

LEGISLATIVE COUNCIL BRIEF

Air Pollution Control Ordinance (Cap.311)

**Air Pollution Control (Vehicle Design Standards) (Emission)
(Amendment) Regulation 2005**

INTRODUCTION

The Secretary for the Environmental, Transport and Works has made the Air Pollution Control (Vehicle Design Standards) (Emission) (Amendment) Regulation 2005, at the **Annex**, under section 43 of the Air Pollution Control Ordinance Chapter 311) to implement the Euro IV emission standards for newly registered light duty vehicles in tandem with the European Union (EU) and upgrade the emission standards for diesel private cars to the latest California standards.

BACKGROUND AND ARGUMENT

2. Motor vehicles are the major source of roadside air pollution in Hong Kong. To reduce vehicle emissions, we have a standing policy to introduce the most stringent motor vehicle fuel and emission standards when compliant fuels and vehicles can be made available to Hong Kong. We have implemented the Euro III vehicle emission standards since 2001. We have also made the Euro IV standards the statutory requirement for motor vehicle diesel since 1 April 2002 and have implemented the Euro IV standards for petrol since 1 January 2005.

3. From 1 January 2006, the EU will start tightening in phases its vehicle emission standards for new light duty vehicles (vehicles of 3.5 tonnes and below) to

the Euro IV level. A Euro IV light duty vehicle emits about 50% less pollutant than its Euro III counterpart. We propose to introduce the Euro IV emission standards in parallel with the EU to further reduce roadside air pollution.

4. As part of the strategy to reduce reliance on diesel vehicles, we have required newly registered diesel private cars to comply with the California emission standards since 1998. These emission standards were so stringent that very few diesel private car models could meet them. California upgraded the emission standards for diesel private cars in 2004. We thus propose to do likewise for the same purpose.

5. The EU is finalizing the Euro IV emission standards for vehicles over 3.5 tonnes. We shall seek Members' views on tightening the emission standards for these vehicles later.

THE AMENDMENT REGULATION

6. The Air Pollution Control (Vehicle Design Standards) (Emission) (Amendment) Regulation 2005 requires –

- (a) newly registered motor vehicles each of design weight up to 2.5 tonnes to comply with the Euro IV emission standards from 1 January 2006;
- (b) newly registered motor vehicles each of design weight over 2.5 tonnes but not more than 3.5 tonnes to comply with the Euro IV emission standards from 1 January 2007; and
- (c) newly registered diesel private cars to comply with the latest California emission standards from 1 January 2006.

Japan and US standards will be accepted whenever they are of equivalent stringency.

LEGISLATIVE TIMETABLE

7. We will publish the amendment Regulation in the Gazette on 14 October 2005 and table it at the Legislative Council for negative vetting on 19 October 2005. Subject to the negative vetting by the Legislative Council, the amendments will take effect on 1 January 2006.

BASIC LAW IMPLICATIONS AND HUMAN RIGHTS IMPLICATIONS

8. The proposal is in conformity with the Basic Law, including the provisions concerning human rights.

BINDING EFFECT OF THE LEGISLATION

9. The proposed amendments will not affect the current binding effect of the Air Pollution Control (Vehicle Design Standards)(Emission) Regulations.

FINANCIAL AND STAFF IMPLICATIONS

10. Implementation of the proposed amendments will not require any additional financial commitment from the Government. Additional staff is not required.

ECONOMIC IMPLICATIONS

11. There will be no economic implications as the proposed tightening of vehicle emission standards is not expected to have significant effects on vehicle prices.

ENVIRONMENTAL IMPLICATIONS

12. A Euro IV vehicle emits about 50% less pollutants than a Euro III one. The proposed amendments will help further improve roadside air quality.

CONSULTATION

13. We have consulted the Hong Kong Motor Traders Association, which comprises local representatives of major motor vehicle manufacturers, and the Right Hand Drive Motor Association (Hong Kong) Limited, which comprises representatives of parallel importers. Both organisations have no objection to the proposal. The proposed tightening of vehicle emission standards is not expected to have significant effects on vehicle prices.

