§ 87.81 Fuel specifications.

Fuel having specifications as provided in §87.61 shall be used in smoke emission testing.

§ 87.82 Sampling and analytical procedures for measuring smoke exhaust emissions.

The system and procedures for sampling and measurement of smoke emissions shall be as specified by Appendix 2 to International Civil Aviation Organization (ICAO) Annex 16, Volume II, Aircraft Engine Emissions, Second Edition, July 1993, which are incorporated herein by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval and a notice of any change in these materials will be published in the Federal Register. Frequent changes are not anticipated. Copies may be inspected at U.S. EPA, OAR, 401 M St., SW., Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Copies of this document can be obtained from the International Civil Aviation Organization (ICAO), Document Sales Unit, P.O. Box 400, Succursale: Place de L’Aviation Internationale, 1000 Sherbrooke Street West, Suite 400, Montreal, Quebec, Canada H3A 2R2.


PART 88—CLEAN-FUEL VEHICLES

Subpart A—Emission Standards for Clean-Fuel Vehicles

Sec.
88.101–94 General applicability.
88.102–94 Definitions.
88.103–94 Abbreviations.
88.105–94 Clean-fuel fleet emission standards for heavy-duty engines.


§§ 87.83–87.88 [Reserved]

§ 87.89 Compliance with smoke emission standards.

Compliance with each smoke emission standard shall be determined by comparing the plot of SN as a function of power setting with the applicable emission standard under this part. The SN at every power setting must be such that there is a high degree of confidence that the standard will not be exceeded by any engine of the model being tested. An acceptable alternative to testing every engine is described in Appendix 6 to International Civil Aviation Organization (ICAO) Annex 16, Environmental Protection, Volume II, Aircraft Engine Emissions, Second Edition, July 1993, which is incorporated herein by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval and a notice of any change in these materials will be published in the Federal Register. Frequent changes are not anticipated. Copies may be inspected at U.S. EPA, OAR, 401 M St., SW., Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Copies of this document can be obtained from the International Civil Aviation Organization (ICAO), Document Sales Unit, P.O. Box 400, Succursale: Place de L’Aviation Internationale, 1000 Sherbrooke Street West, Suite 400, Montreal, Quebec, Canada H3A 2R2.

Environmental Protection Agency

§ 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.


§ 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
NMHC—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
ZEV—Zero-Emission Vehicle


(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 1994–2000 for the California Pilot Program.

(d) 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-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 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 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 GVWR and vehicle emission category.
(i) \textit{NM}OG 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 monoxide, oxides of nitrogen, formaldehyde, and particulate matter as designated in paragraphs (a) through (f) of this section as well as all other applicable standards and requirements. When operating on conventional fuel, flexible- and dual-fueled vehicles must also meet all other applicable standards and requirements in 40 CFR part 86.

(k) Motor vehicles subject to standards and requirements of this section shall also comply with all applicable standards and requirements of 40 CFR part 86.

Table A104–1—Intermediate Useful Life Standards (g/mi) for Light-Duty Vehicles for 
HCs, CO, NO\textsubscript{X}, HCHO, and PM

<table>
<thead>
<tr>
<th>Vehicle emission category</th>
<th>NM\textsubscript{O}G</th>
<th>CO</th>
<th>NO\textsubscript{X}</th>
<th>HCHO</th>
<th>PM$^1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLEV</td>
<td>0.125</td>
<td>3.4</td>
<td>0.4</td>
<td>0.015</td>
<td>------</td>
</tr>
<tr>
<td>LEV</td>
<td>0.075</td>
<td>2.3</td>
<td>0.2</td>
<td>0.015</td>
<td>------</td>
</tr>
<tr>
<td>ULEV</td>
<td>0.040</td>
<td>1.7</td>
<td>0.1</td>
<td>0.008</td>
<td>------</td>
</tr>
</tbody>
</table>

$^1$ Applies to diesel vehicles only.

$^2$ Applies to ILEVs.

