

परंतु कि सीईवी स्टेज IV या सीईवी स्टेज V को लागू किए जाने की तारीख से पूर्व विनिर्मित वाहनों को इस नियम के संबंधित कार्यान्वयन की तारीख के पश्चात छह मास तक रजिस्टर किया जाएगा”।

[सं. आरटी-11028/22/2016-एमवीएल]

प्रियांक भारती, संयुक्त सचिव

टिप्पण : मूल नियम भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (i) में अधिसूचना संख्याक सा.का.नि. 590 (अ), तारीख 2 जून, 1989 द्वारा प्रकाशित किए गए थे और अधिसूचना संख्यांक सा.का.नि. 594 (अ), तारीख 29 सितंबर, 2020 द्वारा उनका अंतिम रूप से संशोधन किया गया था।

MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

NOTIFICATION

New Delhi, the 30th September, 2020

G.S.R. 598(E).—Whereas, the draft rules further to amend the Central Motor Vehicles Rules, 1989 were published, as required under sub-section (1) of section 212 of the Motor Vehicles Act, 1988 (59 of 1988), *vide* notification of the Government of India in the Ministry of Road Transport and Highways *vide* number G.S.R 491(E), dated the 05th August, 2020, in the Gazette of India, Extraordinary, Part II, Section (3), Sub-section (i), inviting objections and suggestions from all persons likely to be affected thereby before the expiry of the period of thirty days from the date of which copies of the Gazette containing the said notification were made available to the public;

And whereas, copies of the said Gazette notification were made available to the public on 05th August, 2020;

And whereas, the objections and suggestions received from the public in respect of the said draft rules have been considered by the Central Government;

Now, therefore, in exercise of the powers conferred by section 110 of the Motor Vehicles Act, 1988 (59 of 1988), the Central Government hereby makes the following rules further to amend the Central Motor Vehicles Rules, 1989, namely:-

1.Short title and commencement. -(1) These rules may be called as Central Motor Vehicles (Thirteenth Amendment) Rules, 2020.

(2) Save as otherwise provided in the rules they shall come into force on the date of their publication in the Official Gazette.

2. In the Central Motor Vehicle Rules, 1989, in rule 115A, for sub-rule (9), the following sub-rules shall be substituted, namely:-

“(9) Every agricultural tractor, power tiller and combine harvester shall be so manufactured that it complies with the following standards of gaseous pollutants emitted by them when tested on following duty cycle, namely :-

(a) for variable-speed engines, the 8-mode test cycle or the corresponding ramped modal cycle and the transient cycle Non Road Transient Cycle (NRTC);

(b) for constant-speed engines, the 5-mode test cycle or the corresponding ramped modal cycle;

(c) emissions (g/kWh) shall be measured over applicable emission limit for Non-Road Safety Cycle (NRSC) and Non-Road Transient Cycle (NRTC) test cycle as per test applicability mentioned in Table 1 and Table 2 given below and for NRTC test cycle, composite weighted emissions shall be computed by

weighing the cold start results 10 per cent. and the hot start results 90 per cent. weighted composite results shall meet the limits given in said- tables

Table 1

(TREMStage – IV)

Applicable emission limit for Non-Road Steady Cycle (NRSC) and Non-Road Transient Cycle (NRTC) test cycle

	Applicable with effect from	CO	HC	NOx	PM	Test Cycle*
Category, kW		g/ kWh				
$37 \leq P < 56$	1st October, 2021	5.0	4.7 (HC+NOx)		0.025	NRSC and NRTC
$56 \leq P < 130$		5.0	0.19	0.4	0.025	
$130 \leq P < 560$		3.5	0.19	0.4	0.025	

*Test cycle as described in AIS: 137 and as amended from time to time.

Table 2

(TREM Stage –V)

Applicable emission limit for Non-Road Steady Cycle (NRSC) and Non-Road Transient Cycle (NRTC) test cycle

	Applicable with effect from	CO	HC	NOx	PM	PN	Test cycle
Category, kW		g/ kWh				#/kWh	
$P < 8$	1st April, 2024	8.0	7.5 (HC+NOx)		0.4	----	NRSC
$8 \leq P < 19$		6.6	7.5 (HC+NOx)		0.4	-----	
$19 \leq P < 37$		5.0	4.7 (HC+NOx)		0.015	1×10^{12}	NRSC and NRTC
$37 \leq P < 56$		5.0	4.7 (HC+NOx)		0.015	1×10^{12}	
$56 \leq P < 130$		5.0	0.19	0.4	0.015	1×10^{12}	
$130 \leq P < 560$		3.5	0.19	0.4	0.015	1×10^{12}	
$P \geq 560$		3.5	0.19	3.5	0.045	-----	NRSC

Note:- (i) The test shall be done on engine dynamometer

(ii) The test procedure for measurement of gross power (without Fan) shall be as per procedure laid down in AIS: 137 and as amended time to time.

