

**L.N. 173 of 2018**

**Air Pollution Control (Non-road Mobile Machinery)  
(Emission) (Amendment) Regulation 2018**

**Contents**

Section	Page
1.	Commencement .....B4805
2.	Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation amended .....B4805
3.	Section 14 amended (Authority may permit modification of approved or exempted non-road mobile machinery).....B4805
4.	Section 15 amended (application for modification of non-road mobile machinery).....B4807
5.	Section 19 added.....B4807
19.	Transitional provision relating to Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment) Regulation 2018 .....B4807
6.	Schedule 1 amended (emission standards).....B4807

## **Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment) Regulation 2018**

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

### **1. Commencement**

- (1) Subject to subsections (2), (3) and (4), this Regulation comes into operation on 1 January 2019.
- (2) Section 6(11), (12), (13), (14) and (27) comes into operation on 1 April 2019.
- (3) Section 6(4), (5) and (6) comes into operation on 1 September 2019.
- (4) Section 6(7), (8), (9), (10), (15), (16), (17), (18), (26) and (28) comes into operation on 1 September 2020.

### **2. Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation amended**

The Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (Cap. 311 sub. leg. Z) is amended as set out in sections 3 to 6.

### **3. Section 14 amended (Authority may permit modification of approved or exempted non-road mobile machinery)**

Section 14(1)(a)—

#### **Repeal**

“approval was given”

#### **Substitute**

“application for the approval was made”.

**4. Section 15 amended (application for modification of non-road mobile machinery)**

Section 15(2)(f)—

**Repeal**

“approval was given”

**Substitute**

“application for the approval was made”.

**5. Section 19 added**

After section 18—

**Add**

**“19. Transitional provision relating to Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment) Regulation 2018**

(1) If an application for approval under section 7(2) made in respect of a non-road vehicle is pending when the prescribed emission standard applicable to the vehicle is amended by the Amendment Regulation, the standard as in force immediately before the amendment continues to apply in relation to the application and the vehicle as if the standard had not been so amended.

(2) In this section—

*Amendment Regulation* (《修訂規例》) means the Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment) Regulation 2018.”.

**6. Schedule 1 amended (emission standards)**

(1) Schedule 1, Part 1, section 1—

**Add in alphabetical order**

“*design weight* (設計重量), in relation to a particular motor vehicle, means the maximum design loaded vehicle weight recommended by its manufacturer for motor vehicles of the same class or description as the particular vehicle;

*direct-injection type* (直噴型), in relation to an engine, means a type of engine in which the fuel is injected directly into the combustion space above the piston crown;

*indirect-injection type* (非直噴型), in relation to an engine, means a type of engine in which the fuel is not injected directly into the combustion space above the piston crown;”.

- (2) Schedule 1, Part 4, section 1—

**Repeal**

“in column 4”

**Substitute**

“in column 2”.

- (3) Schedule 1, Part 4, section 1—

**Repeal the Table**

**Substitute**

“Table A

Column 1	Column 2
Vehicle	Provisions in which emission standard is specified
1. Private car— (a) that is equipped with a positive-ignition engine of indirect-injection type; and (b) the design weight of which does not exceed 3 tonnes.	Section 3(1), (3) or (4) of this Part
2. Private car— (a) that is equipped with a positive-ignition engine of direct-injection type; and (b) the design weight of which does not exceed 3 tonnes.	Sections 3(1), (3) or (4) and 4(1) of this Part
3. Private car— (a) that is equipped with a compression-ignition engine; and (b) the design weight of which does not exceed 3 tonnes.	Sections 3(3) and 4(2) of this Part

Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment)  
Regulation 2018

L.N. 173 of 2018  
B4813

Section 6

Column 1	Column 2
Vehicle	Provisions in which emission standard is specified
4. Goods vehicle— (a) that is equipped with a positive-ignition engine of indirect-injection type; and (b) the design weight of which does not exceed 3.5 tonnes.	Section 3(1), (3) or (4) of this Part
5. Goods vehicle— (a) that is equipped with a positive-ignition engine of direct-injection type; and (b) the design weight of which does not exceed 3.5 tonnes.	Sections 3(1), (3) or (4) and 4(1) of this Part
6. Goods vehicle— (a) that is equipped with a compression-ignition engine; and (b) the design weight of which does not exceed 3.5 tonnes.	Sections 3(1) or (3) and 4(2) of this Part

Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment)  
Regulation 2018

L.N. 173 of 2018  
B4815

Section 6

Column 1	Column 2
Vehicle	Provisions in which emission standard is specified
7. Goods vehicle— (a) that is equipped with a positive-ignition engine; and (b) the design weight of which exceeds 3.5 tonnes.	Sections 3(5) or (7), 4(4) and 5 of this Part
8. Goods vehicle— (a) that is equipped with a compression-ignition engine; and (b) the design weight of which exceeds 3.5 tonnes.	Sections 3(5) or (7), 4(3) and (4) and 5 of this Part
9. Bus— (a) that is equipped with a positive-ignition engine; and (b) the design weight of which exceeds 3.5 tonnes but does not exceed 9 tonnes.	Section 2(5), (6) or (7) of this Part

Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment)  
Regulation 2018

L.N. 173 of 2018

B4817

Section 6

Column 1	Column 2
Vehicle	Provisions in which emission standard is specified
10. Bus— (a) that is equipped with a compression-ignition engine; and (b) the design weight of which exceeds 3.5 tonnes but does not exceed 9 tonnes.	Sections 2(1) and 2(5), (6) or (7) of this Part
11. Bus— (a) that is equipped with a positive-ignition engine; and (b) the design weight of which exceeds 9 tonnes.	Sections 3(5) or (7), 4(4) and 5 of this Part
12. Bus— (a) that is equipped with a compression-ignition engine; and (b) the design weight of which exceeds 9 tonnes.	Sections 3(5) or (7), 4(3) and (4) and 5 of this Part



Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment)  
Regulation 2018

L.N. 173 of 2018  
B4819

Section 6

Column 1	Column 2
Vehicle	Provisions in which emission standard is specified
13. Light bus— (a) that is equipped with a positive-ignition engine of indirect-injection type; and (b) the design weight of which does not exceed 3.5 tonnes.	Section 3(1), (3) or (4) of this Part
14. Light bus— (a) that is equipped with a positive-ignition engine of direct-injection type; and (b) the design weight of which does not exceed 3.5 tonnes.	Sections 3(1), (3) or (4) and 4(1) of this Part
15. Light bus— (a) that is equipped with a compression-ignition engine; and (b) the design weight of which does not exceed 3.5 tonnes.	Sections 3(1) or (3) and 4(2) of this Part

Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment)  
Regulation 2018

L.N. 173 of 2018  
B4821

Section 6

Column 1	Column 2
Vehicle	Provisions in which emission standard is specified
16. Light bus— (a) that is equipped with a positive-ignition engine; and (b) the design weight of which exceeds 3.5 tonnes.	Section 2(5), (6) or (7) of this Part
17. Light bus— (a) that is equipped with a compression-ignition engine; and (b) the design weight of which exceeds 3.5 tonnes.	Sections 2(1) and 2(5), (6) or (7) of this Part
18. Motor cycle that is equipped with a positive-ignition engine.	Section 2(8), (9) or (10) of this Part
19. Motor cycle that is equipped with a compression-ignition engine.	Sections 2(1) and 2(8), (9) or (10) of this Part
20. Motor tricycle that is equipped with a positive-ignition engine.	Section 2(11) of this Part
21. Motor tricycle that is equipped with a compression-ignition engine.	Section 2(1) and (11) of this Part

Section 6

Column 1	Column 2
Vehicle	Provisions in which emission standard is specified
22. Special purpose vehicle that is equipped with a compression-ignition engine.	Section 2(1) of this Part

- (4) Schedule 1, Part 4, section 1, Table A, item 1, column 2—

**Repeal**

“3(1)”

**Substitute**

“3(2)”.

- (5) Schedule 1, Part 4, section 1, Table A, item 2, column 2—

**Repeal**

“3(1)”

**Substitute**

“3(2)”.

- (6) Schedule 1, Part 4, section 1, Table A, item 2, column 2—

**Repeal**

“4(1)”

**Substitute**

“4(2)”.

- (7) Schedule 1, Part 4, section 1, Table A, item 4, column 2—

**Repeal**

“3(1)”

”.

**Substitute**

“3(2)”.

- (8) Schedule 1, Part 4, section 1, Table A, item 5, column 2—

**Repeal**

“3(1)”

**Substitute**

“3(2)”.

- (9) Schedule 1, Part 4, section 1, Table A, item 5, column 2—

**Repeal**

“4(1)”

**Substitute**

“4(2)”.

