2003)	all	7,0	1,5	0,4
B (2006)	I ¹ (≤150)	5,0	1,2	0,3
	II ² (>150)	2,9	0,25	0,2
Limit values for tricycles and quadricycles for type approval and conformity of production (compression ignition)				
A (2003)	All	2,0	1,0	0,65
		Mass of PM L₄ (g/km)		0,10
B (2006)	I ¹ (≤150)	1,4	0,7	0,45
	II ² (>150)	0,80	0,15	0,65
		Mass of PM L₄ (g/km)		0,07

NB: In the Commission proposal the values in row B are permissive and applicable for tax incentives. Bernd Lange's proposals are mandatory in ***Bold and Italics***.

Footnotes:

1. With vehicles with a capacity ≤ 150 cc tested to the type I cycle the first two complete operating cycles during which no emissions are collected/measured are omitted [i.e. emissions measured from start of test.]
2. The values, indicated in line B II, for vehicles with a capacity greater than 150 cc are determined by the type I (car) test in accordance with directive 70/220/EEC as modified in directive 98/69/EC (appendix I, 5,3,1 and appendix III).

2. UK launches "Clean Up" Programme and "Green" Taxis

The UK Department of the Environment, Transport and the Regions has launched a £30 million "Clean Up" programme which will pay for urban vehicles, such as taxis, buses and trucks to be fitted with pollution cutting equipment such as catalytic converters and particulate traps.

The programme responds to recommendations from the Cleaner Vehicles Task Force that the Government tackle pollution from existing vehicles. Initiatives already supported include the fitment of particulate traps to urban buses, conversion of London taxis to run on gas and a trial of taxis fitted with catalytic converters. Future developments may include fitting older cars in urban areas with catalytic converters. The programme will focus its activities on the areas with the greatest air quality problems, typically larger conurbations.

As an initial step, London's black cabs are

set to go "green" in a trial launched in central London by Environment and Transport Minister, Lord Whitty. A fleet of 12 cabs has been fitted with catalytic converters that reduce emissions of particulates by up to 25 per cent.

Over the next few months they will be monitored to see how clean and green they are under normal "stop - go" driving. If the trial is successful, it could be extended to support the fitment of catalysts to other black cabs in London and other major cities.

3. Romania to limit Diesel Fuel Sulphur content

Romania's government announced that it has decided to limit the sulphur content in diesel fuel sold across the country to cut pollution in line with national environment protection policies.

A cabinet statement said starting 2005, motorists in Romania could use only diesel fuel with sulphur below 0.05 percent. It said the currently sold diesel fuel with sulphur below 0.2 percent could be retailed until 2005.

NORTH AMERICA

4. EPA issues Final Rule regarding Heavy Duty Truck Emissions and Low Sulphur Diesel Fuel

EPA issued the final rule regarding tighter NOx and particulate standards for heavy duty trucks and low sulphur diesel fuel on Thursday 21 December. Key provisions are summarised below:

a. Low Sulphur Fuel requirements

As proposed, the maximum sulphur level in diesel fuel will be reduced to 15 ppm by 1 July 2006. Within each region of the country refiners and distributors will be allowed to produce and sell up to 20% of their fuel at

the current level (maximum of 500 ppm) to minimise any risk of supply disruptions; this exemption will expire by the end of 2009, by which time 100% of the fuel must meet the 15 ppm requirement. Small refiners, which sell approximately 5% of the diesel fuel across the country, are also allowed to delay producing the low sulphur fuel until 2010.

b. Heavy Duty Engine Emissions standards

As proposed, the particulate standard of 0.01 grams per brake-horsepower hour will go into effect on 100% of new heavy duty diesel engines in 2007. The proposed NO_x standard of 0.2 grams per brake-horsepower-hour will be phased in on a schedule that will require 50% to meet the 0.2 standard in each of model years 2007, 2008 and 2009 and then 100% in 2010.

With respect to PM, this new standard represents a 90 percent reduction for most heavy duty diesel engines from the current PM standard and is projected to require the addition of highly efficient PM traps to diesel engines, including those diesel engines used in urban buses; it is not expected to require the addition of any new hardware for gasoline engines.

With respect to NMHC and NO_x, these new standards represent significant reductions from the 2004 diesel engine standard; the new NO_x standard is projected to require the addition of a highly efficient NO_x emission control system to diesel engines that, with help from the PM trap, will need to be optimised to control NMHC emissions.

Supplemental Provisions for HD Diesel Engines

In addition to the new FTP standards for HD diesel engines, EPA is also finalizing supplemental emission standards to help ensure that HD diesel engines achieve the expected in-use emission reductions over a wide range of vehicle operation and a wide range of ambient conditions, not only the test cycle and conditions represented by the traditional FTP.

c. Incentives for Early Introduction of Clean Engines and Vehicles

The incentive programme permits manufacturers to take credit for diesel engines certified to this rule's final standards prior to the 2007 model year (prior to the 2008 model year for gasoline engines or vehicles) in exchange for making fewer diesel engines certified to these standards in or after the 2007 model year (2008 for gasoline engines or vehicles).

d. Costs

EPA projects that the significant environmental benefits of this programme will come at an average cost increase of about \$2000 to \$3200 per new vehicle in the near term and about \$1200 to \$1900 per new vehicle in the long term, depending on the vehicle size. In comparison, new vehicle prices today can range well over \$100 000 for larger heavy duty vehicles. EPA estimates that when fully implemented the sulphur reduction requirement will increase the cost of producing and distributing diesel fuel by about five cents per gallon.

ASIA - PACIFIC

5. Japan Air Quality Committee recommends accelerated standards

A report, "Future Policy for Motor Vehicle Exhaust Emission Reduction (Fourth Report)" was issued by the Air Quality Committee of the Central Environmental Council on 1 November. Upon completion of this report, the chairperson of the Central Environment Council submitted on the same day a recommendation to the Director-General of the Environment Agency.

