

*[Changes compared to document ST 12639/23 published on 15 September 2023 are marked in yellow]*

## Chapter I – Subject matter, scope and definitions

### *Article 3* **Definitions**

For the purposes of this Regulation, definitions in Regulation (EU) 2018/858 apply.

For the purposes of this Regulation, the following definitions apply:

[...]

**(14a) ‘particle number above 23 nm’ or ‘PN<sub>23</sub>’ means the total number of solid particles emitted from the tailpipe or the brakes that have an aerodynamic diameter larger or equal than 23 nm;**

*[NB: A new definition (14a) to be added to the text in order to be consistent with Annex I, Tables 1 and 2.]*

## Chapter II – Manufacturers' obligations

### Article 6

#### Durability requirements for vehicles, systems, components and separate technical units

[...]

The OBM systems installed by the manufacturer in these vehicles shall be capable of all of the following:

- (a) **monitoring and** registering ~~the magnitude and duration of all~~ **exhaust emissions exceedances of NO<sub>x</sub>, NH<sub>3</sub> and PM<sub>2.5</sub>, and detecting exceedances of 2.5 times the exhaust emission limit or higher in case exhaust emission limit values for the testing of NO<sub>x</sub>, NH<sub>3</sub> and PM exist in Annex I;**

*[NB: A new wording on OBM to be added to the text in order to align in-use emission control with the list of pollutants in Annex I, Table 1.]*

## Chapter III – Obligations of Member States for emission type-approval and market surveillance

### Article 10

#### Emission type-approval, conformity of production, in-service conformity and market surveillance

[...]

**3a. With effect from ~~24~~ 30 months after entry into force of this Regulation, approval authorities shall, on grounds relating to CO<sub>2</sub> and pollutant emissions, fuel and electric energy consumption or battery durability, in the case of new types of M<sub>1</sub>, N<sub>1</sub> vehicles, refuse to grant EU emission type-approval or national emission type-approval which do not comply with this Regulation.**

4. With effect from ~~1 July 2025~~ **42 months after entry into force of this Regulation**, national authorities shall, in the case of new M<sub>1</sub>, N<sub>1</sub> vehicles which do not comply with this Regulation consider certificates of conformity to be no longer valid for the purposes of registration and shall, on grounds relating to CO<sub>2</sub> and pollutant emissions, fuel and **electric** energy consumption or battery durability, prohibit the registration, sale or entry into service of such vehicles.

[...]

*[NB: New application dates to be added to the text in order, together with the Commission's obligation in Article 14(7), to ensure 18 months lead time for the industry in case of new types of M<sub>1</sub>, N<sub>1</sub> vehicles and 30 months lead time for the rest of M<sub>1</sub>, N<sub>1</sub> vehicles.]*

*Article 11*

**Specific obligations of Member States concerning the emission type-approval of systems, components and separate technical units**

1. With effect from ~~1 July 2025~~ **24 30 months after entry into force of this Regulation**, the sale or installation of a system, component or separate technical unit intended to be fitted on an M<sub>1</sub>, N<sub>1</sub> vehicle approved under this Regulation, shall be prohibited if the system, component and separate technical unit is not of type approved in compliance with this Regulation.

*[NB: New application dates to be added to the text in order, together with the Commission's obligation in Article 14(7), to ensure 18 months lead time for the industry in case of systems, components and separate technical units intended to be fitted on M<sub>1</sub>, N<sub>1</sub> vehicles.]*

## **Chapter VI- General Provisions**

*Article 18*

**Reporting**

[...]

6. **By 31 December 2027, the Commission shall submit to the European Parliament and to the Council a report on brake particle emissions reviewing measuring methods and state-of-the-art, in view of the delegated acts referred to in Article 15(2)(a) on the level of the second stage emission limits set out in Table 5 of Annex I.**

*[NB: New reporting requirement for brake particle emissions to be added to the text.]*

[...]

*Article 20*

**Entry into force and application**

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

It shall apply from ~~1 July 2025~~ **24 30 months after entry into force of this Regulation** for M<sub>1</sub>, N<sub>1</sub> vehicles and components and separate technical units for those vehicles and from ~~1 July 2027~~ **48 months after entry into force of this Regulation** for M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub>, N<sub>3</sub> vehicles and components and separate technical units for those vehicles and O<sub>3</sub>, O<sub>4</sub> trailers.