- (10) Schedule 1, Part 4, section 1, Table A, item 6, column 2—

**Repeal**

“3(1)”

**Substitute**

“3(2)”.

- (11) Schedule 1, Part 4, section 1, Table A, item 7, column 2—

**Repeal**

“3(5)”

**Substitute**

“3(6)”.

- (12) Schedule 1, Part 4, section 1, Table A, item 8, column 2—

**Repeal**

“3(5)”

**Substitute**

Section 6

---

“3(6)”.

- (13) Schedule 1, Part 4, section 1, Table A, item 11, column 2—

**Repeal**

“3(5)”

**Substitute**

“3(6)”.

- (14) Schedule 1, Part 4, section 1, Table A, item 12, column 2—

**Repeal**

“3(5)”

**Substitute**

“3(6)”.

- (15) Schedule 1, Part 4, section 1, Table A, item 13, column 2—

**Repeal**

“3(1)”

**Substitute**

“3(2)”.

- (16) Schedule 1, Part 4, section 1, Table A, item 14, column 2—

**Repeal**

“3(1)”

**Substitute**

“3(2)”.

- (17) Schedule 1, Part 4, section 1, Table A, item 14, column 2—

**Repeal**

“4(1)”

**Substitute**

“4(2)”.

Section 6

---

- (18) Schedule 1, Part 4, section 1, Table A, item 15, column 2—  
**Repeal**  
“3(1)”  
**Substitute**  
“3(2)”.
- (19) Schedule 1, Part 4, section 2, heading—  
**Repeal**  
“standard”  
**Substitute**  
“standards for certain non-road vehicles approved on or after 1 June 2015”.
- (20) Schedule 1, Part 4, section 2—  
**Repeal subsections (2), (3) and (4).**
- (21) Schedule 1, Chinese text, Part 4, section 2(5)—  
**Repeal**  
“及旅遊” (wherever appearing).
- (22) Schedule 1, Part 4, section 2(7)(a), after “America”—  
**Add**  
“as at 20 March 2012”.
- (23) Schedule 1, Part 4, section 2(7)(b)(i)—  
**Repeal**  
“emission standards”  
**Substitute**  
“the emission standards, as at 20 March 2012,”.

- (24) Schedule 1, Part 4, section 2(7)(b)(ii)—

**Repeal**

“emission standards and supplemental requirements”

**Substitute**

“the emission standards and supplemental requirements,  
as at 20 March 2012,”.

- (25) Schedule 1, Part 4, after section 2—

**Add**

**“3. Emission standards for certain non-road vehicles approved  
on or after 1 January 2019**

- (1) European Union Motor Vehicle Emission Standards,  
comprising all of the following—
- (a) all the testing procedures, requirements and  
emission limits, including those for on-board  
diagnostic system (except Type VI test),  
specified in—
- (i) Regulation (EC) No. 715/2007 of the  
European Parliament and of the Council;  
and
- (ii) Commission Regulation (EC) No. 692/2008  
as amended by its subsequent amendments  
up to and including amendments made  
by Commission Regulation (EU) No.  
2016/646;
- (b) the emission limit values for Type I test specified  
in Table 2 (Euro 6 Emission Limits) of Annex I  
to Regulation (EC) No. 715/2007 of the  
European Parliament and of the Council as  
amended by Commission Regulation (EC) No.  
692/2008 and its subsequent amendments up to

- and including amendments made by Commission Regulation (EU) No. 2016/646;
- (c) the emission standards and on-board diagnostic system standards specified in Row W, X, Y, ZA, ZB or ZC of Table 1 of Appendix 6 to Annex I to Commission Regulation (EC) No. 692/2008 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/646;
  - (d) all the type approval requirements specified in Directive 2007/46/EC of the European Parliament and of the Council as amended by its subsequent amendments up to and including amendments made by Regulation (EU) No. 2015/758.
- (2) European Union Motor Vehicle Emission Standards, comprising all of the following—
- (a) all the testing procedures, requirements and emission limits, including those for on-board diagnostic system (except Type VI test), specified in—
    - (i) Regulation (EC) No. 715/2007 of the European Parliament and of the Council; and
    - (ii) Commission Regulation (EC) No. 692/2008 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/646;
  - (b) the emission limit values for Type I test specified in Table 2 (Euro 6 Emission Limits) of Annex I to Regulation (EC) No. 715/2007 of the



