

L.N. 121 of 1999

Air Pollution Control (Vehicle Design Standards) (Emission) (Amendment) Regulation 1999

(Made under section 43 of the Air Pollution Control Ordinance (Cap. 311) after consultation with the Advisory Council on the Environment)

1. Commencement

(1) This Regulation, other than section 3(m), shall come into operation on 1 July 1999.

(2) Section 3(m) shall come into operation on 1 October 1999.

2. Interpretation

Regulation 2 of the Air Pollution Control (Vehicle Design Standards) (Emission) Regulations (Cap. 311 sub. leg.) is amended by adding---

"evaporative emission" (蒸發排放物) means hydrocarbons emitted by evaporation from the fuel system of a motor vehicle which is equipped with a positive-ignition engine;"

3. Vehicle design standards for certain motor vehicles

Regulation 7(1) is amended---

(a) in paragraph (a)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified in Part I(a), (b) or (c) of Schedule 7;"

(b) in paragraph (b)(i), by repealing "Part II(a), (b) or (c) of Schedule 2" and substituting "paragraph (a), (b) or (c) of Schedule 2A";

(c) in paragraph (c)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified in Part II(a), (b) or (c) of Schedule 7;"

(d) in paragraph (d)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified

in Part III(a), (b) or (c) of Schedule 7;"

(e) in paragraph (e)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified in Part IV(a), (b) or (c) of Schedule 7;"

(f) in paragraph (f)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified in Part V(a), (b) or (c) of Schedule 7;"

(g) in paragraph (g)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified in Part VI(a), (b) or (c) of Schedule 7;"

(h) in paragraph (h)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified in Part VII(a), (b) or (c) of Schedule 7;"

(i) in paragraph (i)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified in Part VIII(a) or (b) of Schedule 7;"

(j) in paragraph (j)---

(i) in subparagraph (ii), by repealing "on or after 1 October 1998" and substituting "between 1 October 1998 and 30 June 1999 (both dates inclusive)";

(ii) by adding---

"(iii) if it is registered on or after 1 July 1999, to the standards specified in Part IX(a) or (b) of Schedule 7;"

(k) in paragraph (k)(ii), by repealing "Part X(a) or (b) of Schedule 5" and substituting "paragraph (a) or (b) of Schedule 6";

(l) in paragraph (l)(ii), by repealing "Part X(a) or (b) of Schedule 5." and substituting "paragraph (a) or (b) of Schedule 6";

(m) by adding---

"(m) every motor cycle registered on or after 1 October 1999 shall be so constructed that the emission from that motor cycle conforms to the standards specified in paragraph (a), (b) or (c) of Schedule 8;

(n) every motor tricycle registered on or after 1 October 1999 shall be so constructed that the emission from that motor tricycle conforms to the standards specified in Schedule 9."

4. Vehicles to which regulation 7 does not apply

Regulation 9(a) is repealed.

5. Schedule 2 amended

Schedule 2 is amended---

(a) in the heading, by repealing "on or after 1 January 1992" and substituting "between 1 January 1992 and 30 September 1998 (both dates inclusive)";

(b) in Part I---

(i) by repealing "不得超過" and substituting "物不得超過以下標準";

(ii) in paragraph (a)---

(A) by repealing "0.26 grams", "0.16 grams" and "0.25 grams" and substituting "0.26 gram", "0.16 gram" and "0.25 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(iii) in paragraph (b)---

(A) by repealing "0.25 grams" where it twice appears and substituting "0.25 gram";

(B) by repealing "按" and substituting "有關標準按";

(iv) in paragraph (c)---

(A) in subparagraph (i)---

(I) by repealing "0.50 grams" and substituting "0.50 gram";

(II) by repealing "按" and substituting "有關標準按";

(B) in subparagraph (ii)---

(I) by repealing "0.97 grams" and substituting "0.97 gram";

(II) by repealing "按" and substituting "有關標準按";

(c) in Part II---

(i) by repealing "不得超過" and substituting "物不得超過以下標準";

(ii) in paragraph (a)---

(A) by repealing "0.26 grams", "0.63 grams" and "0.12 grams" and substituting "0.26 gram", "0.63 gram" and "0.12 gram" respectively;

