

Standards based on quantity of emissions

On September 15, 1965, the Department reported to the Motor Vehicle Pollution Control Board on the feasibility of exhaust standards effective in 1970 based on quantity of emissions. One approach was to apply a given degree of reduction to the average quantity of emissions from each class of vehicle. Under this scheme the 1970 concentration standards for Class A vehicles would be approximately the same as those recently adopted by the Federal Government. In order to meet the objective of rolling back the hydrocarbon emissions to the 1940 level, the standard for vehicles in classes B through F would be approximately 160 ppm.

This analysis does not include oxides of nitrogen emissions from exhaust because the Federal Government has not established standards for these compounds. The concentrations of oxides of nitrogen in the exhaust from different classes of vehicles do not differ greatly. If a standard is established based on quantity emissions, the allowable concentration will be inversely proportional to exhaust flow rate. Class A vehicles, with lower exhaust volumes, would be permitted higher oxides of nitrogen concentration in their exhausts, while vehicles with large engines and high exhaust flow rates would be allowed proportionately lower concentrations of exhaust nitrogen oxides.

TABLE III.—Motor vehicle emissions in Los Angeles under different standards

Yearend	Hydrocarbons, tons/day			Carbon monoxide, tons/day		
	California ¹ standard	Federal ² standard	Difference	California ¹ standard	Federal ² standard	Difference
1970, without evaporation control	1,690	1,730	40	9,320	9,620	300
1975, without evaporation control	1,360	1,510	150	7,110	8,530	1,420
1975, with evaporation control	1,160	1,510	350			
1980, without evaporation control	1,150	1,440	290	5,520	8,250	2,730
1980, with evaporation control	740	1,440	700			

¹ Assuming emissions will comply with standards now adopted in California.

² Assuming no change in the present Federal standards.