

REGULATION No. 51  
(Noise of M and N categories of vehicles)Japanese Position on new limit values for 03 series of amendments to Regulation No. 51Submitted by the experts from Japan

The following table shows the Japanese Position on new limit values for 03 series of amendments to Regulation No.51. As these limit values are based on the TNO assessment study and German proposal, sub-categories proposed by Japan and database of noise level of Japanese vehicle are considered.

<b>Japanese position on limit values, sub-categories and transitional provisions for ECE R51.03, new vehicle types</b>					
	Stage 1	Stage 2		Stage 3 <sup>2</sup>	
	2 years after entry into force of ECE R51.03 Limit [dB(A)]	4 years after stage 1 Limit [dB(A)]	6 years after stage 1 Limit [dB(A)]	[4] years after stage 2 Limit [dB(A)]	[6] years after stage 2 Limit [dB(A)]
<b>M1</b>	PMR ≤ 120 kW/t	72	70	-	[68]
	120 < PMR ≤ 160 kW/t	73	71	-	[69]
	PMR > 160 kW/t	75	73	-	[71]
<b>M2</b>	GVW ≤ 3.5 ton	74	72	-	[70]
	3.5 ton < GVW	75	-	73	-
<b>M3</b>	P ≤ 125 kW	76	-	74	-
	125 < P ≤ 250 kW	79	-	78	-
	P > 250 kW	80	-	78	-
<b>N1</b>	GVW ≤ 2.5 ton and PMR(GVW) <sup>1</sup> ≤ 35kW/t	74	-	72	-
	GVW ≤ 2.5 ton and 35kW/t < PMR(GVW) <sup>1</sup>	72	70	-	[68]
	2.5 to < GVW ≤ 3.5 to	74	72	-	[70]
<b>N2</b>	P ≤ 125 kW	78	-	76	-
	P > 125 kW	79	-	77	-
<b>N3</b>	P ≤ 250 kW	80	-	78	-
	P > 250 kW	81	-	79	-

Off-Road vehicles "G" for all categories +1 dB(A)

1 "PMR(GVW)" means PMR calculated by using the maximum authorized vehicle mass.

2 Limit values and entry-into-force dates of "Stage 3" shall be reviewed and fixed until the

entry-into-force date of “Stage 2”.

#### Justification

Sub-categories are original from the Japanese proposals, which were submitted at last GRB session. Considering M3 three sub-categories proposed by ACEA and Germany, Japan agrees with their concept and sets small M3 bus sub-category, that is, up to 125kW, which comes from the threshold of N2 sub-categories.

Japan has analyzed the Monitoring database, which consists of 856 vehicles, as well as the Japanese database, which consists of 186 domestic vehicles, classified by Japanese proposal sub-categories. The limit values of Stage 1 are around 10% cut-off level, while those of Stage 2 are around 30% or more.

“3 stage” approach, which Germany proposed, is very ambitious but has clear message for enforcing the vehicle noise level. Because of the uncertainty of noise reduction technology advance, as well as other regulations which might influence on noise, such as exhaust gas and CO2 emission regulations, Japan shows the temporary limit values and entry-into-force dates of stage 3, which shall be reviewed and fixed until the entry-into-force date of Stage 2.

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