- (B) by repealing "按" and substituting "有關標準按";
 - (iii) in paragraph (b)---
- (A) by repealing "0.62 grams", "0.72 grams", "0.84 grams" and "0.34 grams" and substituting "0.62 gram", "0.72 gram", "0.84 gram" and "0.34 gram" respectively;
- (B) by repealing "按" and substituting "有關標準按";
 - (iv) in paragraph (c)---
- (A) in subparagraph (i)---
 - (I) by repealing "0.97 grams" and "0.14 grams" and substituting "0.97 gram" and "0.14 gram" respectively;
 - (II) by repealing "按" and substituting "有關標準按";
- (B) in subparagraph (ii)---
 - (I) by repealing "0.97 grams", "0.14 grams", "0.19 grams" and "0.25 grams" and substituting "0.97 gram", "0.14 gram", "0.19 gram" and "0.25 gram" respectively;
 - (II) by repealing "按" and substituting "有關標準按";
- (d) in Part III---
 - (i) by repealing "不得超過" and substituting "物不得超過以下標準";
 - (ii) in paragraph (a)---
- (A) by repealing "0.16 grams" and "0.25 grams" and substituting "0.16 gram" and "0.25 gram" respectively;
- (B) by repealing "按" and substituting "有關標準按";
 - (iii) in paragraph (b)---
- (A) by repealing "0.25 grams" where it twice appears and substituting "0.25 gram";
- (B) by repealing "按" and substituting "有關標準按";
 - (iv) in paragraph (c)---
- (A) by repealing "0.97 grams" and substituting "0.97 gram";
- (B) by repealing "按" and substituting "有關標準按";
- (e) in Part IV---
 - (i) by repealing "不得超過" and substituting "物不得超過以下標準";
 - (ii) in paragraph (a)---
- (A) by repealing "0.50 grams", "0.75 grams" and "0.16 grams" and substituting "0.50 gram", "0.75 gram" and "0.16 gram" respectively;
- (B) by repealing "按" and substituting "有關標準按";
 - (iii) in paragraph (b)---
- (A) by repealing "0.62 grams", "0.84 grams" and "0.34 grams" and substituting "0.62 gram", "0.84 gram" and "0.34 gram" respectively;
- (B) by repealing "按" and substituting "有關標準按";
 - (iv) in paragraph (c)---
- (A) by repealing "0.97 grams", "0.14 grams" and "0.19 grams" and substituting "0.97

gram", "0.14 gram" and "0.19 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(f) in Part V---

(i) by repealing "不得超過" and substituting "物不得超過以下標準";

(ii) in paragraph (a)---

(A) by repealing "0.20 grams" and "0.43 grams" and substituting "0.20 gram" and "0.43 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(iii) in paragraph (b)---

(A) by repealing "0.70 grams" and substituting "0.70 gram";

(B) by repealing "按" and substituting "有關標準按";

(iv) in paragraph (c)---

(A) by repealing "0.97 grams" and substituting "0.97 gram";

(B) by repealing "按" and substituting "有關標準按";

(g) in Part VI---

(i) by repealing "不得超過" and substituting "物不得超過以下標準";

(ii) in paragraph (a)---

(A) by repealing "0.50 grams" and "0.28 grams" and substituting "0.50 gram" and "0.28 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(iii) in paragraph (b)---

(A) by repealing "0.62 grams" and "0.43 grams" and substituting "0.62 gram" and "0.43 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(iv) in paragraph (c)---

(A) by repealing "0.97 grams", "0.14 grams", "0.19 grams" and "0.25 grams" and substituting "0.97 gram", "0.14 gram", "0.19 gram" and "0.25 gram" respectively;

(B) by repealing "按" and substituting "有關標準按".

6. Schedule added

The following is added---

"SCHEDULE 2A [reg. 7]

Vehicle Design Standards (Emission) for Private Cars
Equipped with Compression-Ignition Engines and
Registered between 1 January 1992 and
31 March 1998 (Both Dates Inclusive)

Emission shall not exceed---

(a) hydrocarbons 0.26 gram per kilometre

carbon monoxide 2.10 grams per kilometre
oxides of nitrogen 0.63 gram per kilometre

particulate emissions 0.12 gram per kilometre
as measured by the 1975 Federal Test Procedure administered by the Environmental
Protection Agency of the United States of America;

(b) hydrocarbons 0.62 gram per kilometre
carbon monoxide 2.70 grams per kilometre
oxides of nitrogen

---with a vehicle weight of not more than 1.265 tonnes 0.72 gram per kilometre

---with a vehicle weight of more than 1.265 tonnes 0.84 gram per kilometre

particulate emissions 0.34 gram per kilometre
as measured by the 10.15-mode operation administered by the Ministry of Transport
of Japan;

(c)

(i) for a vehicle designed to carry no more than 6 passengers including the driver,
or the maximum mass of which does not exceed 2 500 kilograms---

hydrocarbons and oxides of nitrogen combined 0.97 gram per kilometre

carbon monoxide 2.72 grams per kilometre

particulate emissions 0.14 gram per kilometre

as measured by the Type I test procedure specified in Council Directive 70/220/EEC
as amended by Council Directive 93/59/EEC, both made by the Council;

