

## Environmental Protection Agency

## § 88.103–94

AUTHORITY: 42 U.S.C. 7410, 7418, 7581, 7582, 7583, 7584, 7586, 7588, 7589, 7601(a).

SOURCE: 57 FR 60046, Dec. 17, 1992, unless otherwise noted.

### Subpart A—Emission Standards for Clean-Fuel Vehicles

#### § 88.101–94 General applicability.

The clean-fuel vehicle standards and provisions of this subpart are applicable to vehicles used in subpart B of this part (the Clean Fuel Fleet Program) and subpart C of this part (the California Pilot Test Program).

[59 FR 50074, Sept. 30, 1994]

#### § 88.102–94 Definitions.

Any terms defined in 40 CFR part 86 and not defined in this part shall have the meaning given them in 40 CFR part 86, subpart A.

*Adjusted Loaded Vehicle Weight* is defined as the numerical average of the vehicle curb weight and the GVWR.

*Dual Fuel Vehicle (or Engine)* means any motor vehicle (or motor vehicle engine) engineered and designed to be operated on two different fuels, but not on a mixture of the fuels.

*Flexible Fuel Vehicle (or Engine)* means any motor vehicle (or motor vehicle engine) engineered and designed to be operated on any mixture of two or more different fuels.

*Heavy Light-Duty Truck* means any light-duty truck rated greater than 6000 lbs. GVWR.

*Light Light-Duty Truck* means any light-duty truck rated through 6000 lbs. GVWR.

*Loaded Vehicle Weight* is defined as the curb weight plus 300 lbs.

*Low-Emission Vehicle* means any light-duty vehicle or light-duty truck conforming to the applicable Low-Emission Vehicle standard, or any heavy-duty vehicle with an engine conforming to the applicable Low-Emission Vehicle standard.

*Non-methane Hydrocarbon Equivalent* means the sum of the carbon mass emissions of non-oxygenated non-methane hydrocarbons plus the carbon mass emissions of alcohols, aldehydes, or other organic compounds which are separately measured in accordance with the applicable test procedures of

40 CFR part 86, expressed as gasoline-fueled vehicle non-methane hydrocarbons. In the case of exhaust emissions, the hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1. In the case of diurnal and hot soak emissions, the hydrogen-to-carbon ratios of the equivalent hydrocarbons are 2.33:1 and 2.2:1 respectively.

*Non-methane Organic Gas* is defined as in section 241(3) Clean Air Act as amended (42 U.S.C. 7581(3)).

*Test Weight* is defined as the average of the curb weight and the GVWR.

*Transitional Low-Emission Vehicle* means any light-duty vehicle or light-duty truck conforming to the applicable Transitional Low-Emission Vehicle standard.

*Ultra Low-Emission Vehicle* means any light-duty vehicle or light-duty truck conforming to the applicable Ultra Low-Emission Vehicle standard, or any heavy-duty vehicle with an engine conforming to the applicable Ultra Low-Emission Vehicle standard.

*Zero-Emission Vehicle* means any light-duty vehicle or light-duty truck conforming to the applicable Zero-Emission Vehicle standard, or any heavy-duty vehicle conforming to the applicable Zero-Emission Vehicle standard.

[57 FR 60046, Dec. 17, 1992. Redesignated and amended at 59 FR 50074, Sept. 30, 1994]

#### § 88.103–94 Abbreviations.

The abbreviations of part 86 also apply to this subpart. The abbreviations in this section apply to all of part 88.

ALVW—Adjusted Loaded Vehicle Weight  
CO—Carbon Monoxide  
HCHO—Formaldehyde  
HC—Hydrocarbon  
HDV—Heavy-Duty Vehicle  
LDT—Light-Duty Truck  
LDV—Light-Duty Vehicle  
NMHC—Non-Methane Hydrocarbon  
NMHCE—Non-Methane Hydrocarbon Equivalent  
NMOG—Non-Methane Organic Gas  
NOx—Nitrogen Oxides  
PM—Particulate Matter  
GVWR—Gross Vehicle Weight Rating  
LVW—Loaded Vehicle Weight  
TW—Test Weight  
TLEV—Transitional Low-Emission Vehicle  
LEV—Low-Emission Vehicle  
ULEV—Ultra Low-Emission Vehicle

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ZEV—Zero-Emission Vehicle

[57 FR 60046, Dec. 17, 1992. Redesignated and amended at 59 FR 50074, Sept. 30, 1994]

**§ 88.104-94 Clean-fuel vehicle tailpipe emission standards for light-duty vehicles and light-duty trucks.**

(a) A light-duty vehicle or light-duty truck will be considered as a TLEV, LEV, ULEV, or ZEV if it meets the applicable requirements of this section.

