



Brussels, **XXX**
[...](2021) **XXX** draft

COMMISSION DELEGATED REGULATION (EU) .../...

of **XXX**

**amending Delegated Regulation (EU) 2017/655 as regards adaptation of the provisions
on monitoring of gaseous pollutant emissions from in-service internal combustion
engines installed in non-road mobile machinery to include engines with power of less
than 56 kW and more than 560 kW**

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE DELEGATED ACT

The term non-road mobile machinery "NRMM" covers a wide range of different machinery, including small handheld equipment (lawn mowers, chain saws,...), construction machinery (excavators, loaders, dozers,...) or agricultural & farming machinery (harvesters, cultivators,...), but also railcars, locomotives and inland waterway vessels.

Article 19 of Regulation (EU) 2016/1628¹ requires manufacturers to monitor the gaseous pollutant emissions of in-service engines operated during their normal operating duty cycles to determine to which extent the emission measured from the test cycle correspond to the actual operation.

Article 60(3) of that Regulation requires the Commission, by 31 December 2025, to submit a report to the European Parliament and to the Council regarding the monitoring of the results of the emission tests set out in Article 19 and the conclusions thereof.

Due to the limited time to collect and analyse in-service monitoring data for the broad range of engine (sub-)categories under the scope of Regulation (EU) 2016/1628, a first set of in-service monitoring requirements was set out for those engine sub-categories for which the Commission had already performed a pilot program. Therefore, Regulation (EU) 2017/655² sets out the in-service monitoring requirements for engine sub-categories NRE-v-5 and NRE-v-6.

In order to collect additional data on the performance of in-service engines of other sub-categories, the Commission has performed pilot programmes enabling the assessment of the suitability of the monitoring tests and data analyses set-out in this Regulation for performing assessment of emissions from non-road mobile machinery engines in actual operation over their normal operating duty cycles.

Therefore, the European Commission wishes to amend Delegated Regulation (EU) 2017/655 to adopt in-service monitoring requirements for internal combustion engines installed in non-road mobile machinery for engines other than sub-categories NRE-v-5 and NRE-v-6 i.e. with a power of less than 56 kW and more than 560 kW.

2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT

In the preparation of this act, the Commission carried out appropriate consultations at expert level comprising the relevant industrial stakeholders, social partners and Member State experts.

3. LEGAL ELEMENTS OF THE DELEGATED ACT

The legal basis of this delegated act is Regulation (EU) 2016/1624 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and

¹ 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 (OJ L 252, 16.9.2016, p. 53).

² 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 (OJ L 102, 13.4.2017, p. 334).

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.

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amending Delegated Regulation (EU) 2017/655 as regards adaptation of the provisions on monitoring of gaseous pollutant emissions from in-service internal combustion engines installed in non-road mobile machinery to include engines with power of less than 56 kW and more than 560 kW

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/EC³, and in particular Article 19(2) thereof,

Whereas:

- (1) The Commission has carried out additional in-service monitoring programmes in cooperation with manufacturers to assess the suitability of monitoring tests and data analyses for measuring the emissions from non-road mobile machinery, regarding engines other than sub-categories NRE-v-5 and NRE-v-6, in actual operation over their normal operating duty cycles. As a consequence, appropriate in-service monitoring provisions for those sub-categories should be laid down in Delegated Regulation (EU) 2017/655⁴.
- (2) Taking into account the disruption caused by the COVID-19 pandemic and its impact on the manufacturers' ability to perform in-service monitoring testing, in order to provide sufficient time to manufacturers to perform the tests and to the Commission to assess the test results and produce the report to the European Parliament and the Council as required under Regulation (EU) 2016/1628, it is necessary to modify the deadlines for submitting in-service monitoring test reports.
- (3) The COVID-19 pandemic has demonstrated that unexpected events outside the control of the manufacturer may make it impossible to conduct the monitoring of in-service engines as planned. Given the continued disruption caused by the COVID-19 pandemic, the approval authority should accept a reasonable adjustment of the original plan for monitoring each In-Service Monitoring Engine Grouping (ISM Group).
- (4) The amendments set out in this Regulation should not influence the monitoring of gaseous pollutant emissions from in-service internal combustion engines with power between 56 kW and 560 kW (sub-categories NRE-v-5 and NRE-v-6). For those sub-categories the changes introduced are limited to administrative adjustments that

³ OJ L 252, 16.9.2016, p. 53.

⁴ 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 (OJ L 102, 13.4.2017, p. 334).

include their inclusion in an ISM Group, thus irrelevant for that monitoring. It is therefore appropriate that EU type-approvals of an engine type or engine family approved in accordance with Delegated Regulation (EU) 2017/655 before the day of entry into force of this Regulation remain valid.

- (5) Taking into account that the procedures for determining reference work and reference CO₂ mass and calculating the instantaneous proxy power from CO₂ mass flow are not sufficiently detailed to enable their consistent implementation by manufacturers and approval authorities, those requirements should be further clarified to ensure they are carried out in a harmonised way.
- (6) Delegated Regulation (EU) 2017/655 should therefore be amended accordingly,

HAS ADOPTED THIS REGULATION:

Article 1

Amendments to Delegated Regulation (EU) 2017/655

Delegated Regulation (EU) 2017/655 is amended as follows:

- (1) In Article 2, paragraph 1 is replaced by the following:
 - ‘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 and NRG (all sub-categories);
 - (b) NRS-vi-1b, NRS-vr-1b, NRS-v-2a, NRS-v-2b and NRS-v-3;
 - (c) IWP and IWA (all sub-categories);
 - (d) RLL and RLR (all sub-categories);
 - (e) ATS;
 - (f) SMB;
 - (g) NRSh (all sub-categories);
 - (h) NRS-vi-1a and NRS-vr-1a.’;
- (2) Article 3 is replaced by the following:

“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 as follows:

- (a) For those engines referred to in Article 2(1), points (a) to (f), monitoring shall be conducted in accordance with the Annex to this Regulation.
- (b) For those engines referred to in Article 2(1), points (g) and (h):
 - (i) the Annex to this Regulation shall not apply.
 - (ii) the aging procedure used to establish the deterioration factor (DF) for the engine type, or, where applicable the engine family, as required by

section 4.3 of Annex III to Commission Delegated Regulation (EU) 2017/654*, including any automated element, shall be designed to allow the manufacturer to appropriately predict the in-use emission deterioration expected over the emission durability period (EDP) of those engines under typical use.

(iii) the Commission shall, every 5 years, in cooperation with manufacturers, conduct a pilot programme involving the most recent engine types in order to ensure that the procedure to determine DFs set out in section 4 of Annex III to Delegated Regulation (EU) 2017/654* remains suitable and effective to control pollutant emissions over the useful life of engines.

* Commission Delegated Regulation (EU) 2017/654 of 19 December 2016 supplementing Regulation (EU) 2016/1628 of the European Parliament and of the Council with regard to technical and general requirements relating to emission limits and type-approval for internal combustion engines for non-road mobile machinery (OJ L 102, 13.4.2017, p. 1).’;

(3) in Article 3a, the following paragraph 3 is added:

‘3. EU type-approvals of an engine type or engine family approved in accordance with this Regulation before [*PO please insert the date of the day of entry into force of this Regulation*] shall remain valid.’;

(4) the Annex to Delegated Regulation (EU) 2017/655 is amended in accordance with the Annex to this Regulation.

Article 3

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.

Done at Brussels,

*For the Commission
The President
Ursula von der Leyen*