(ii) for a vehicle designed to carry more than 6 passengers including the
driver, or the maximum mass of which exceeds 2 500 kilograms---

hydrocarbons and oxides of nitrogen
combined

---with a reference mass of less than or equal to 1 250 kilograms 0.97 gram per kilometre

---with a reference mass of more than 1 250 kilograms but not more than
1 700 kilograms 1.4 grams per kilometre

---with a reference mass of more than 1 700 kilograms 1.7 grams per kilometre

carbon monoxide

---with a reference mass of less than 2.72 grams per kilometre

or equal to 1 250 kilograms

---with a reference mass of more than 5.17 grams per kilometre

1 250 kilograms but not more than

1 700 kilograms

---with a reference mass of more than 6.9 grams per kilometre

1 700 kilograms

particulate emissions

---with a reference mass of less than 0.14 gram per kilometre

or equal to 1 250 kilograms

---with a reference mass of more than 0.19 gram per kilometre

1 250 kilograms but not more than

1 700 kilograms

---with a reference mass of more than 0.25 gram per kilometre

1 700 kilograms

as measured by the Type I test procedure specified in Council Directive 70/220/EEC as amended by Council Directive 93/59/EEC, both made by the Council."

7. Schedule 3 amended

Schedule 3 is amended---

(a) in the heading, by repealing "on or after 1 April 1995" and substituting "between 1 April 1995 and 30 September 1998 (both dates inclusive)";

(b) in Part I---

(i) by repealing "不得超過" and substituting "物不得超過以下標準";

(ii) in paragraph (a)---

(A) by repealing "0.24 grams" and "0.68 grams" and substituting "0.24 gram" and "0.68 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(iii) in paragraph (b), by repealing "按" and substituting "有關標準按";

(iv) in paragraph (c)---

(A) by repealing "0.97 grams" and substituting "0.97 gram";

(B) by repealing "按" and substituting "有關標準按";

(c) in Part II---

(i) by repealing "不得超過" and substituting "物不得超過以下標準";

(ii) in paragraph (a)---

(A) by repealing "0.50 grams" and "0.28 grams" and substituting "0.50 gram" and "0.28 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(iii) in paragraph (b)---

(A) by repealing "0.97 grams", "0.14 grams", "0.19 grams" and "0.25 grams" and

substituting "0.97 gram", "0.14 gram", "0.19 gram" and "0.25 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(d) in Part III---

(i) by repealing "不得超過" and substituting "物不得超過以下標準";

(ii) in paragraphs (a) and (b), by repealing "按" and substituting "有關標準按";

(e) in Part IV---

(i) by repealing "不得超過" and substituting "物不得超過以下標準";

(ii) in paragraph (a)---

(A) by repealing "0.80 grams" and substituting "0.80 gram";

(B) by repealing "按" and substituting "有關標準按";

(iii) in paragraph (b)---

(A) by repealing "0.36 grams" and "0.61 grams" and substituting "0.36 gram" and "0.61 gram" respectively;

(B) by repealing "按" and substituting "有關標準按";

(iv) in paragraph (c)---

(A) by repealing "0.13 grams" and substituting "0.13 gram";

(B) by repealing "按" and substituting "有關標準按";

(v) in paragraph (d)---

(A) by repealing "0.25 grams" and "0.15 grams" and substituting "0.25 gram" and "0.15 gram" respectively;

(B) by repealing "按" and substituting "有關標準按".

8. Vehicle design standards (emission) for private cars equipped with compression-ignition

engines and registered on or after

1 April 1998

Schedule 4 is amended by repealing "0.16 grams", "0.25 grams" and "0.05 grams" and substituting "0.16 gram", "0.25 gram" and "0.05 gram" respectively.

9. Schedule 5 amended

Schedule 5 is amended---

(a) in the heading, by repealing "ON OR AFTER 1 OCTOBER 1998" and substituting "BETWEEN 1 OCTOBER 1998 AND 30 JUNE 1999 (BOTH DATES INCLUSIVE)";

(b) in Part I---

(i) in paragraph (a), by repealing "0.16 grams", "0.25 grams" and "0.05 grams" and substituting "0.16 gram", "0.25 gram" and "0.05 gram" respectively;

(ii) in paragraph (b), by repealing "0.25 grams" where it twice appears and substituting "0.25 gram";

(iii) in paragraph (c), by repealing "0.5 grams" where it twice appears and

substituting "0.5 gram";

(c) in Part II---

(i) in paragraph (a), by repealing "0.26 grams", "0.63 grams" and "0.12 grams" and substituting "0.26 gram", "0.63 gram" and "0.12 gram" respectively;