14. We consulted the Panel on Environmental Affairs and the Advisory Council on the Environment on the proposal on 28 February 2005 and 14 March 2005 respectively. Both the Panel and the Council supported the proposal.

PUBLICITY

15. A press release will be issued on 14 October 2005. A spokesman will be available for answering media enquiries.

ENQUIRIES

16. For any enquiries, please contact Mr W C Mok, Principal Environmental Protection Officer at 2594 6301.

Environmental Protection Department

October 2005

**AIR POLLUTION CONTROL (VEHICLE DESIGN STANDARDS)
(EMISSION)(AMENDMENT) REGULATION 2005**

(Made by the Secretary for the Environment, Transport and Works under section 43 of the Air Pollution Control Ordinance (Cap. 311) after consultation with the Advisory Council on the Environment)

1. Commencement

This Regulation shall come into operation on 1 January 2006.

2. Vehicle design standards relating to smoke emission for motor vehicles registered on or after 1 April 1995

Regulation 4A(1) of the Air Pollution Control (Vehicle Design Standards)(Emission) Regulations (Cap. 311 sub. leg. J) is amended by repealing "Subject to regulation 9, every" and substituting "Every".

3. Vehicle design standards for certain motor vehicles

Regulation 7(1) is amended -

- (a) in paragraph (a)(v), by repealing "on or after 1 January 2002" and substituting "between 1 January 2002 and 31 December 2005 (both dates inclusive)";
- (b) in paragraph (b)(iii), by repealing "on or after 1 January 2001" and substituting "between 1 January 2001 and 31 December 2005 (both dates inclusive)";

- (c) in paragraph (ca)(ii), by repealing "on or after 1 August 2003" and substituting "between 1 August 2003 and 31 December 2005 (both dates inclusive)";
- (d) in paragraph (d)(v), by repealing "on or after 1 January 2002" and substituting "between 1 January 2002 and 31 December 2005 (both dates inclusive)";
- (e) in paragraph (da)(iv), by repealing "on or after 1 August 2003" and substituting "between 1 August 2003 and 31 December 2005 (both dates inclusive)";
- (f) in paragraph (e)(v), by repealing "on or after 1 January 2002" and substituting "between 1 January 2002 and 31 December 2005 (both dates inclusive)";
- (g) in paragraph (f)(v), by repealing "on or after 1 January 2002" and substituting "between 1 January 2002 and 31 December 2005 (both dates inclusive)";
- (h) in paragraph (fa)(iv), by repealing "on or after 1 August 2003" and substituting "between 1 August 2003 and 31 December 2005 (both dates inclusive)";
- (i) in paragraph (g)(v), by repealing "on or after 1 January 2002" and substituting "between 1 January 2002 and 31 December 2005 (both dates inclusive)";
- (j) in paragraph (h)(v), by repealing "on or after 1 January 2002" and substituting "between 1 January 2002 and 31 December 2005 (both dates inclusive)";
- (k) in paragraph (ha)(iv), by repealing "on or after 1 August 2003" and substituting "between 1 August 2003 and 31 December 2005 (both dates inclusive)";

- (1) in paragraph (i)(v), by repealing "on or after 1 January 2002" and substituting "between 1 January 2002 and 31 December 2005 (both dates inclusive)".

