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#### COVER NOTE

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From: Secretary-General of the European Commission,  
signed by Mr Jordi AYET PUIGARNAU, Director

date of receipt: 19 December 2016

To: Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of  
the European Union

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Subject: COMMISSION DELEGATED REGULATION (EU) .../... of 19.12.2016  
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

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Delegations will find attached document C(2016) 8383 final.

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Encl.: C(2016) 8383 final



Brussels, 19.12.2016  
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**COMMISSION DELEGATED REGULATION (EU) .../...**

**of 19.12.2016**

**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)

## 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.

Engines installed in NRMM contribute significantly to air pollution and are accountable for roughly 15% of the nitrogen oxide (NO<sub>x</sub>) and 5% of the particulate matter (PM) emissions in the EU. Pollutant emissions are a problem not only for the air quality but primarily for the health of people.

Type-approval requirements applying to engines installed in NRMM are set out in Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery<sup>1</sup>.

In the legislative process leading to the adoption of 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<sup>2</sup>, which will apply as from first January 2017, the following key concerns as regards the current provisions for the type-approval of engines to be installed in NRMM were addressed:

- reducing the complexity of the current legal framework by replacing and repealing the currently extremely complex Directive that comprises 15 Annexes and has been amended in eight occasions;
- addressing health-damaging effects of ultrafine particulate matter by the inclusion of emission limits for particular number (PN) and particulate mass (PM);
- aligning the gaseous pollutant emission limits with (higher) US EPA standards, where applicable;
- extending the scope to cover smaller (<19kW) and larger (>560kW) combustion engines and larger spark-ignition engines (>19kW);
- extending the scope to cover engines for Snowmobiles, All-Terrain Vehicles (ATV's), Side-by Side vehicles (SbS) and generating sets;
- extending the scope to cover gas-fuelled engines (partial/mono);
- simplifying the categorisation of engines;

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<sup>1</sup> OJ L 59, 27.2.1998, p. 1

<sup>2</sup> OJ L 252, 16.9.2016, p. 53.

- simplifying the application of the legislation to stage V in accordance with three sets of engine categories;
- simplifying the transitional provisions for engines type-approved under Directive 97/68/EC;
- providing for a new system for the electronic exchange of data and information between type-approval authorities on type-approved engines (Internal Market Information System);
- making public the basic information on the type-approved engines (Internal Market Information System);
- clear identification of those engines subject to exemptions or benefiting from special transitional provisions;
- the application of harmonised and enhanced market-surveillance provisions to NRMM engines;
- setting up relevant obligations on the Original Equipment Manufacturer (OEM); and
- the monitoring of gaseous pollutant emissions of in-service engines operated during their normal operating duty cycles to determine to which extent the emissions measured from the test cycle correspond to the actual operation

Based on the empowerments in Regulation (EU) 2016/1628, this delegated act sets out the new requirements regarding the monitoring of gaseous pollutant emissions of in-service internal combustion engines installed on non-road mobile machinery.

## **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.

Discussions with stakeholders for preparing the delegated act started in February 2015 at the level of four sub-groups of the main NRMM stakeholder group, Expert Group on Emissions from non-road mobile machinery engine (GEME). One these sub-working groups has specifically contributed to the discussions on the content of this delegated act, and in particular to defining the detail arrangements with regard to the selection of engines, testing procedures and reporting of results when measuring emissions of in-service engines.

This act has been subject to a public consultation through the Better Regulation Portal from 10 November to 8 December 2016; comments received have been duly considered.

## **3. LEGAL ELEMENTS OF THE DELEGATED ACT**

The legal basis of this delegated act is 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.

The use of a Regulation is considered to be appropriate in that it provides the required assurance for compliance while not requiring transposition into Member States' legislation.

Regulation (EU) 2016/1628 uses the 'split-level approach' originally introduced at the request of the European Parliament and used in other legislation for EU type-approval of motor vehicles. This approach provides for legislation in three steps:

- the fundamental provisions and scope are laid down by the European Parliament and the Council in Regulation (EU) 2016/1628 based on Article 114 of TFEU in accordance with the ordinary legislative procedure;
- the technical specifications associated with the fundamental provisions are laid down in two delegated acts (Article 290 of TFEU):
  - (a) a Regulation with regard to technical and general requirements relating to emission limits and type-approval for internal combustion engines for non-road mobile machinery;
  - (b) a Regulation with regard to monitoring of emissions of in-service internal combustion engines installed on non-road mobile machinery, containing requirements regarding:
    - (1) General requirements for in-service monitoring
    - (2) Plan for monitoring in-service engines
    - (3) Test conditions
    - (4) Data sampling methods
    - (5) Test procedures and data validation
    - (6) Test data availability
    - (7) Confirmatory test
    - (8) Reporting procedures
    - (9) Portable Emissions Measurement System (PEMS) requirements
    - (10) Test procedure for in-service monitoring with a PEMS
    - (11) Data pre-processing for emissions calculations
    - (12) Valid data for emissions calculations
    - (13) Emissions calculations
    - (14) Conformity of the Electronic Control Unit (ECU) torque signal

(15) Electronic Control Unit (ECU) data stream information requirements;

- (c) a Commission Implementing Regulation sets out the administrative requirements relating to emission limits and type-approval of internal combustion engines for non-road mobile machinery in accordance with Regulation (EU) 2016/1628 of the European Parliament and of the Council – C(2016) 8382.

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

**of 19.12.2016**

**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<sup>3</sup>, 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

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<sup>3</sup> OJ L 252, 16.9.2016, p. 53.

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.

### *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.

Done at Brussels, 19.12.2016

*For the Commission*  
*The President*  
*Jean-Claude JUNCKER*