(ii) in paragraph (b), by repealing "0.62 grams", "0.72 grams", "0.84 grams" and "0.34 grams" and substituting "0.62 gram", "0.72 gram", "0.84 gram" and "0.34 gram" respectively;

(iii) in paragraph (c)---

(A) by repealing "0.97 grams" and "0.14 grams" and substituting "0.97 gram" and "0.14 gram" respectively;

(B) by repealing "對於" and substituting "就";

(C) by adding "而言" after "公斤的車輛";

(d) in Part III---

(i) in paragraph (a), by repealing "0.16 grams", "0.25 grams" and "0.05 grams" and substituting "0.16 gram", "0.25 gram" and "0.05 gram" respectively;

(ii) in paragraph (b), by repealing "0.25 grams" where it twice appears and substituting "0.25 gram";

(iii) in paragraph (c), by repealing "0.5 grams" and substituting "0.5 gram";

(e) in Part IV---

(i) in paragraph (a), by repealing "0.16 grams", "0.62 grams" and "0.05 grams" and substituting "0.16 gram", "0.62 gram" and "0.05 gram" respectively;

(ii) in paragraph (b), by repealing "0.7 grams", "0.9 grams", "1.0 grams", "0.08 grams", "0.10 grams" and "0.19 grams" and substituting "0.7 gram", "0.9 gram", "1.0 gram", "0.08 gram", "0.10 gram" and "0.19 gram" respectively;

(f) in Part V---

(i) in paragraph (a), by repealing "0.20 grams", "0.43 grams" and "0.06 grams" and substituting "0.20 gram", "0.43 gram" and "0.06 gram" respectively;

(ii) in paragraph (b), by repealing "0.70 grams" and substituting "0.70 gram";

(iii) in paragraph (c), by repealing "0.5 grams" and substituting "0.5 gram";

(g) in Part VI---

(i) in paragraph (a), by repealing "0.20 grams", "0.60 grams" and "0.06 grams" and substituting "0.20 gram", "0.60 gram" and "0.06 gram" respectively;

(ii) in paragraph (b), by repealing "0.7 grams", "0.9 grams", "1.0 grams", "0.08 grams", "0.10 grams", "0.19 grams" and "0.25 grams" and substituting "0.7 gram", "0.9 gram", "1.0 gram", "0.08 gram", "0.10 gram", "0.19 gram" and "0.25 gram" respectively;

(h) in Part VII---

(i) in paragraph (a), by repealing "0.24 grams", "0.68 grams" and "0.08 grams" and substituting "0.24 gram", "0.68 gram" and "0.08 gram" respectively;

(ii) in paragraph (c), by repealing "0.5 grams" and substituting "0.5 gram";
(i) in Part VIII---

(i) in paragraph (a), by repealing "0.24 grams", "0.95 grams" and "0.08 grams" and substituting "0.24 gram", "0.95 gram" and "0.08 gram" respectively;

(ii) in paragraph (b), by repealing "0.7 grams", "0.9 grams", "1.0 grams", "0.08 grams", "0.10 grams", "0.19 grams" and "0.25 grams" and substituting "0.7 gram", "0.9 gram", "1.0 gram", "0.08 gram", "0.10 gram", "0.19 gram" and "0.25 gram" respectively;

(j) by repealing Part X.

10. Schedules added

The following are added---

"SCHEDULE 6 [reg. 7]

Vehicle Design Standards (Emission) for Certain Motor
Vehicles Registered on or after 1 October 1998

Emission shall not exceed---

(a) hydrocarbons 1.74 grams per kilowatt-hour

carbon monoxide 20.8 grams per kilowatt-hour

oxides of nitrogen 5.36 grams per kilowatt-hour

particulate emissions 0.13 gram per kilowatt-hour

as measured by the Transient Test Procedure for heavy duty diesel engines administered by the Environmental Protection Agency of the United States of America;

(b) hydrocarbons 1.1 grams per kilowatt-hour

carbon monoxide 4.0 grams per kilowatt-hour

oxides of nitrogen 7.0 grams per kilowatt-hour

particulate emissions

---for engines having a swept volume per 0.25 gram per kilowatt-hour

cylinder of less than 700 cubic centimetres

and rated power speed of engine higher

than 3 000 revolutions per minute

---for engines having a swept volume 0.15 gram per kilowatt-hour

per cylinder equal to or more than

700 cubic centimetres, or rated power

speed of engine of not more than 3 000

revolutions per minute

as measured by the test procedure for diesel engines which are for use in vehicles specified in Council Directive 88/77/EEC as amended by Council Directive 91/542/EEC,

both made by the Council.