(iii) For gross power measurement the tolerance shall be applied for type approval and conformity of production as per Table 3 given below –

Table 3

Engine Type	Rated power [%]	Other measurement points on the curve [%]	Tolerance for engine speed [%]
Type approval	± 2	± 4	± 1.5
Conformity of production	± 5	± 10	± 5

(iv) Test procedure for measurement of emission of visible and gaseous pollutant and particulate matter shall be as per procedure laid down in AIS: 137 and as amended from time to time.

(v) The emission of visible pollutant (smoke) shall not exceed the limit values of smoke density when expressed as light absorption coefficients as given in Annexure I of sub- rule (9) of rule 115, when tested on engine dynamometer at full load at six speeds as per procedure laid down in AIS: 137 and as amended from time to time.

(vi) (a) Engine manufacture may opt for an engine test as mentioned in table 4 given below for evaluating deterioration factors as per procedure laid down in AIS:137 and as amended from time to time-

Table 4

Category (Power Band)	Emission durability period (hours)
≤ 37kW (constant speed Engines)	3000
≤ 37kW (Variable speed Engines)	5000
> 37 kW	8000

(b) As an alternative to use a service accumulation schedule to determine deterioration factors, engine manufacturers may select to use the assigned multiplicative deterioration factors as per Table 5 given below-

Table 5

Test cycle	CO	HC	NO _x	PM
NRSC	1.3	1.3	1.15	1.05
NRTC	1.3	1.3	1.15	1.05

(vii) Conformity of Production (COP) frequency and selection procedure shall be as per procedure laid down in AIS: 137 and as amended time to time.

(viii) For Conformity of Production (COP),-

- (a) for agricultural tractor and combine harvester with annual production or Import up to 200 nos (per engine family), it shall be once in two years per family or model.
- (b) for agricultural tractor and combine harvester equipment with annual production or Import exceeding 200 nos (per engine family), it shall be once in every year per family or model.

(ix) For Conformity of Production (COP), the sampling size shall be one day's average production subject to a minimum of 10 and maximum of 100:

Provided that for engine family produced less than 200 in the yearly period sample size may be one.

(x) For Type approval and Conformity of Production (COP) test, fuel shall be Reference fuel or commercial fuel as specified in Annexure IV-T and Annexure IV-V of sub-rule (8) of rule 115.

(xi) The vehicles specified in this rule fitted with engine, which rely on the use of a reagent in order to reduce emissions, shall ensure the correct operation of NO_x control measures, as per procedure laid down in AIS:137 and as amended from time to time.

(xii) Emission of ammonia over the NRTC and NRSC for engines equipped with SCR shall not exceed a mean value of 25 ppm for engine power category less than or equal to 56 kW and 10 ppm for engine power category above 56 kW.

(xiii) The diesel engine NO_x reduction agent AUS: 32 (Aqueous Urea Solution) shall conform to part 1 and part 2 of ISO: 22241.

(xiv) The vehicles specified under this rule and manufactured after the 1st April 2026 shall be monitored for gaseous pollutant emission from in-service internal combustion engines installed on vehicles, as per procedure laid down in AIS: 137 and as amended from time to time.

(xv) The engine or vehicle fitted with engines shall be affixed with a conformance label meeting the requirements as specified in AIS: 137 and as amended from time to time.

(xvi) For the vehicles specified under this rule, the emission sampled within the control area as per procedure laid down in AIS-137 and as amended from time to time, shall not exceed more than two times the limit values of the emission specified in Table 1 and Table 2 for TREM stage IV and TREM Stage-V, respectively:

Provided that the vehicles manufactured before the date of applicability of Emission TREM Stage - IV or TREM Stage - V, respectively, shall be registered up to six months after the respective date of implementation of this rule.”.

(10) Every construction equipment vehicle shall be so manufactured that it complies with the following standards of gaseous pollutants emitted by them when tested on following duty cycle, namely :-

- (a) for variable-speed engines, the 8-mode test cycle or the corresponding ramped modal cycle and the transient cycle Non Road Transient Cycle (NRTC);
- (b) for constant-speed engines, the 5-mode test cycle or the corresponding ramped modal cycle;
- (c) emissions (g/kWh) shall be measured over applicable emission limit for Non-Road Safety Cycle (NRSC) and Non-Road Transient Cycle (NRTC) test cycle as per test applicability mentioned in Table 1 and Table 2 given below and for NRTC test cycle, composite weighted emissions shall be computed by weighing the cold start results 10 per cent. and the hot start results 90 per cent. weighted composite results shall meet the limits given in said- tables.

Table 1

(CEV Stage- IV)

Applicable emission limit for Non-Road Steady Cycle (NRSC) and Non-Road Transient Cycle (NRTC) test cycle

	Applicable with effect from	CO	HC	NOx	PM	Test Cycle*
Category, kW		g/ kWh				
$37 \leq P < 56$	1st April, 2021	5.0	4.7 (HC+NOx)		0.025	NRSC and NRTC
$56 \leq P < 130$		5.0	0.19	0.4	0.025	
$130 \leq P < 560$		3.5	0.19	0.4	0.025	

*Test cycle as described in AIS: 137 and as amended from time to time.