4. Regulation added

The following is added -

"7B. Vehicle design standards for certain motor vehicles registered on or after 1 January 2006

- (1) Subject to regulation 9 -

(a) every private car or taxi which -

- (i) is equipped with a positive-ignition engine;
- (ii) is constructed to operate on unleaded petrol only;
- (iii) has a design weight of not more than 2.5 tonnes; and
- (iv) is registered on or after 1 January 2006,

shall be so constructed that the emission from that private car or taxi conforms to the standards specified in paragraph (a), (b) or (c) of Schedule 12;

(b) every private car or taxi which -

- (i) is equipped with a positive-ignition engine;
- (ii) is constructed to operate on unleaded petrol only;

(iii) has a design weight of more than 2.5 tonnes; and

(iv) is registered between 1 January 2006 and 31 December 2006 (both dates inclusive),

shall be so constructed that the emission from that private car or taxi conforms to the standards specified in Part I(a), (b) or (c) of Schedule 10B;

(c) every private car or taxi which -

(i) is equipped with a positive-ignition engine;

(ii) is constructed to operate on unleaded petrol only;

(iii) has a design weight of more than 2.5 tonnes; and

(iv) is registered on or after 1 January 2007,

shall be so constructed that the emission from that private car or taxi conforms to the standards specified in paragraph (a), (b) or (c) of Schedule 12;

(d) every private car which -

(i) is equipped with a compression-ignition engine; and

(ii) is registered on or after 1 January 2006,

shall be so constructed that the emission from that private car conforms to the standards specified in paragraph (b) of Schedule 12;

(e) every taxi which -

- (i) is equipped with a positive-ignition engine;
- (ii) is constructed to operate on liquefied petroleum gas only; and
- (iii) is registered on or after 1 January 2006,

shall be so constructed that the emission from that taxi conforms to the standards specified in paragraph (a), (b) or (c) of Schedule 12;

(f) every goods vehicle or light bus which -

- (i) is equipped with a positive-ignition engine;
- (ii) is constructed to operate on unleaded petrol only;
- (iii) has a design weight of not more than 1.7 tonnes;
- (iv) has a reference mass of not more than 1 305 kg; and
- (v) is registered on or after 1 January 2006,

shall be so constructed that the emission from that goods vehicle or light bus conforms to

the standards specified in paragraph (a), (b) or (c) of Schedule 12;

- (g) every goods vehicle or light bus which -
 - (i) is equipped with a positive-ignition engine;
 - (ii) is constructed to operate on unleaded petrol only;
 - (iii) has a design weight of more than 1.7 tonnes but not more than 2.5 tonnes; and
 - (iv) is registered between 1 January 2006 and 31 December 2006 (both dates inclusive),

shall be so constructed that the emission from that goods vehicle or light bus conforms to the standards specified in Part IV(a), (b) or (c) of Schedule 10B;

- (h) every goods vehicle or light bus which -
 - (i) is equipped with a positive-ignition engine;
 - (ii) is constructed to operate on unleaded petrol only;
 - (iii) has a design weight of more than 2.5 tonnes but not more than 3.5 tonnes; and

- (iv) is registered between 1 January 2006 and 31 December 2006 (both dates inclusive),

shall be so constructed that the emission from that goods vehicle or light bus conforms to the standards specified in Part VI(a), (b) or (c) of Schedule 10B;

- (i) every goods vehicle or light bus which -
 - (i) is equipped with a positive-ignition engine;
 - (ii) is constructed to operate on unleaded petrol only;
 - (iii) has a design weight of more than 1.7 tonnes but not more than 3.5 tonnes; and
 - (iv) is registered on or after 1 January 2007,

shall be so constructed that the emission from that goods vehicle or light bus conforms to the standards specified in paragraph (a), (b) or (c) of Schedule 12;

- (j) every goods vehicle or light bus which -
 - (i) is equipped with a compression-ignition engine;
 - (ii) has a design weight of not more than 1.7 tonnes;

(iii) has a reference mass of not more than 1 305 kg; and

(iv) is registered on or after 1 January 2006,

shall be so constructed that the emission from that goods vehicle or light bus conforms to the standards specified in paragraph (a) or (b) of Schedule 12;

(k) every goods vehicle or light bus which -

(i) is equipped with a compression-ignition engine;

(ii) has a design weight of more than 1.7 tonnes but not more than 2.5 tonnes; and