SCHEDULE 7 [reg. 7]

Vehicle Design Standards (Emission) for Certain Motor
Vehicles Registered on or after 1 July 1999

Part I

(a) Emission shall not exceed---

non-methane hydrocarbons 0.16 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.25 gram per kilometre

particulate emissions 0.05 gram per kilometre

as measured by the 1975 Federal Test Procedure administered by the Environmental Protection Agency of the United States of America; and evaporative emission shall not exceed 2.0 grams per test as measured by the Sealed Housing for Evaporative Emissions Determination procedure administered by the Environmental Protection Agency of the United States of America.

(b) Emission shall not exceed---

hydrocarbons 0.25 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.25 gram per kilometre

as measured by the 10.15-mode operation administered by the Ministry of Transport of Japan; and evaporative emission shall not exceed 2.0 grams per test as measured by the Japan Enclosure or Trap Method administered by the Ministry of Transport of Japan.

(c) Emission shall not exceed---

(i) for a vehicle designed to carry no more than 6 passengers including the driver, or the maximum mass of which does not exceed 2 500 kilograms---

hydrocarbons and oxides of nitrogen 0.5 gram per kilometre

combined

carbon monoxide 2.2 grams per kilometre

(ii) for a vehicle designed to carry more than 6 passengers including the driver, or the maximum mass of which exceeds 2 500 kilograms and the reference mass of which does not exceed 1 250 kilograms---

hydrocarbons and oxides of nitrogen 0.5 gram per kilometre

combined

carbon monoxide 2.2 grams per kilometre

(iii) for a vehicle designed to carry more than 6 passengers including the driver, or the maximum mass of which exceeds 2 500 kilograms and the reference mass

of which exceeds 1 250 kilograms and does not exceed 1 700 kilograms---
hydrocarbons and oxides of nitrogen 0.6 gram per kilometre
combined

carbon monoxide 4.0 grams per kilometre

(iv) for a vehicle designed to carry more than 6 passengers including the driver, or the maximum mass of which exceeds 2 500 kilograms and the reference mass of which exceeds 1 700 kilograms---

hydrocarbons and oxides of nitrogen 0.7 gram per kilometre
combined

carbon monoxide 5.0 grams per kilometre

as measured by the Type I test procedure specified in Council Directive 70/220/EEC as amended by Council Directive 96/69/EC, both made by the Council; and evaporative emission shall not exceed 2.0 grams per test as measured by the Type IV test procedure specified in Council Directive 91/441/EEC made by the Council.

Part II

(a) Emission shall not exceed---

non-methane hydrocarbons 0.16 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.62 gram per kilometre

particulate emissions 0.05 gram per kilometre

as measured by the 1975 Federal Test Procedure administered by the Environmental Protection Agency of the United States of America.

(b) Emission shall not exceed---

hydrocarbons 0.40 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.40 gram per kilometre

particulate emissions 0.08 gram per kilometre

as measured by the 10.15-mode operation administered by the Ministry of Transport of Japan.

(c) Emission shall not exceed---

(i) for a vehicle designed to carry no more than 6 passengers including the driver, or the maximum mass of which does not exceed 2 500 kilograms---

hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 0.7 gram per kilometre
type

---for engines of direct-injection type 0.9 gram per kilometre
carbon monoxide 1.0 gram per kilometre

particulate emissions

---for engines other than direct-injection 0.08 gram per kilometre
type

---for engines of direct-injection type 0.10 gram per kilometre

(ii) for a vehicle designed to carry more than 6 passengers including the driver, or the maximum mass of which exceeds 2 500 kilograms and the reference mass of which does not exceed 1 250 kilograms---

hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 0.7 gram per kilometre
type

---for engines of direct-injection type 0.9 gram per kilometre

carbon monoxide 1.0 gram per kilometre

particulate emissions

---for engines other than direct-injection 0.08 gram per kilometre
type

---for engines of direct-injection type 0.10 gram per kilometre

(iii) for a vehicle designed to carry more than 6 passengers including the driver, or the maximum mass of which exceeds 2 500 kilograms and the reference mass of which exceeds 1 250 kilograms and does not exceed 1 700 kilograms---

hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 1.0 gram per kilometre
type

---for engines of direct-injection type 1.3 grams per kilometre

carbon monoxide 1.25 grams per kilometre

particulate emissions

---for engines other than direct-injection 0.12 gram per kilometre
type

---for engines of direct-injection type 0.14 gram per kilometre

(iv) for a vehicle designed to carry more than 6 passengers including the driver, or the maximum mass of which exceeds 2 500 kilograms and the reference mass of which exceeds 1 700 kilograms---

hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 1.2 grams per kilometre
type

---for engines of direct-injection type 1.6 grams per kilometre

carbon monoxide 1.5 grams per kilometre

particulate emissions

---for engines other than direct-injection 0.17 gram per kilometre

type

---for engines of direct-injection type 0.20 gram per kilometre

as measured by the Type I test procedure specified in Council Directive 70/220/EEC

as amended by Council Directive 96/69/EC, both made by the Council.