- European Parliament and of the Council as amended by Commission Regulation (EC) No. 692/2008 and its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/646;
- (c) the emission standards and on-board diagnostic system standards specified in Row ZD, ZE or ZF of Table 1 of Appendix 6 to Annex I to Commission Regulation (EC) No. 692/2008 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/646;
  - (d) all the type approval requirements specified in Directive 2007/46/EC of the European Parliament and of the Council as amended by its subsequent amendments up to and including amendments made by Regulation (EU) No. 2015/758.
- (3) United States of America Motor Vehicle Emission Standards, comprising all of the following—
- (a) all the testing procedures, requirements and emission limits, including those for on-board diagnostic system, specified in Title 13 of the California Code of Regulations of the United States of America as at 23 December 2016;
  - (b) the emission limit values specified in “LEV III” in section 1961.2 of Article 2 of Chapter 1 of Division 3 of Title 13 of the California Code of Regulations of the United States of America as at 23 December 2016;
  - (c) all the type approval requirements administered by the California Air Resources Board.

- (4) Japan Motor Vehicle Emission Standards, comprising all of the following—
- (a) all the testing procedures, requirements and emission limits, including those for on-board diagnostic system, specified in—
    - (i) 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 the Ministry of Land, Infrastructure, Transport and Tourism Ordinance No. 18 of 31 March 2015; and
    - (ii) the Announcement that Prescribes Details of Safety Regulations for Road Vehicles (i.e. the Ministry of Land, Infrastructure and Transport Announcement No. 619 of 15 July 2002) as amended by its subsequent amendments up to and including amendments made by the Ministry of Land, Infrastructure, Transport and Tourism Announcement No. 459 of 31 March 2015;
  - (b) the emission limit values specified in Article 41 of the Announcement that Prescribes Details of Safety Regulations for Road Vehicles (i.e. the Ministry of Land, Infrastructure and Transport Announcement No. 619 of 15 July 2002) as amended by its subsequent amendments up to and including amendments made by the Ministry of Land, Infrastructure, Transport and Tourism Announcement No. 459 of 31 March 2015;

- (c) all the type approval requirements administered by the Ministry of Land, Infrastructure, Transport and Tourism of Japan.
- (5) European Union Motor Vehicle Emission Standards, comprising all of the following—
  - (a) all the testing procedures, requirements and emission limits, including those for on-board diagnostic system, specified in—
    - (i) Regulation (EC) No. 595/2009 of the European Parliament and of the Council; and
    - (ii) Commission Regulation (EU) No. 582/2011 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718;
  - (b) the emission limit values of gaseous and particulate pollutants from the engine specified in the Table entitled “Euro VI Emission Limits” of Annex I to Regulation (EC) No. 595/2009 of the European Parliament and of the Council as amended by Commission Regulation (EU) No. 582/2011 and its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718;
  - (c) the requirements specified in—
    - (i) Row A of Table 1 of Appendix 9 to Annex I to Commission Regulation (EU) No. 582/2011 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718, for vehicle

- models equipped with compression-ignition engines; or
- (ii) Row B of Table 1 of Appendix 9 to Annex I to Commission Regulation (EU) No. 582/2011 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718, for vehicle models equipped with positive-ignition engines;
  - (d) all the type approval requirements specified in Directive 2007/46/EC of the European Parliament and of the Council as amended by its subsequent amendments up to and including amendments made by Regulation (EU) No. 2015/758.
- (6) European Union Motor Vehicle Emission Standards, comprising all of the following—
- (a) all the testing procedures, requirements and emission limits, including those for on-board diagnostic system, specified in—
    - (i) Regulation (EC) No. 595/2009 of the European Parliament and of the Council; and
    - (ii) Commission Regulation (EU) No. 582/2011 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718;
  - (b) the emission limit values of gaseous and particulate pollutants from the engine specified in the Table entitled “Euro VI Emission Limits”

- of Annex I to Regulation (EC) No. 595/2009 of the European Parliament and of the Council as amended by Commission Regulation (EU) No. 582/2011 and its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718;
- (c) the requirements specified in Row C of Table 1 of Appendix 9 to Annex I to Commission Regulation (EU) No. 582/2011 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718;
  - (d) all the type approval requirements specified in Directive 2007/46/EC of the European Parliament and of the Council as amended by its subsequent amendments up to and including amendments made by Regulation (EU) No. 2015/758.
- (7) United States of America Motor Vehicle Emission Standards, comprising all of the following—
- (a) all the testing procedures, requirements and emission limits, including those for on-board diagnostic system for 2017 and later model years, specified in the Code of Federal Regulations Title 40 Protection of Environment Part 86 Control of Emissions from New and In-use Highway Vehicles and Engines of the United States of America including and up to the amendments on 25 October 2016;
  - (b) the emission limit values specified in—
    - (i) section 86.008-10 entitled “Emission standards for 2008 and later model year

