

Agenda Item No. 2 (e)

The Punjab Environmental Quality Standards for Motor Vehicle Exhaust and Noise

(i) For In-use Vehicles

No	Parameter	Standards (maximum permissible limit)	Measuring methods	Applicability
1	2	3	4	5
1	Smoke	40% or 2 on the Ringlemann Scale during engine acceleration mode	To be compared with Ringlemann Chart at a distance of 6 meters or more	Immediate effect
2	Carbon Monoxide	6%	Under idling conditions: Non dispersive infrared detection through gas analyzer	
3	Noise	85 dB(A)	Sound-meter at 7.5 meter from the source	

(ii) For New Vehicle

EMISSION STANDARDS FOR DIESEL VEHICLES

(a) For Passenger Cars and Light Commercial Vehicles (g/Km)

Type of Vehicle	Category/Class	Tiers	CO	HC+NO_x	PM	Measuring method	Applicability
1	2	3	4	5	6	7	8
Passenger Cars	M1: with reference mass (RW) upto 2500kg.	Pak-II IDI	1.0	0.7	0.08		All imported and local manufactured diesel vehicles with effect from

	Cars with RW over 2500kg. to meet NI category standards	Pak-II DI	1.0	0.9	0.10	NEDC (ECE 15+EUDCL)	01-07-2012
Light Commercial Vehicles	NI-I(RW<1250kg)	Pak-II, IDI	1.0	0.70	0.08		
		Pak-II, DI	1.0	0.90	0.10		
	NI-II(1250kg< RW<1700kg)	Pak-II, IDI	1.25	1.0	0.12		
		Pak-II, DI	1.25	1.3	0.14		
	NI-III(RW>1700kg)	Pak-II, IDI	1.50	1.2	0.17		
		Pak-II, DI	1.50	1.6	0.20		

Parameters Standards measuring methods (maximum permissible limit)

85 dB(A)	Sound-meter at 7.5 meters from the source
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(b) For Heavy Duty Diesel Engine and Large Goods Vehicles (g/Kwh)

Type of Vehicle	Category /Class	Tiers	CO	HC	NOx	PM	Measuring method	Applicability
1	2	3	4	5	6	7	8	9
Heavy Duty Diesel Engine	Trucks & Buses	Pak-II	4.0	1.1	7.0	0.15	ECE-R-49	All imported and local manufactured diesel vehicles with effect from 01-07-2012
Large	N2(2000 and	Pak-II	4.0	1.1	7.0	0.15	ECD	

Goods Vehicles	up)							
Parameters	Standards (maximum permissible limit) measuring methods							
Noise	85 dB(A)						Sound-meter at 7.5 meters from the source	

EMISSION STANDARDS FOR PETROL VEHICLES (g/km)

Type of Vehicle	Category/Class	Tiers	CO	HC+NOx	Measuring method	Applicability
1	2	3	4	5	6	7
Passenger Cars	M1: with reference mass (RW) upto 2500kg. Cars with RW over 2500kg. to meet NI category standards	Pak-II	2.20	0.5	NEDC(ECE+15+EUD CL)	All imported and local manufactured petrol vehicles with effect from 01-07-2009
Light Commercial Vehicles	NI-I(RW<1250kg)	Pak-II	2.20	0.5		
	NI-II(1250kg<RW<1700kg)	Pak-II	4.0	0.65		

	NI-III(RW>1700kg)	Pak-II	5.0	0.08		
Motor Rickshaws & Motor Cycles	2,4 strokes<150cc	Pak-II	5.5	1.5	ECER	
	2,4 strokes>150cc	Pak-II	5.5	1.3		
Parameters	Standards (maximum permissible limit)					measuring methods
Noise	85 dB(A)					Sound-meter at 7.5 meters from the source

Explanations:

DI: Direct Injection

IDI: Indirect Injection

EUDCL: Extra Urban Driving Cycle

NEDC: New European Driving Cycle

ECE: Urban Driving Cycle

M: Vehicles designed and constructed for the carriage of passengers and comprising

no more than eight seats in addition to the driving seat.

N: Motor vehicles with at least four wheels designed and constructed for the carriage of goods

* Now Model mean both model and design type change

** The existing Model of petrol driven vehicles locally manufactured with immediately switched over to Pak-II emission standards but not later than 30th June 2012