Part III

(a) Emission shall not exceed---

non-methane hydrocarbons 0.16 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.25 gram per kilometre

particulate emissions 0.05 gram per kilometre

as measured by the 1975 Federal Test Procedure administered by the Environmental Protection Agency of the United States of America; and evaporative emission shall not exceed 2.5 grams per test as measured by the Sealed Housing for Evaporative Emissions Determination procedure administered by the Environmental Protection Agency of the United States of America.

(b) Emission shall not exceed---

hydrocarbons 0.25 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.25 gram per kilometre

as measured by the 10.15-mode operation administered by the Ministry of Transport of Japan; and evaporative emission shall not exceed 2.0 grams per test as measured by the Japan Enclosure or Trap Method administered by the Ministry of Transport of Japan.

(c) Emission shall not exceed---

(i) for a vehicle with a reference mass of not more than 1 250 kilograms---

hydrocarbons and oxides of nitrogen 0.5 gram per kilometre
combined

carbon monoxide 2.2 grams per kilometre

(ii) for a vehicle with a reference mass of more than 1 250 kilograms but not more than 1 700 kilograms---

hydrocarbons and oxides of nitrogen 0.6 gram per kilometre
combined

carbon monoxide 4.0 grams per kilometre

as measured by the Type I test procedure specified in Council Directive 70/220/EEC as amended by Council Directive 96/69/EC, both made by the Council; and evaporative

emission shall not exceed 2.0 grams per test as measured by the Type IV test procedure specified in Council Directive 91/441/EEC made by the Council.

Part IV

(a) Emission shall not exceed---

non-methane hydrocarbons 0.16 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.62 gram per kilometre

particulate emissions 0.05 gram per kilometre

as measured by the 1975 Federal Test Procedure administered by the Environmental Protection Agency of the United States of America.

(b) Emission shall not exceed---

hydrocarbons 0.40 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.40 gram per kilometre

particulate emissions 0.08 gram per kilometre

as measured by the 10.15-mode operation administered by the Ministry of Transport of Japan.

(c) Emission shall not exceed---

(i) for a vehicle with a reference mass of not more than 1 250 kilograms---

hydrocarbons and oxides of nitrogen

combined

---for engines other than direct-injection 0.7 gram per kilometre
type

---for engines of direct-injection type 0.9 gram per kilometre

carbon monoxide 1.0 gram per kilometre

particulate emissions

---for engines other than direct-injection 0.08 gram per kilometre
type

---for engines of direct-injection type 0.10 gram per kilometre

(ii) for a vehicle with a reference mass of more than 1 250 kilograms but not more than 1 700 kilograms---

hydrocarbons and oxides of nitrogen

combined

---for engines other than direct-injection 1.0 gram per kilometre
type

---for engines of direct-injection type 1.3 grams per kilometre

carbon monoxide 1.25 grams per kilometre

particulate emissions

---for engines other than direct-injection 0.12 gram per kilometre
type

---for engines of direct-injection type 0.14 gram per kilometre

as measured by the Type I test procedure specified in Council Directive 70/220/EEC
as amended by Council Directive 96/69/EC, both made by the Council.

Part V

(a) Emission shall not exceed---

non-methane hydrocarbons 0.20 gram per kilometre

carbon monoxide 2.73 grams per kilometre

oxides of nitrogen 0.43 gram per kilometre

particulate emissions 0.06 gram per kilometre

as measured by the 1975 Federal Test Procedure administered by the Environmental
Protection Agency of the United States of America; and evaporative emission shall
not exceed 2.5 grams per test as measured by the Sealed Housing for Evaporative
Emissions Determination procedure administered by the Environmental Protection
Agency of the United States of America.

(b) Emission shall not exceed---

hydrocarbons 2.10 grams per kilometre

carbon monoxide 13.0 grams per kilometre

oxides of nitrogen 0.40 gram per kilometre

as measured by the 10.15-mode operation administered by the Ministry of Transport
of Japan; and evaporative emission shall not exceed 2.0 grams per test as measured
by the Japan Enclosure or Trap Method administered by the Ministry of Transport of
Japan.