(b) Light-duty vehicles certified to the exhaust emission standards for TLEVs, LEVs, and ULEVs in Tables A104-1 and A104-2 shall be considered as meeting the requirements of this section for that particular vehicle emission category for model years 1994-2000 for the California Pilot Program.

(c) Light-duty vehicles certified to the exhaust emission standards for LEVs and ULEVs in Tables A104-1 and A104-2 shall be considered as meeting the requirements of this section for that particular vehicle emission category for model years 2001 and later for the California Pilot Program, and for model years 1998 and later for the Clean Fuel Fleet Program.

(d) Light light-duty trucks certified to the exhaust emission standards for a specific weight category for TLEVs, LEVs, and ULEVs in Tables A104-3 and A104-4 shall be considered as meeting the requirements of this section for that particular vehicle emission category. For model years 1994-2000 for the California Pilot Program.

(e) Light Light-duty trucks certified to the exhaust emission standards for a specific weight category for LEVs and ULEVs in Tables A104-3 and A104-4 shall be considered as meeting the requirements of this section for that particular vehicle emission category. For model years 2001 and later for the California Pilot Program, and for model years 1998 and later for the Clean Fuel Fleet Program.

(f) Heavy light-duty trucks certified to the exhaust emission standards for a specific weight category of LEVs and ULEVs in Tables A104-5 and A104-6 for model years 1998 and later shall be considered as meeting the requirements of this section for that particular vehicle emission category.

(g) A light-duty vehicle or light-duty truck shall be certified as a ZEV if it is

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determined by engineering analysis that the vehicle satisfies the following conditions:

(1) The vehicle fuel system(s) must not contain either carbon or nitrogen compounds (including air) which, when burned, form any of the pollutants listed in Table A104-1 as exhaust emissions.

(2) All primary and auxiliary equipment and engines must have no emissions of any of the pollutants listed in Table A104-1.

(3) The vehicle fuel system(s) and any auxiliary engine(s) must have no evaporative emissions in use.

(4) Any auxiliary heater must not operate at ambient temperatures above 40 degrees Fahrenheit.

(h) *NMOG standards for flexible- and dual-fueled vehicles when operating on clean alternative fuel*—(1) *Light-duty vehicles, and light light-duty trucks.* Flexible- and dual-fueled LDVs and light LDTs of 1996 model year and later shall meet all standards in Table A104-7 for vehicles of the applicable model year, loaded vehicle weight, and vehicle emission category.

(2) *Light-duty trucks above 6,000 lbs GVWR.* Flexible- and dual-fueled LDTs above 6,000 lbs. GVWR of 1998 model year and later shall meet all standards in Table A104-8 for vehicles of the applicable test weight and vehicle emission category.

(i) *NMOG standards for flexible- and dual-fueled vehicles when operating on conventional fuel*—(1) *Light-duty vehicles, and light light-duty trucks.* Flexible- and dual-fueled LDVs and light LDTs of 1996 model year and later shall meet all standards in Table A104-9 for vehicles of the applicable model year, loaded vehicle weight, and vehicle emission category.

(2) *Light-duty trucks above 6,000 lbs GVWR.* Flexible- and dual-fueled LDTs of 1998 model year and later shall meet all standards in Table A104-10 for vehicles of the applicable test weight and vehicle emission category.

(j) *Other standards for flexible- and dual-fueled vehicles.* When operating on clean alternative fuel, flexible- and dual-fueled light-duty vehicles and light light-duty trucks must also meet the appropriate standards for carbon