
Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) No 582/2011. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes

ANNEX X

ON-BOARD DIAGNOSTICS

2. GENERAL REQUIREMENTS

[^{F1}2.1. The general requirements shall be those set out in paragraph 2 of Annex 9A to UNECE Regulation No 49, with the exceptions provided for in point 2.2.1 of this Regulation.]

[^{F2}2.1.1. Paragraphs 2.3.2.1 and 2.3.2.2 of Annex 9A to UNECE Regulation No 49 shall be understood as follows:

2.3.2.1. The performance of the particulate after treatment device, including the filtration and continuous regeneration processes, shall be monitored against the OBD threshold limit specified in Table 1 of this Annex.

2.3.2.2. Before the dates specified in Article 4(8) of this Regulation and in the case of a wall-flow diesel particulate filter (DPF), the manufacturer may choose to apply the performance monitoring requirements set out in Appendix 8 of Annex 9B to UNECE Regulation No 49 instead of the requirements set out in paragraph 2.3.2.1, if he can demonstrate with technical documentation that in case of deterioration there is a positive correlation between the loss of filtration efficiency and the loss of pressure drop (delta pressure) across the DPF under the operating conditions of the engine specified in the tests described in Appendix 8 of Annex 9B to UNECE Regulation No 49.]

Textual Amendments

F2 Inserted by [Commission Regulation \(EU\) No 133/2014 of 31 January 2014 amending, for the purposes of adapting to technical progress as regards emission limits, Directive 2007/46/EC of the European Parliament and of the Council, Regulation \(EC\) No 595/2009 of the European Parliament and of the Council and Commission Regulation \(EU\) No 582/2011 \(Text with EEA relevance\).](#)

Textual Amendments

F1 Substituted by [Commission Regulation \(EU\) No 133/2014 of 31 January 2014 amending, for the purposes of adapting to technical progress as regards emission limits, Directive 2007/46/EC of the European Parliament and of the Council, Regulation \(EC\) No 595/2009 of the European Parliament and of the Council and Commission Regulation \(EU\) No 582/2011 \(Text with EEA relevance\).](#)

[^{F1}2.2. The Commission shall conduct a review of the monitoring requirements set out in point 2.3.2.1 of Annex 9A to UNECE Regulation No 49 by 31 December 2012. In case the technical non-feasibility of the respective requirements by the dates specified in Article 4(8) of this Regulation is demonstrated, the Commission shall make a proposal for amending those dates accordingly.]

^{F3}2.3. Additional provisions concerning monitoring requirements

2.3.1. ^{F3}

2.3.1.1.

2.3.2. ^{F3}

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- 2.3.2.1.
- 2.3.3. ^{F3}
- 2.3.3.1
- 2.3.3.2.
- 2.3.3.3.
- 2.3.3.4.

Textual Amendments

F3 Deleted by Commission Regulation (EU) No 133/2014 of 31 January 2014 amending, for the purposes of adapting to technical progress as regards emission limits, Directive 2007/46/EC of the European Parliament and of the Council, Regulation (EC) No 595/2009 of the European Parliament and of the Council and Commission Regulation (EU) No 582/2011 (Text with EEA relevance).

2.4. Alternative approval

- [^{F1}2.4.1. If requested by the manufacturer, for vehicles of categories M₂ and N₁, for vehicles of categories M₁ and N₂ with a technically permissible maximum laden mass not exceeding 7,5 tonnes, and for vehicles of category M₃ Class I, Class II and Class A and Class B as defined in Annex I to Directive 2001/85/EC with a permissible mass not exceeding 7,5 tonnes, compliance with the requirements set out in Annex XI to Regulation (EC) No 692/2008 shall be considered equivalent to the compliance with this Annex, in accordance with the following equivalences:]
 - [^{F2}2.4.1.1 The OBD standard Euro 6 – plus IUPR in Table 1 of Appendix 6 of Annex I to Regulation (EC) No 692/2008 shall be considered equivalent to the character A of Table 1 of Appendix 9 of Annex I to this Regulation.
 - 2.4.1.2. The OBD standard Euro 6 – 1 in Table 1 of Appendix 6 of Annex I to Regulation (EC) No 692/2008 shall be considered equivalent to the character B of Table 1 of Appendix 9 of Annex I to this Regulation.
 - [^{F4}2.4.1.3 The OBD standard Euro 6-2 in Table 1 of Appendix 6 of Annex I to Regulation (EC) No 692/2008 shall be considered equivalent to the characters C and D of Table 1 of Appendix 9 of Annex I to this Regulation.]