(c) Emission shall not exceed---

(i) for a vehicle with a reference mass of not more than 1 250 kilograms---

hydrocarbons and oxides of nitrogen 0.5 gram per kilometre

combined

carbon monoxide 2.2 grams per kilometre

(ii) for a vehicle with a reference mass of more than 1 250 kilograms but not
more than 1 700 kilograms---

hydrocarbons and oxides of nitrogen 0.6 gram per kilometre

combined

carbon monoxide 4.0 grams per kilometre

(iii) for a vehicle with a reference mass of more than 1 700 kilograms---

hydrocarbons and oxides of nitrogen 0.7 gram per kilometre

combined

carbon monoxide 5.0 grams per kilometre
as measured by the Type I test procedure specified in Council Directive 70/220/EEC
as amended by Council Directive 96/69/EC, both made by the Council; and evaporative
emission shall not exceed 2.0 grams per test as measured by the Type IV test procedure
specified in Council Directive 91/441/EEC made by the Council.

Part VI

(a) Emission shall not exceed---

non-methane hydrocarbons 0.20 gram per kilometre

carbon monoxide 2.73 grams per kilometre

oxides of nitrogen 0.60 gram per kilometre

particulate emissions 0.06 gram per kilometre

as measured by the 1975 Federal Test Procedure administered by the Environmental
Protection Agency of the United States of America.

(b) Emission shall not exceed---

hydrocarbons 0.40 gram per kilometre

carbon monoxide 2.10 grams per kilometre

oxides of nitrogen 0.70 gram per kilometre

particulate emissions 0.09 gram per kilometre

as measured by the 10.15-mode operation administered by the Ministry of Transport
of Japan.

(c) Emission shall not exceed---

(i) for a vehicle with a reference mass of not more than 1 250 kilograms---

hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 0.7 gram per kilometre
type

---for engines of direct-injection type 0.9 gram per kilometre

carbon monoxide 1.0 gram per kilometre

particulate emissions

---for engines other than direct-injection 0.08 gram per kilometre
type

---for engines of direct-injection type 0.10 gram per kilometre

(ii) for a vehicle with a reference mass of more than 1 250 kilograms but not
more than 1 700 kilograms---

hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 1.0 gram per kilometre
type

---for engines of direct-injection type 1.3 grams per kilometre
carbon monoxide 1.25 grams per kilometre
particulate emissions

---for engines other than direct-injection 0.12 gram per kilometre
type

---for engines of direct-injection type 0.14 gram per kilometre

(iii) for a vehicle with a reference mass of more than 1 700 kilograms---
hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 1.2 grams per kilometre
type

---for engines of direct-injection type 1.6 grams per kilometre
carbon monoxide 1.5 grams per kilometre
particulate emissions

---for engines other than direct-injection 0.17 gram per kilometre
type

---for engines of direct-injection type 0.20 gram per kilometre
as measured by the Type I test procedure specified in Council Directive 70/220/EEC
as amended by Council Directive 96/69/EC, both made by the Council.

Part VII

(a) Emission shall not exceed---

non-methane hydrocarbons 0.24 gram per kilometre
carbon monoxide 3.10 grams per kilometre
oxides of nitrogen 0.68 gram per kilometre
particulate emissions 0.08 gram per kilometre

as measured by the 1975 Federal Test Procedure administered by the Environmental
Protection Agency of the United States of America; and evaporative emission shall
not exceed 2.5 grams per test as measured by the Sealed Housing for Evaporative
Emissions Determination procedure administered by the Environmental Protection
Agency of the United States of America.

(b) Emission shall not exceed---

hydrocarbons 6.20 grams per kilowatt-hour
carbon monoxide 102 grams per kilowatt-hour
oxides of nitrogen 4.50 grams per kilowatt-hour

as measured by the 13-mode operation for heavy duty petrol-powered motor vehicles
administered by the Ministry of Transport of Japan; and evaporative emission shall
not exceed 2.0 grams per test as measured by the Japan Enclosure or Trap Method
administered by the Ministry of Transport of Japan.

(c) Emission shall not exceed---

(i) for a vehicle with a reference mass of not more than 1 250 kilograms---
hydrocarbons and oxides of nitrogen 0.5 gram per kilometre
combined

carbon monoxide 2.2 grams per kilometre

(ii) for a vehicle with a reference mass of more than 1 250 kilograms but not
more than 1 700 kilograms---

hydrocarbons and oxides of nitrogen 0.6 gram per kilometre
combined

carbon monoxide 4.0 grams per kilometre

(iii) for a vehicle with a reference mass of more than 1 700 kilograms---
hydrocarbons and oxides of nitrogen 0.7 gram per kilometre
combined

carbon monoxide 5.0 grams per kilometre

as measured by the Type I test procedure specified in Council Directive 70/220/EEC
as amended by Council Directive 96/69/EC, both made by the Council; and evaporative
emission shall not exceed 2.0 grams per test as measured by the Type IV test procedure
specified in Council Directive 91/441/EEC made by the Council.

