California Emission Standards for New Heavy-Duty Trucks and Buses

Emissions Standards (g/bhp-hr)				
Model Year	**Heavy-Duty Vehicles**		**Urban Bus**	
	NOx	**PM**	**NOx**	**PM**
1988	6.0	0.6	6.0	0.6
1990	6.0	--	6.0	--
1991	5.0	0.25	5.0	0.1
1993	--	0.25	--	0.1
1994	--	0.10	--	0.07
1996	5.0	--	4.0	0.05 (c)
1998	4.0	--	4.0	--
October 2002	2.2 (a)	--	2.2 (a)	0.01 (f)
2004	2.2 (a)	--	0.5 (d), 2.2 (e)	--
2007	1.2 (b)	0.01	~~0.2~~	~~0.01~~
2010	0.2 (b)	--	~~0.2~~	--

a. Nominal NOx value of 2.2 g/bhp-hr is based on emission standards of 2.4 g/bhp-hr for NOx plus non-methane hydrocarbons (NMHC) or 2.5 g/bhp-hr NOx plus NMHC with 0.5 g/bhp-hr NMHC cap, which took effect in October 2002 for those engines subject to the U.S. EPA Consent Decrees and the California Settlement Agreements. The Consent Decree-complying engines had to comply with 2004 standards by October 1, 2002.

b. Between 2007 and 2009, U.S. EPA requires 50 percent of heavy-duty diesel engine family certifications to meet the 0.2 g/bhp-hr NOx standard. Averaging is allowed, and it is expected that most engines will conform to the fleet NOx average of approximately 1.2 g/bhp-hr.

c. In use standard of 0.07 g/bhp-hr.

d. Standard applies to urban bus equipped with diesel-fuel, dual fuel, or bi-fuel engines.

e. Standard applies to urban bus equipped with alternative-fueled engines. Nominal expected NOx level of 2.2 g/bhp-hr is based on ARB emission standards of 2.4 g/bhp-hr NOx plus NMHC or 2.5 g/bhp-hr NOx plus NMHC with 0.5 g/bhp-hr NMHC.

f. Standard applies to urban bus equipped with diesel-fuel, dual fuel, or bi-fuel engines. Urban bus equipped with alternative fueled engines may certify to optional standard of 0.03, 0.02, or 0.01 g/bhp-hr.

From: Proposed Amendments To The Exhaust Emission Standards For 2007-2009 Model-Year Heavy Duty Urban Bus Engines And The Fleet Rule For Transit Agencies, July 29, 2005, Page 9. Modified to Air Resources Board adopted action on October 27, 2005. Document located at http://www.arb.ca.gov/regact/sctransit/sctransit.htm