Textual Amendments

F4 Substituted by Commission Regulation (EU) 2017/1347 of 13 July 2017 correcting Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EU) No 582/2011 and Commission Regulation (EU) 2017/1151 supplementing Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information, amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) No 1230/2012 and repealing Regulation (EC) No 692/2008 (Text with EEA relevance).

- 2.4.1.a. If such alternative approval is used, the information related to OBD systems in points 3.2.12.2.7.1 to 3.2.12.2.7.4 of Part 2 of Appendix 4 to Annex I is replaced

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by the information in point 3.2.12.2.7 of Appendix 3 to Annex I to Regulation (EC) No 692/2008.

2.4.1.b. The equivalences set out in point 2.4.1. shall apply in the following manner:

2.4.1.b.1. The OTL's and dates referred to in Table 1 of Appendix 9 of Annex I to this Regulation and relevant to the assigned character for which the type-approval is sought shall apply.

2.4.1.b.2. The requirements on NO_x control measures set out in points 2.1.2.2.1 to 2.1.2.2.5 of Annex XIII shall apply.]

2.4.2. ^[F5] *Small series production*

As an alternative to the requirements set out in Section 4 of Annex 9B to UN/ECE Regulation No 49 and those described in this Annex, engine manufacturers whose world-wide annual production of engines within an engine type subject to this Regulation is less than 500 engines per year, may obtain EC type-approval on the basis of the other requirements of this Regulation when the emission control components of the engine system are at least monitored for circuit continuity, and for rationality and plausibility of sensor outputs, and when the aftertreatment system is at least monitored for total functional failure. Engine manufacturers whose world-wide annual production of engines within an engine type subject to this Regulation is less than 50 engines per year, may obtain EC type-approval on the basis of the requirements of this Regulation when the emission control components of the engine system are at least monitored for circuit continuity, and for rationality and plausibility of sensor outputs (component monitoring).

^[F6] A manufacturer shall not be permitted to use the alternative provisions specified in this point for more than 500 engines per year.]

Textual Amendments

F6 Inserted by [Commission Regulation \(EU\) No 64/2012 of 23 January 2012 amending Regulation \(EU\) No 582/2011 implementing and amending Regulation \(EC\) No 595/2009 of the European Parliament and of the Council with respect to emissions from heavy duty vehicles \(Euro VI\) \(Text with EEA relevance\).](#)

Textual Amendments

F5 Deleted by [Commission Regulation \(EU\) No 64/2012 of 23 January 2012 amending Regulation \(EU\) No 582/2011 implementing and amending Regulation \(EC\) No 595/2009 of the European Parliament and of the Council with respect to emissions from heavy duty vehicles \(Euro VI\) \(Text with EEA relevance\).](#)

^{F5}2.4.3.

2.4.4. The approval authority shall inform the Commission of the circumstances of each type-approval granted under Sections 2.4.1 and 2.4.2.

2.5. Conformity of production

The OBD system is subject to the requirements for conformity of production specified in Directive 2007/46/EC.

If the approval authority decides that verification of the conformity of production of the OBD system is required, the verification shall be conducted in accordance with the requirements specified in Annex I to this Regulation.

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[^{F2}2.6. **Dual-fuel engines and vehicles**

- 2.6.1. Dual-fuel engines and vehicles shall comply with the requirements applicable to diesel engines specified in this Annex, regardless of whether operating in dual-fuel or diesel mode.
- 2.6.2. In addition to point 2.6.1, dual-fuel engines and vehicles shall comply with the OBD requirements set out in paragraph 7 of Annex 15 to UNECE Regulation No 49.
- 2.6.3. The provisions for alternative approval set out in point 2.4.1 shall not apply in the case of dual-fuel vehicles and engines.]