Part VIII

(a) Emission shall not exceed---

non-methane hydrocarbons 0.24 gram per kilometre

carbon monoxide 3.10 grams per kilometre

oxides of nitrogen 0.95 gram per kilometre

particulate emissions 0.08 gram per kilometre

as measured by the 1975 Federal Test Procedure administered by the Environmental
Protection Agency of the United States of America.

(b) Emission shall not exceed---

(i) for a vehicle with a reference mass of not more than 1 250 kilograms---
hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 0.7 gram per kilometre
type

---for engines of direct-injection type 0.9 gram per kilometre
carbon monoxide 1.0 gram per kilometre

particulate emissions

---for engines other than direct-injection 0.08 gram per kilometre
type

---for engines of direct-injection type 0.10 gram per kilometre

(ii) for a vehicle with a reference mass of more than 1 250 kilograms but not more than 1 700 kilograms---

hydrocarbons and oxides of nitrogen
combined

---for engines other than direct-injection 1.0 gram per kilometre
type

---for engines of direct-injection type 1.3 grams per kilometre
carbon monoxide 1.25 grams per kilometre

particulate emissions

---for engines other than direct-injection 0.12 gram per kilometre
type

---for engines of direct-injection type 0.14 gram per kilometre

(iii) for a vehicle with a reference mass of more than 1 700 kilograms---
hydrocarbons and oxides of nitrogen

combined

---for engines other than direct-injection 1.2 grams per kilometre
type

---for engines of direct-injection type 1.6 grams per kilometre
carbon monoxide 1.5 grams per kilometre

particulate emissions

---for engines other than direct-injection 0.17 gram per kilometre
type

---for engines of direct-injection type 0.20 gram per kilometre

as measured by the Type I test procedure specified in Council Directive 70/220/EEC
as amended by Council Directive 96/69/EC, both made by the Council.

Part IX

(a) Emission shall not exceed---

hydrocarbons 2.55 grams per kilowatt-hour

carbon monoxide 49.7 grams per kilowatt-hour

oxides of nitrogen 5.36 grams per kilowatt-hour

as measured by the Transient Test Procedure for heavy duty Otto cycle engines
administered by the Environmental Protection Agency of the United States of America;
and evaporative emission shall not exceed 4.0 grams per test as measured by the Sealed
Housing for Evaporative Emissions Determination procedure administered by the
Environmental Protection Agency of the United States of America.

(b) Emission shall not exceed---

hydrocarbons 6.20 grams per kilowatt-hour

carbon monoxide 102 grams per kilowatt-hour

oxides of nitrogen 4.50 grams per kilowatt-hour as measured by the 13-mode operation for heavy duty petrol-powered motor vehicles administered by the Ministry of Transport of Japan; and evaporative emission shall not exceed 2.0 grams per test as measured by the Japan Enclosure or Trap Method administered by the Ministry of Transport of Japan.

SCHEDULE 8 [reg. 7]

Vehicle Design Standards (Emission) for Motor Cycles
Registered on or after 1 October 1999

Emission shall not exceed---

- (a) the emission standards as stated in section 86.410-80 of Title 40 of the Code of Federal Regulations of the United States of America as at the commencement of regulation 7(1)(m) of these regulations, and measured by the procedures specified in Subpart F of Part 86 of Title 40 of the Code as at that commencement, administered by the Environmental Protection Agency of the United States of America; or
- (b) the emission standards as stated in Article 31 of the Ministry of Transport Ordinance (i.e. the Ministry of Transport Ordinance No. 67 of 1951, as amended) of Japan as at the commencement of regulation 7(1)(m) of these regulations, and measured by the two-wheeled vehicle mode operation administered by the Ministry of Transport of Japan; or
- (c) the emission standards as stated in and measured by the Type I test procedure specified in Council Directive 97/24/EC made by the Council.

SCHEDULE 9 [reg. 7]

Vehicle Design Standards (Emission) for Motor
Tricycles Registered on or after
1 October 1999

Emission shall not exceed the emission standards as stated in and measured by the Type I test procedure specified in Council Directive 97/24/EC made by the Council."

Patrick LAU

Acting Secretary for Planning, Environment and Lands

11 May 1999

Explanatory Note

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

- (a) imposing more stringent vehicle design standards for emission of air pollutants applicable to certain private cars, taxis, goods vehicles, light buses and buses first

registered on or after 1 July 1999;

(b) introducing a set of vehicle design standards for emission of air pollutants for motor cycles and motor tricycles first registered on or after 1 October 1999.