(iii) is registered between 1 January 2006 and 31 December 2006 (both dates inclusive),

shall be so constructed that the emission from that goods vehicle or light bus conforms to the standards specified in Part V(a) or (b) of Schedule 10B;

(l) every goods vehicle or light bus which -

(i) is equipped with a compression-ignition engine;

(ii) has a design weight of more than 2.5 tonnes but not more than 3.5 tonnes; and

(iii) is registered between 1 January 2006 and 31 December 2006 (both dates inclusive),

shall be so constructed that the emission from that goods vehicle or light bus conforms to the standards specified in Part VII(a) or (b) of Schedule 10B;

(m) every goods vehicle or light bus which -

(i) is equipped with a compression-ignition engine;

(ii) has a design weight of more than 1.7 tonnes but not more than 3.5 tonnes; and

(iii) is registered on or after 1 January 2007,

shall be so constructed that the emission from that goods vehicle or light bus conforms to the standards specified in paragraph (a) or (b) of Schedule 12;

(n) every light bus which -

(i) is equipped with a positive-ignition engine;

(ii) is constructed to operate on liquefied petroleum gas only;

(iii) has a design weight of not more than 1.7 tonnes;

(iv) has a reference mass of not more than 1 305 kg; and

(v) is registered on or after 1 January 2006,

shall be so constructed that the emission from that light bus conforms to the standards specified in paragraph (a), (b) or (c) of Schedule 12;

(o) every light bus which -

(i) is equipped with a positive-ignition engine;

(ii) is constructed to operate on liquefied petroleum gas only;

(iii) has a design weight of more than 1.7 tonnes but not more than 2.5 tonnes; and

(iv) is registered between 1 January 2006 and 31 December 2006 (both dates inclusive),

shall be so constructed that the emission from that light bus conforms to the standards specified in Part II(a), (b) or (c) of Schedule 10C;

(p) every light bus which -

(i) is equipped with a positive-ignition engine;

- (ii) is constructed to operate on liquefied petroleum gas only;
- (iii) has a design weight of more than 2.5 tonnes but not more than 3.5 tonnes; and
- (iv) is registered between 1 January 2006 and 31 December 2006 (both dates inclusive),

shall be so constructed that the emission from that light bus conforms to the standards specified in Part III(a), (b) or (c) of Schedule 10C;

(q) every light bus which -

- (i) is equipped with a positive-ignition engine;
- (ii) is constructed to operate on liquefied petroleum gas only;
- (iii) has a design weight of more than 1.7 tonnes but not more than 3.5 tonnes; and
- (iv) is registered on or after 1 January 2007,

shall be so constructed that the emission from that light bus conforms to the standards specified in paragraph (a), (b) or (c) of Schedule 12.

(2) In this regulation, "private car" (私家車), "taxi" (的士), "goods vehicle" (貨車) and "light bus" (小型巴士) shall have the meanings assigned to them, respectively, in section 2 of the Road Traffic Ordinance (Cap. 374).".

5. Compliance with more stringent standards

Regulation 8 is amended -

- (a) by repealing "regulation 7" and substituting "regulations 4A, 7, 7B and 14";
- (b) by repealing "that regulation" wherever it appears and substituting "those regulations";
- (c) by repealing "applies" and substituting "apply".

6. Vehicles to which regulations 7, 7B and 14 do not apply

Regulation 9 is amended by repealing "Regulation 7" and substituting "Regulations 7, 7B and 14".

7. Certain motor vehicles to be equipped with on-board diagnostic system

Regulation 14 is amended -

- (a) in subregulation (1)(b) by repealing "as amended by Council Directive 98/69/EC, both made by the Council" and substituting "made by the Council as amended by its subsequent amendments up to and including amendments made by Commission Directive 2003/76/EC";

- (b) in subregulation (1)(c) by adding "Land, Infrastructure and" before "Transport";
- (c) in subregulation (3) by repealing "on or after 1 January 2002" and substituting "between 1 January 2002 and 31 December 2005 (both dates inclusive)";
- (d) by adding -

"(5) Every motor vehicle registered on or after 1 January 2006 under the provisions of regulation 7B(1)(a), (b), (d), (e), (f), (g), (h), (j) or (n) shall be fitted with an on-board diagnostic system so constructed that it conforms to the requirements specified in the specifications referred to in subregulation (1)(a), (b) or (c).