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Changes and effects yet to be applied to the whole legislation item and associated provisions

- Signature words omitted by [S.I. 2022/1273 reg. 65\(19\)](#)
- Annex list words substituted by [S.I. 2022/1273 reg. 65\(20\)](#)
- Annex 1 Appendix 4Pt. 3 omitted by [S.I. 2022/1273 reg. 66\(3\)\(g\)](#)
- Annex 1 Appendix 8 image substituted by [S.I. 2022/1273 reg. 66\(7\)\(b\)](#)
- Annex 1 Appendix 4Pt. 1 table words inserted by [S.I. 2022/1273 reg. 66\(3\)\(e\)\(i\)](#)
- Annex 1 Appendix 4Pt. 2 table words inserted by [S.I. 2022/1273 reg. 66\(3\)\(f\)\(i\)](#)
- Annex 1 Appendix 4 words omitted by [S.I. 2022/1273 reg. 66\(3\)\(b\)](#)
- Annex 1 Appendix 4 words omitted by [S.I. 2022/1273 reg. 66\(3\)\(c\)\(ii\)\(bb\)](#)
- Annex 1 Appendix 4 words omitted by [S.I. 2022/1273 reg. 66\(3\)\(c\)\(iii\)\(aa\)](#)
- Annex 1 Appendix 4 table words omitted by [S.I. 2022/1273 reg. 66\(3\)\(d\)\(i\)](#)
- Annex 1 Appendix 4 words omitted by [S.I. 2022/1273 reg. 66\(3\)\(d\)\(iii\)](#)
- Annex 1 Appendix 8 words omitted by [S.I. 2022/1273 reg. 66\(7\)\(c\)](#)
- Annex 1 Appendix 1 point 2.2 words omitted by [S.I. 2022/1273 reg. 66\(10\)\(e\)](#)
- Annex 1 Appendix 4 words substituted by [S.I. 2022/1273 reg. 66\(3\)\(a\)](#)
- Annex 1 Appendix 4 words substituted by [S.I. 2022/1273 reg. 66\(3\)\(c\)\(i\)](#)
- Annex 1 Appendix 4 words substituted by [S.I. 2022/1273 reg. 66\(3\)\(c\)\(ii\)\(aa\)](#)
- Annex 1 Appendix 4 words substituted by [S.I. 2022/1273 reg. 66\(3\)\(c\)\(iii\)\(bb\)](#)
- Annex 1 Appendix 4 table words substituted by [S.I. 2022/1273 reg. 66\(3\)\(d\)\(ii\)](#)
- Annex 1 Appendix 4Pt. 1 table words substituted by [S.I. 2022/1273 reg. 66\(3\)\(e\)\(ii\)](#)
- Annex 1 Appendix 4Pt. 2 table words substituted by [S.I. 2022/1273 reg. 66\(3\)\(f\)\(ii\)](#)
- Annex 1 Appendix 5 heading words substituted by [S.I. 2022/1273 reg. 66\(4\)\(a\)](#)
- Annex 1 Appendix 5 words substituted by [S.I. 2022/1273 reg. 66\(4\)\(a\)](#)
- Annex 1 Appendix 5s. 2 point 000.5 words substituted by [S.I. 2022/1273 reg. 66\(4\)\(b\)](#)
- Annex 1 Appendix 6 heading words substituted by [S.I. 2022/1273 reg. 66\(5\)\(a\)](#)
- Annex 1 Appendix 6 heading words substituted by [S.I. 2022/1273 reg. 66\(5\)\(b\)](#)
- Annex 1 Appendix 6 heading words substituted by [S.I. 2022/1273 reg. 66\(5\)\(c\)](#)
- Annex 1 Appendix 7 heading words substituted by [S.I. 2022/1273 reg. 66\(6\)](#)
- Annex 1 Appendix 7 words substituted by [S.I. 2022/1273 reg. 66\(6\)](#)
- Annex 1 Appendix 7 Addendum words substituted by [S.I. 2022/1273 reg. 66\(6\)](#)
- Annex 1 Appendix 8 heading words substituted by [S.I. 2022/1273 reg. 66\(7\)\(a\)](#)
- Annex 1 Appendix 9 heading words substituted by [S.I. 2022/1273 reg. 66\(8\)](#)
- Annex 1 Appendix 9 words substituted by [S.I. 2022/1273 reg. 66\(8\)](#)
- Annex 1 Appendix 10 words substituted by [S.I. 2022/1273 reg. 66\(9\)](#)
- Annex 10 Appendix 5 point 2.4.1 words omitted by [S.I. 2022/1273 reg. 66\(12\)\(f\)\(i\)](#)
- Annex 10 Appendix 5 point 6 heading words omitted by [S.I. 2022/1273 reg. 66\(12\)\(f\)\(iii\)](#)
- Annex 10 Appendix 5 point 6 words omitted by [S.I. 2022/1273 reg. 66\(12\)\(f\)\(iii\)](#)
- Annex 10 Appendix 5 point 5.2.4 words substituted by [S.I. 2022/1273 reg. 66\(12\)\(f\)\(ii\)](#)
- Annex 11 Appendix 1 point 2-2.3 omitted by [S.I. 2022/1273 reg. 66\(13\)\(k\)\(ii\)](#)
- Annex 11 Appendix 2 words inserted by [S.I. 2022/1273 reg. 66\(13\)\(l\)\(ii\)](#)
- Annex 11 Appendix 1 point 000.7 words substituted by [S.I. 2022/1273 reg. 66\(13\)\(k\)\(i\)](#)
- Annex 11 Appendix 2 words substituted by [S.I. 2022/1273 reg. 66\(13\)\(l\)\(i\)](#)
- Annex 11 Appendix 2 words substituted by [S.I. 2022/1273 reg. 66\(13\)\(l\)\(iii\)](#)
- Annex 11 Appendix 3 point 2.4.2.11 words substituted by [S.I. 2022/1273 reg. 66\(13\)\(m\)\(i\)](#)

