

Light-Duty Vehicles, Light-Duty Trucks, and Medium-Duty Passenger Vehicles: Tier 2 Exhaust Emission Standards and Implementation Schedule

	Standard	Emission Limits at 50,000 miles					Emission Limits at Full Useful Life (120,000 miles) ^a				
		NOx (g/mi)	NMOG (g/mi)	CO (g/mi)	PM (g/mi)	HCHO (g/mi)	NOx (g/mi)	NMOG (g/mi)	CO (g/mi)	PM (g/mi)	HCHO (g/mi)
Federal	Bin 1	-	-	-	-	-	0	0	0	0	0
	Bin 2	-	-	-	-	-	0.02	0.01	2.1	0.01	0.004
	Bin 3	-	-	-	-	-	0.03	0.055	2.1	0.01	0.011
	Bin 4	-	-	-	-	-	0.04	0.07	2.1	0.01	0.011
	Bin 5	0.05	0.075	3.4	-	0.015	0.07	0.09	4.2	0.01	0.018
	Bin 6	0.08	0.075	3.4	-	0.015	0.1	0.09	4.2	0.01	0.018
	Bin 7	0.11	0.075	3.4	-	0.015	0.15	0.09	4.2	0.02	0.018
	Bin 8	0.14	0.100 / 0.125 ^c	3.4	-	0.015	0.2	0.125 / 0.156	4.2	0.02	0.018
	Bin 9 ^b	0.2	0.075 / 0.140	3.4	-	0.015	0.3	0.090 / 0.180	4.2	0.06	0.018
	Bin 10 ^b	0.4	0.125 / 0.160	3.4 / 4.4	-	0.015 / 0.018	0.6	0.156 / 0.230	4.2 / 6.4	0.08	0.018 / 0.027
	Bin 11 ^b	0.6	0.195	5	-	0.022	0.9	0.28	7.3	0.12	0.032

Notes:

Tests Covered: Federal Test Procedure (FTP), cold carbon monoxide (CO), highway, and idle

Model Year: 2004

a In lieu of intermediate useful life standards (50,000 miles) or to gain additional nitrogen oxides credit, manufacturers may optionally certify to the Tier 2 exhaust emission standards with a useful life of 150,000 miles.

b Bins 9-11 expire in 2006 for light-duty vehicles and light light-duty trucks and 2008 for heavy light-duty trucks and medium-duty passenger vehicles.

c Pollutants with two numbers have a separate certification standard (1st number) and in-use standard (2nd number).

Implementation Schedule

	Vehicle Category	NOx avg. / cap (g/mi) ^a	Model Year						
			2004	2005	2006	2007	2008	2009	2010
Federal	LDV, LLDT	0.3 / -	75%	50%	25%	0%	-	-	-
		0.07 / -	25%	50%	75%	0%	-	-	-
		0.07 / 0.2	-	-	-	100%	100%	100%	100%
	HLDT, MDPV	- / 0.6	75%	50%	25%	0%	-	-	-
		0.02 / -	25%	50%	75%	100%	50%	0%	-
		0.07 / -	-	-	-	-	50%	0%	-
		0.07 / 0.2	-	-	-	-	-	100%	100%

Notes:

a At full useful life (120,000 miles).

Code of Federal Regulations (CFR) citations:

- 40 CFR 86 Subpart S