Commission Delegated Regulation (EU) 2017/655 of 19 December 2016 supplementing Regulation (EU) 2016/1628 of the European Parliament and of the Council with regard to monitoring of gaseous pollutant emissions from in-service internal combustion engines installed in non-road mobile machinery (Text with EEA relevance)

COMMISSION DELEGATED REGULATION (EU) 2017/655

of 19 December 2016

supplementing Regulation (EU) 2016/1628 of the European Parliament and of the Council with regard to monitoring of gaseous pollutant emissions from in-service internal combustion engines installed in non-road mobile machinery

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013, and amending and repealing Directive 97/68/EC[1], and in particular Article 19(2) thereof,

Whereas:

(1) Article 19 of Regulation (EU) 2016/1628, provides for monitoring of the gaseous pollutant emissions by testing in-service engines installed in non-road mobile machinery and operated over their normal operating duty cycles.

(2) In order to ensure the monitoring provided for in Article 19, it is necessary to adopt detailed arrangements with regard to the selection of engines, test procedures and reporting of results.

(3) In order to reduce the administrative burden for small volume manufacturers and for manufacturers producing a limited number of engine types or engine families, it is necessary to limit the number of engines subject to in-service monitoring testing by those manufacturers.

(4) To ensure coherence in the application of this Regulation, the manufacturer should not be required to present in-service monitoring test results if it can demonstrate that the engines have not been installed in non-road mobile machinery or that it was not able to obtain access to an engine in any application for testing.

(5) In order to further harmonise the in-service monitoring procedures for non-road mobile machinery with other EU legislation and international standards, those procedures should be aligned with in-service conformity check for heavy-duty vehicles (EURO VI)

and with the requirements of Regulation 96 adopted by the United Nations Economic Commission for Europe,

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter

This Regulation establishes detailed arrangements with regard to the selection of engines, test procedures and reporting of results relating to monitoring of gaseous pollutant emissions from in-service internal combustion engines installed in non-road mobile machinery using portable emission measurement systems.

Article 2

Scope

1 This Regulation applies to monitoring of the gaseous pollutant emissions from the following categories of in-service engines of emission Stage V installed in non-road mobile machinery:

a NRE-v-5;

b NRE-v-6.

2 This Regulation applies to engine manufacturer.

This Regulation does not apply to original equipment manufacturer.

3 This Regulation does not apply where the manufacturer demonstrates to the approval authority that it is not able to obtain access to any engine installed in a non-road mobile machinery for the purposes of in-service monitoring.

Article 3

Procedures and requirements for monitoring of emissions of in-service engines

Gaseous pollutant emissions from in-service engines referred to in Article 19(1) of Regulation (EU) 2016/1628 shall be monitored in accordance with the Annex to this Regulation.

[F1 Article 3a

Transitional provisions

1 Notwithstanding the application of the provisions of this Regulation, as amended by Commission Delegated Regulation (EU) 2018/987[(2)], approval authorities shall, until 31 December 2018, also continue to grant EU type-approvals to engine types or engine families in accordance with this Regulation, in its version applicable on 6 August 2018.

2 Notwithstanding the application of the provisions of this Regulation, as amended by Delegated Regulation (EU) 2018/987, the Member States shall, until 30 June 2019, also permit

the placing on the market of engines based on an engine type approved in accordance with this Regulation, in its version applicable on 6 August 2018.**]**

Textual Amendments

F1 Inserted by Commission Delegated Regulation (EU) 2018/987 of 27 April 2018 amending and correcting Delegated Regulation (EU) 2017/655 supplementing Regulation (EU) 2016/1628 of the European Parliament and of the Council with regard to monitoring of gaseous pollutant emissions from in-service internal combustion engines installed in non-road mobile machinery (Text with EEA relevance).

Article 4

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Changes to legislation: *There are currently no known outstanding effects for the Commission Delegated Regulation (EU) 2017/655. (See end of Document for details)*

ANNEX

1. General requirements for in-service monitoring

1.1. For the purposes of this Annex ‘category of non-road mobile machinery’ means a grouping of non-road mobile machinery that fulfil the same generic function(s),

1.2. The manufacturer shall obtain access to engines installed in non-road mobile machinery in order to conduct in-service monitoring tests.