Table 2

(CEV Emission Stage- V)

Applicable emission limit for Non-Road Steady Cycle (NRSC) and Non-Road Transient Cycle (NRTC) test cycle

	Applicable with effect from	CO	HC	NOx	PM	PN	Test cycle
Category, kW		g/ kWh				#/kWh	
$P < 8$	1st April, 2024	8.0	7.5 (HC+NOx)		0.4	----	NRSC
$8 \leq P < 19$		6.6	7.5 (HC+NOx)		0.4	-----	
$19 \leq P < 37$		5.0	4.7(HC+NOx)		0.015	1×10^{12}	NRSC and NRTC
$37 \leq P < 56$		5.0	4.7 (HC+NOx)		0.015	1×10^{12}	
$56 \leq P < 130$		5.0	0.19	0.4	0.015	1×10^{12}	
$130 \leq P < 560$		3.5	0.19	0.4	0.015	1×10^{12}	
$P \geq 560$		3.5	0.19	3.5	0.045	-----	NRSC

Note:-(i) For gasoline multi-utility industrial power sweepers, provisions as per Sub-rule (8) of 115A shall continue to be applicable till next level norms are notified.

(ii) The test shall be done on engine dynamometer.

(iii) The test procedure for measurement of gross power (without Fan) shall be as per procedure laid down in AIS: 137 and as amended time to time.

(iv) For gross power measurement the tolerance shall be applied for type approval and conformity of production as per Table 3 given below –

Table 3

Engine Type	Rated power [%]	Other measurement points on the curve [%]	Tolerance for engine speed [%]
Type approval	±2	±4	±1.5
Conformity of production	±5	±10	±5

(v) Test procedure for measurement of emission of visible and gaseous pollutant and particulate matter shall be as per procedure laid down in AIS: 137 and as amended from time to time.

(vi) The emission of visible pollutant (smoke) shall not exceed the limit values of smoke density when expressed as light absorption coefficients as given in Annexure I of sub- rule (9) of rule 115, when tested on engine dynamometer at full load at six speeds as per procedure laid down in AIS: 137 and as amended from time to time.

(vii) (a) Engine manufacture may opt for an engine test as mentioned in table 4 given below for evaluating deterioration factors as per procedure laid down in AIS:137 and as amended from time to time-

Table 4

Category (Power Band)	Emission durability period (hours)
≤ 37kW (constant speed Engines)	3000
≤ 37kW (Variable speed Engines)	5000
> 37 kW	8000

(b) As an alternative to use a service accumulation schedule to determine deterioration factors, engine manufacturers may select to use the assigned multiplicative deterioration factors as per Table 5 given below

Table 5

Test cycle	CO	HC	NO _x	PM
NRSC	1.3	1.3	1.15	1.05
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(viii) Conformity of Production (COP) frequency and selection procedure shall be as per procedure laid down in AIS: 137 and as amended time to time.

(ix) For Conformity of Production (COP),-

- for construction equipment vehicle with annual production or Import up to 200 nos (per engine family), it shall be once in two years per family or model.
- for construction equipment vehicle with annual production or Import exceeding 200 nos (per engine family), it shall be once in every year per family or model.

(x) For Conformity of Production (COP), the sampling size shall be one day's average production subject to a minimum of 10 and maximum of 100:

Provided that for engine family produced less than 200 in the yearly period sample size may be one.

(xi) For Type approval and Conformity of Production (COP) test, fuel shall be Reference fuel or commercial fuel as specified in Annexure IV-T and Annexure IV-V of sub-rule (18) of rule 115.

(xii) The vehicles specified in this rule fitted with engine, which rely on the use of a reagent in order to reduce emissions, shall ensure the correct operation of NO_x control measures, as per procedure laid down in AIS:137 and as amended from time to time.

(xiii) Emission of ammonia over the Non- road transient cycle (NRTC) and non-road steady cycle (NRSC) for engines equipped with SCR (selective catalytic reduction) shall not exceed a mean value of 25 ppm for engine power category less than or equal to 56 kW and 10 ppm for engine power category above 56 kW.

(xiv) The diesel engine NO_x reduction agent AUS: 32 (Aqueous Urea Solution) shall conform to part 1 and part 2 of ISO: 22241.

(xv) The vehicles specified under this rule and manufactured after the 1st April 2026 shall be monitored for gaseous pollutant emission from in-service internal combustion engines installed on vehicles, as per procedure laid down in AIS: 137 and as amended from time to time.

(xvi) The engine or vehicle fitted with engines shall be affixed with a conformance label meeting the requirements as specified in AIS: 137 and as amended from time to time.

(xvii) For the vehicles specified under this rule, the emission sampled within the control area as per procedure laid down in AIS-137 and as amended from time to time, shall not exceed more than two times the limit values of the emission specified in Table 1 and Table 2 for CEV stage IV and CEV stage V, respectively:

Provided that the vehicles manufactured before the date of applicability of CEV Stage- IV or CEV Stage- V, respectively, shall be registered up to six months after the respective date of implementation of this rule.”

[No.RT-11028/22/2016-MVL]

PRIYANK BHARTI, Jt. Secy.

Note: The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) vide notification number G.S.R. 590(E), dated the 2nd June, 1989 and last amended vide notification number G.S.R 594(E) dated 29th September, 2020.