The key points of the recommendation, which the Environment Agency is required to strengthen the standards in accordance with, are:

- Achievement of new long-term target for diesel-powered motor vehicles shortened by two years to 2005
- Reduction of target value for permissible limit of sulphur content of diesel fuel from current level (500ppm) to 50 ppm by end of year 2004
- Achievement of reduction target for special diesel-powered motor vehicles by year 2003 and achievement of revised target value of diesel smoke of 40% by the same time

Furthermore, it is scheduled that the Central Environment Council will continue its deliberations on "Future Policy for Motor Vehicle Exhaust Emission Reduction."

6. Tokyo continues to push hard on Diesels

The municipal assembly has now approved the rule dealing with diesel emissions in Tokyo. The main contents are:

1. Prohibition against driving diesel vehicles that do not satisfy Tokyo Metropolitan Government emission standards for PM (see Table below). This will essentially require existing vehicles to install diesel particulate filters (DPF).
2. Require an automobile management plan for the environment. This will require companies using 30 or more vehicles to submit an automobile management plan for the environment and to report the results. The plan includes reducing the excessive use of automobiles, substituting lower emission vehicles.
3. Require automobile dealers to prepare information that explains to car purchasers the environmental performance information of the car including the state of emission, noise.
4. Require drivers to stop idling engines when parking and stopping the cars.
5. Require large companies using 200 or more vehicles to introduce lower emission vehicles such as CNG for more than 5% of total vehicles.
6. Prohibit the use of fuel containing heavy oil for on- and off-road use.

Vehicle type	Testing mode	Emission standards	
		From Oct 2003 to 2005	From 2005
Diesel Vehicles --GVW 1700kg or less	10-15 mode	0.08g/km	0.052g/km
Diesel Vehicles --GVW ≤2500kg but > 1799kg	10-15 mode	0.09g/km	0.06g/km
Diesel Vehicles --GVW more than 2500kg	Diesel 13 mode	0.25g/km	0.18g/km

FORTHCOMING CONFERENCES

“AVECC 2001” – The Asian Vehicle Emission Control Conference

30 January – 1 February 2001, Shangri-La
Hotel, Bangkok, Thailand

Details from: Rob Searles, AECC

The conference is a technical symposium, organised jointly by MECA and AECC, focusing on the challenge of reducing motor vehicle pollution in Asia. It will bring together experts from regulatory agencies, industry, and academia in Asia and around the world to share information and ideas on motor vehicle emission control technology and motor vehicle emission control programme implementation and operating experience.

“SAE 2001 World Congress”

5-8 March 2001, Detroit, Michigan

Details from www.sae.org

4 days on diesel emissions control and advanced catalytic converters & substrates, Pd and Pt technology and global legislation.

“Understanding the Health Effects of Particulate Air Pollution: Recent Advances and Outstanding Questions”

6-7 March 2001, European Parliament,
Brussels

Details from: Francine Marmenout, Health
Effects Institute, fmarmenout@healtheffects.org

A meeting of government, industry, science, NGOs and members of the general public in advance of the Commission's 2003 review of the Particulate Matter Directive. Organised by the World Health Organization and The Health Effects Institute, in cooperation with the European Commission and DG Environment.

“Additives 2001”

20-22 March 2001, Keble College, Oxford,
UK

Details from: Dr Mario Moustras, RSC,
Email: moustrasm@rsc.org

*International conference on chemistry of
automotive fuel and lubricant additives.*

“22nd International Vienna Motor Symposium”

26-27 April 2001, Vienna

Details from ÖMV, Tel: +431 588 01-
31503, Fax: +431 586 6294,
<http://ivkwww.tuwien.ac.at/oevk.html>

“Hart’s World Fuels Conference”

14-16 May 2001, Brussels

No details yet.

“2001 SAE International Fuels and Lubricants Conference”

7-9 May 2001, Orlando, Florida

Details from SAE, Email mjena@sae.org

“Well-to-Wheels 2001 - Investing in Advanced Propulsion Systems and Fueling Infrastructures”

May 2001, Nice

Details from: Intertech,
<mailto:jscheld@intertechusa.com> or
<http://www.intertechusa.com>.

*The conference will focus on new strategies
for developing ultra low emission, fuel-
efficient vehicles by assessing a number of
engine/fuel combinations in terms of cost,
energy efficiency, emissions and market
requirements.*

“EAEC European Automotive Congress – Europe & the Second Century of Auto-Mobility”

18-20 June 2001, Bratislava, Slovakia

Details from: SIA, Tel: +33 1 41 93 70, Fax: +33 1 41 93 79.

<http://www.saits.sjf.stuba.sk/>

6th Italian Seminar on Catalysts “Fundamentals and Application to Environmental Problems”

18-23 June 2001, Grado, Italy

Details on <http://www.dschi.univ.trieste.it/>

“Engine 2001 Conference”

19-21 June 2001, Messe Stuttgart

Details from <http://www.ukintpress.com/engine/expo> or from Mark Fenner on Tel: +44 1306 877411 or Email <mailto:expo@ukintpress.com>

Held in conjunction with “Engine Expo 2001”; sessions include “Emissions control: Euro IV and beyond – 21st century catalytic converters, NOx traps, particulate control....”

“SIMEA 2001”

26-28 June 2001, São Paulo, Brazil

Details from AEA Brazil, Email: simea@aea.org.br, Web: www.aea.org.br

Covers wide range of automotive topics including emissions

“Environmental Sustainability Conference”

12-14 November 2001, Graz, Austria

Details from: <http://www.sae.org/>