*[NB: See justifications for Articles 10 and 11.]*

# ANNEX I

## EURO 7 EMISSION LIMITS

Table 1: Euro 7 exhaust emission limits for M<sub>1</sub>, N<sub>1</sub> vehicles with internal combustion engine

		Mass in running order (MRO) (kg)	Mass of carbon monoxide (CO)		Mass of total hydrocarbons (THC)		Mass of non-methane hydrocarbons (NMHC)		Mass of oxides of nitrogen (NO <sub>x</sub> )		Combined mass of total hydrocarbons and oxides of nitrogen (THC + NO <sub>x</sub> )		Mass of particulate matter (PM)		Number of particles (PN <sub>10-23</sub> )	
			L <sub>1</sub> (mg/km)		L <sub>2</sub> (mg/km)		L <sub>3</sub> (mg/km)		L <sub>4</sub> (mg/km)		L <sub>2</sub> + L <sub>4</sub> (mg/km)		L <sub>5</sub> (mg/km)		L <sub>6</sub> (#/km)	
Category	Class		PI	CI	PI	CI	PI	CI	PI	CI	PI	CI	PI <sup>20</sup>	CI	PI <sup>20</sup>	CI
M <sub>1</sub>	-		1000	500	100	≐	68	≐	60	80	≐	170	4.5	4.5	6x10 <sup>11</sup>	6x10 <sup>11</sup>
N <sub>1</sub>	I	MRO < 1280	1000	500	100	≐	68	≐	60	80	≐	170	4.5	4.5	6x10 <sup>11</sup>	6x10 <sup>11</sup>
	II	1280 < MRO < 1735	1810	630	130	≐	90	≐	75	105	≐	195	4.5	4.5	6x10 <sup>11</sup>	6x10 <sup>11</sup>
	III	1735 < MRO	2270	740	160	≐	108	≐	82	125	≐	215	4.5	4.5	6x10 <sup>11</sup>	6x10 <sup>11</sup>

<sup>0</sup> Positive ignition particulate mass and number limits shall apply only to vehicles with direct injection engines.

Table 2: Euro 7 exhaust emission limits for M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub> and N<sub>3</sub> vehicles with internal combustion engine and internal combustion engines used in those vehicles

Pollutant emissions	<u>WHSC (CI) and WHTC (CI and PI)</u>	<u>Cold emissions<sup>1</sup></u>	<u>Hot emissions<sup>2</sup></u>	<u>Emission budget for all trips less than 3*WHTC long</u>	<u>Real Driving Emissions (RDE)</u>	<u>Optional idle emission limits<sup>3</sup></u>
	<i>per kWh</i>	<i>per kWh</i>	<i>per kWh</i>	<i>per kWh</i>	<i>per kWh</i>	<i>per hour</i>
NO <sub>x</sub> in mg	<u>230</u>	350	90	150	<u>300</u>	<b>5000</b>
PM in mg	<u>8</u>	12	8	10	÷	
PN <sub>10 23</sub> in #	<u><math>6 \times 10^{11}</math></u>	$5 \times 10^{11}$	$2 \times 10^{11}$	$3 \times 10^{11}$	<u><math>9 \times 10^{11}</math></u>	
CO in mg	<u>1500</u>	3500	200	2700	<u>1950</u>	
NMOG in mg	<u>80</u>	200	50	75	<u>105</u>	
NH <sub>3</sub> in mg	<u>65</u>	65	65	70	<u>85</u>	
CH <sub>4</sub> in mg	<u>500</u>	500	350	500	<u>650</u>	
N <sub>2</sub> O in mg	<u>200</u>	160	100	140	<u>260</u>	
HCHO in mg	<u>30</u>	<b>30</b>	<b>30</b>		<u>40</u>	

<sup>1</sup> Cold emissions refers to the 100<sup>th</sup> percentile of moving windows (MW) of 1 WHTC for vehicles, or WHTC<sub>cold</sub> for engines

<sup>2</sup> Hot emission refers to the 90<sup>th</sup> percentile of moving windows (MW) of 1 WHTC for vehicles or WHTC<sub>hot</sub> for engines

<sup>3</sup> Applicable only if a system is not present that automatically shuts down the engine after 300 seconds of continuous idling operation (once the vehicle is stopped and brakes applied).

*[NB: Changes to be included in the text in order to ensure consistency with Euro 6/VI.]*

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