(6) Every motor vehicle registered on or after 1 January 2007 under the provisions of regulation 7B(1)(c), (i), (m) or (q) shall be fitted with an on-board diagnostic system so constructed that it conforms to the requirements specified in the specifications referred to in subregulation (1)(a), (b) or (c).".

8. Vehicle design standards for smoke emission from motor vehicles

Schedule 1 is amended by repealing "as amended by Council Directive 89/491/EEC, both made by the Council" and substituting

"made by the Council as amended by its subsequent amendments up to and including amendments made by Commission Directive 2005/21/EC".

9. Vehicle design standards (emission) for certain motor vehicles registered on or after 1 January 2002

Schedule 10B is amended by repealing "[reg. 7]" and substituting "[regs. 7 & 7B]".

10. Vehicle design standards (emission) for certain light buses registered on or after 1 August 2003

Schedule 10C is amended by repealing "[reg. 7]" and substituting "[regs. 7 & 7B]".

11. Schedule 12 added

The following is added -

"SCHEDULE 12 [reg. 7B]

VEHICLE DESIGN STANDARDS (EMISSION) FOR
CERTAIN MOTOR VEHICLES REGISTERED
ON OR AFTER 1 JANUARY 2006

(a) European Union Motor Vehicle Emission Standards

- (i) All the testing procedures, requirements and emission limits other than Type VI test as specified in Council Directive 70/220/EEC made by the Council as amended by its subsequent amendments up to and including amendments made by Commission Directive 2003/76/EC.

- (ii) The emission limit values for Type I test shall comply with the limit values set out in Row B of the Table in Section 5.3.1.4 of Annex I to Council Directive 70/220/EEC made by the Council as amended by its subsequent amendments up to and including amendments made by Commission Directive 2003/76/EC.
- (iii) All the type approval requirements as specified in Council Directive 70/156/EEC made by the Council as amended by its subsequent amendments up to and including amendments made by Commission Directive 2004/104/EC.

(b) United States of America Motor Vehicle Emission Standards

- (i) All the testing procedures, requirements and emission limits as specified in Title 13 of the California Code of Regulations of the United States of America.
- (ii) The emission limit values shall comply with California "LEV II" exhaust emission standards for 2004 and subsequent model vehicles.
- (iii) All the type approval requirements administered by the California Air Resources Board.

(c) Japan Motor Vehicle Emission Standards

- (i) All the testing procedures, requirements and emission limits as specified in the Safety Regulation for Road Vehicles (i.e. the Ministry of Transport Ordinance No. 67 of 28 July 1951) as amended by its subsequent amendments up to and including amendments made by Ministry of Land, Infrastructure and Transport Ordinances No. 49 of 6 April, 2005.
- (ii) The emission limit values shall comply with the limit values set out in the New Long-term Regulation enforced on 1 October 2005.
- (iii) All the type approval requirements administered by the Ministry of Land, Infrastructure and Transport of Japan."

Secretary for the Environment,
Transport and Works

2005

Explanatory Note

This Regulation amends the Air Pollution Control (Vehicle Design Standards)(Emission) Regulations (Cap. 311 sub. leg. J) to -

- (a) impose more stringent vehicle design standards in relation to the emission of air pollutants on certain motor vehicles which have a design weight of not more than 3.5 tonnes and are first registered on or after 1 January 2006 (section 4); and
- (b) require certain motor vehicles which are equipped with a positive-ignition engine or a compression-ignition engine, which have a design weight of not more than 3.5 tonnes and are first registered on or after 1 January 2006 to install an on-board diagnostic system (section 7).