- Annex 11 Appendix 3 point 2.4.6.5 words substituted by [S.I. 2022/1273 reg. 66\(13\)\(m\)\(ii\)](#)
- Art. 2(44) omitted by [S.I. 2022/1273 reg. 65\(2\)](#)
- Art. 5(4)(d) omitted by [S.I. 2022/1273 reg. 65\(6\)\(c\)](#)
- Art. 5(4)(g) omitted by [S.I. 2022/1273 reg. 65\(6\)\(c\)](#)
- Art. 6(1a)(a) words substituted by [S.I. 2022/1273 reg. 65\(7\)\(c\)\(ii\)](#)
- Art. 6(1a)(b) omitted by [S.I. 2022/1273 reg. 65\(7\)\(c\)\(iii\)](#)
- Art. 7(4)(c) omitted by [S.I. 2022/1273 reg. 65\(8\)\(c\)](#)
- Art. 7(4)(d) omitted by [S.I. 2022/1273 reg. 65\(8\)\(c\)](#)
- Art. 8(1a)(a) word substituted by [S.I. 2022/1273 reg. 65\(9\)\(d\)\(i\)](#)
- Art. 8(1a)(b) omitted by [S.I. 2022/1273 reg. 65\(9\)\(d\)\(ii\)](#)
- Art. 8(1a)(e) words substituted by [S.I. 2022/1273 reg. 65\(9\)\(d\)\(iii\)](#)
- Art. 10(1a)(a) word substituted by [S.I. 2022/1273 reg. 65\(11\)\(a\)](#)
- Art. 10(1a)(b) omitted by [S.I. 2022/1273 reg. 65\(11\)\(d\)\(ii\)](#)
- Art. 10(1a)(e) words substituted by [S.I. 2022/1273 reg. 65\(11\)\(d\)\(iii\)](#)