When conducting the in-service monitoring test the manufacturer shall perform the emissions data sampling, measurement of exhaust parameters and data logging of an in-service engine installed in a non-road mobile machinery operated over its normal operating duty cycles until reaching the minimum test duration as set out in point 2 of Appendix 2.

1.3. Engines subject to in-service monitoring test shall:

(a) be installed in one of the most representative categories of non-road mobile machinery for the selected engine type or, where applicable, engine family;

(b) be placed on the Union market;

(c) have a maintenance record to show that the engine has been properly maintained and serviced in accordance with the manufacturer's recommendations;

(d) exhibit no indications of misuse (e.g. overloading or misfuelling), or other factors (such as tampering) that could affect the gaseous pollutant emissions performance;

(e) be in conformity with the EU type-approval documents with regard to the components of the emission control system(s) installed in the engine and in the non-road mobile machinery.

1.4. The following engines shall be considered as non-eligible for in-service monitoring test, and an alternative engine shall be selected:

(a) engines without a communication interface which permits the collection of the necessary Electronic Control Unit (ECU) data as specified in Appendix 7;

(b) engines with an ECU with missing data or a data protocol that does not enable clear identification and validation of the necessary signals.

1.5. Engines where the collection of ECU data influences the non-road mobile machinery gaseous pollutant emissions or performance shall be considered as non-eligible for in-service monitoring test. Notwithstanding the requirements of article 39 of Regulation (EU) 2016/1628, an alternative engine shall only be selected if the manufacturer can substantially prove to the approval authority the absence of any defeat strategy.

2. Plan for monitoring in-service engines

2.1. The manufacturer shall submit to the approval authority that has granted approval of an engine type or, where applicable, engine family, within 1 month of the start of production of the approved engine type or engine family, the initial plan for monitoring in-service engines.

2.2. The initial plan shall include the criteria used for and the justification of the selection of:

(a) the engine families or engine types and category(ies) of non-road mobile machinery included in the plan;

***Changes to legislation:** There are currently no known outstanding effects for the Commission Delegated Regulation (EU) 2017/655. (See end of Document for details)*

(b) the list of particular engine(s) and non-road mobile machinery selected for in-service monitoring test, if already identified;

(c) the chosen testing scheme.

2.3. Manufacturers shall submit to the approval authority an updated plan for monitoring in-service engines whenever the list of particular engine(s) and non-road mobile machinery selected is completed or revised. The updated plan shall be include a justification of the criteria used for the selection and the reasons for revising the previous list, if applicable.

2.4. The approval authority shall approve the initial and subsequently updated plan(s) or request the appropriate amendments within 2 months of their submission, and shall ensure that the final plan includes the widest variety of engine types and categories of non-road mobile machinery.

2.5. Each initial or subsequently updated monitoring plan shall be approved by the approval authority before the testing of engines and non-road mobile machinery identified therein is started.

2.6. Testing scheme

The manufacturer shall choose one of the following testing schemes for in-service monitoring:

2.6.1. Testing scheme based on the Emission Durability Period (EDP)

[F2 2.6.1.1. Testing 9 engines with an accumulated service of less than *a* % of the EDP, in accordance with Table 1. Test results shall be submitted to the approval authority by 31 December 2022.

Textual Amendments

F2 Substituted by Commission Delegated Regulation (EU) 2018/987 of 27 April 2018 amending and correcting Delegated Regulation (EU) 2017/655 supplementing Regulation (EU) 2016/1628 of the European Parliament and of the Council with regard to monitoring of gaseous pollutant emissions from in-service internal combustion engines installed in non-road mobile machinery (Text with EEA relevance).

2.6.1.2. Testing 9 engines with an accumulated service higher than *b* % of the EDP, in accordance with Table 1. Test reports shall be submitted to the approval authority by 31 December 2024.**]**

2.6.1.3. When the manufacturer cannot fulfil the requirement under point 2.6.1 due to an unavailability of engines with the required service accumulation, the approval authority shall not reject a change to the testing scheme based on a 4 years' period set out in point 2.6.2. Engines already tested in accordance with point 2.6.1 shall remain valid under point 2.6.2.

***[**F1 TABLE 1*

% of EDP values

Reference power of selected engine (kW)	***a***	***b***
$56 \leq P < 130$	20	55
$130 \leq P \leq 560$	30	70**]**