Otto-cycle heavy-duty engines and vehicles” in the Code of Federal Regulations Title 40 Protection of Environment Part 86 Control of Emissions from New and In-use Highway Vehicles and Engines of the United States of America including and up to the amendments on 25 October 2016, for vehicle models equipped with positive-ignition engines including all the phase-in requirements for 2009; or

(ii) section 86.007-11 entitled “Emission standards and supplemental requirements for 2007 and later model year diesel heavy-duty engines and vehicles” in the Code of Federal Regulations Title 40 Protection of Environment Part 86 Control of Emissions from New and In-use Highway Vehicles and Engines of the United States of America including and up to the amendments on 25 October 2016, for vehicle models equipped with compression-ignition engines including all the phase-in requirements for 2010;

(c) all the type approval requirements administered by the United States Environmental Protection Agency.

**4. Emission standards for particulate emission from certain non-road vehicles approved on or after 1 January 2019**

(1) Number of particles emitted must not exceed  $6 \times 10^{12}$  per kilometre, as measured by the Type I test procedure specified in—

- (a) Regulation (EC) No. 715/2007 of the European Parliament and of the Council; and
  - (b) Commission Regulation (EC) No. 692/2008 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/646.
- (2) Number of particles emitted must not exceed  $6 \times 10^{11}$  per kilometre, as measured by the Type I test procedure specified in—
  - (a) Regulation (EC) No. 715/2007 of the European Parliament and of the Council; and
  - (b) Commission Regulation (EC) No. 692/2008 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/646.
- (3) Number of particles emitted must not exceed  $8 \times 10^{11}$  per kilowatt-hour, as measured by the Worldwide Harmonised Steady State Cycle (WHSC) test procedure specified in—
  - (a) Regulation (EC) No. 595/2009 of the European Parliament and of the Council; and
  - (b) Commission Regulation (EU) No. 582/2011 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718.
- (4) Number of particles emitted must not exceed  $6 \times 10^{11}$  per kilowatt-hour, as measured by the Worldwide Harmonised Transient Driving Cycle (WHTC) test procedure specified in—
  - (a) Regulation (EC) No. 595/2009 of the European Parliament and of the Council; and

- (b) Commission Regulation (EU) No. 582/2011 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718.

**5. Emission standards: portable emissions measurement system demonstration test at type approval**

Portable emissions measurement system demonstration test at type approval specified in Appendix 1 to Annex VI to Commission Regulation (EU) No. 582/2011 as amended by its subsequent amendments up to and including amendments made by Commission Regulation (EU) No. 2016/1718.”.

- (26) Schedule 1, Part 4, section 3—

**Repeal subsection (1).**

- (27) Schedule 1, Part 4, section 3—

**Repeal subsection (5).**

- (28) Schedule 1, Part 4, section 4—

**Repeal subsection (1).**

WONG Kam-sing  
Secretary for the Environment

10 October 2018

---



## Explanatory Note

To reduce emission of air-pollutants from vehicles that are used exclusively in the Restricted Area of the Hong Kong International Airport, construction sites and industrial sites, etc. (*non-road vehicles*), this Regulation amends the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (Cap. 311 sub. leg. Z) (*principal Regulation*) to impose more stringent emission standards on the following non-road vehicles starting from 1 January 2019—

- (a) private cars;
  - (b) goods vehicles;
  - (c) buses having a design weight that exceeds 9 tonnes;
  - (d) light buses having a design weight that does not exceed 3.5 tonnes.
2. Moreover, the emission standards are to be further tightened for—
  - (a) goods vehicles having a design weight that exceeds 3.5 tonnes and buses having a design weight that exceeds 9 tonnes starting from 1 April 2019;
  - (b) private cars that are equipped with positive-ignition engines starting from 1 September 2019; and
  - (c) goods vehicles having a design weight that does not exceed 3.5 tonnes and light buses having a design weight that does not exceed 3.5 tonnes starting from 1 September 2020.
3. The Regulation also makes minor textual amendments to the principal Regulation.