Table A104–2—Full Useful Life Standards (g/mi) for Light-Duty Vehicles for 
HCs, CO, NO\textsubscript{X}, HCHO, and PM

<table>
<thead>
<tr>
<th>Vehicle emission category</th>
<th>NM\textsubscript{O}G</th>
<th>CO</th>
<th>NO\textsubscript{X}</th>
<th>HCHO</th>
<th>PM$^1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLEV</td>
<td>0.156</td>
<td>4.2</td>
<td>0.6</td>
<td>0.018</td>
<td>0.08</td>
</tr>
<tr>
<td>LEV</td>
<td>0.090</td>
<td>4.2</td>
<td>0.3</td>
<td>0.018</td>
<td>0.08</td>
</tr>
<tr>
<td>ULEV</td>
<td>0.055</td>
<td>2.1</td>
<td>0.3</td>
<td>0.011</td>
<td>0.04</td>
</tr>
</tbody>
</table>

$^1$ Applies to diesel vehicles only.

TABLES TO §88.104–94
### Table A104–3—Intermediate Useful Life Standards (g/mi) for Light Light-Duty Trucks for HCs, CO, NO₅, HCHO, and PM

<table>
<thead>
<tr>
<th>LVW (lbs)</th>
<th>Vehicle emission category</th>
<th>NMOG</th>
<th>CO</th>
<th>NO₅</th>
<th>HCHO</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–3750</td>
<td>TLEV</td>
<td>.125</td>
<td>3.4</td>
<td>.4</td>
<td>.015</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEV</td>
<td>.075</td>
<td>3.4</td>
<td>.2</td>
<td>.015</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.040</td>
<td>1.7</td>
<td>.2</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td>3751–5750</td>
<td>TLEV</td>
<td>.160</td>
<td>4.4</td>
<td>.7</td>
<td>.018</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEV</td>
<td>.100</td>
<td>4.4</td>
<td>.4</td>
<td>.018</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.050</td>
<td>2.2</td>
<td>.4</td>
<td>.009</td>
<td></td>
</tr>
</tbody>
</table>

1 Applies to diesel vehicles only.
2 Applies to ILEVs.

### Table A104–4—Full Useful Life Standards (g/mi) for Light Light-Duty Trucks for HCs, CO, NO₅, HCHO, and PM

<table>
<thead>
<tr>
<th>LVW (lbs)</th>
<th>Vehicle emission category</th>
<th>NMOG</th>
<th>CO</th>
<th>NO₅</th>
<th>HCHO</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–3750</td>
<td>TLEV</td>
<td>.156</td>
<td>4.2</td>
<td>.6</td>
<td>.018</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>LEV</td>
<td>.090</td>
<td>4.2</td>
<td>.3</td>
<td>.016</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.055</td>
<td>2.1</td>
<td>.3</td>
<td>.011</td>
<td>.04</td>
</tr>
<tr>
<td>3751–5750</td>
<td>TLEV</td>
<td>.200</td>
<td>5.5</td>
<td>.9</td>
<td>.023</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>LEV</td>
<td>.130</td>
<td>5.5</td>
<td>.5</td>
<td>.023</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.070</td>
<td>2.8</td>
<td>.5</td>
<td>.013</td>
<td>.04</td>
</tr>
</tbody>
</table>

1 Applies to diesel vehicles only.
2 Applies to ILEVs.

### Table A104–5—Intermediate Useful Life Standards (g/mi) for Heavy Light-Duty Trucks for HCs, CO, NO₅, HCHO, and PM

<table>
<thead>
<tr>
<th>ALVW (lbs)</th>
<th>Vehicle emission category</th>
<th>NMOG</th>
<th>CO</th>
<th>NO₅</th>
<th>HCHO</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–3750</td>
<td>LEV</td>
<td>.125</td>
<td>3.4</td>
<td>.4</td>
<td>.015</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.075</td>
<td>1.7</td>
<td>.2</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td>3751–5750</td>
<td>LEV</td>
<td>.160</td>
<td>4.4</td>
<td>.7</td>
<td>.018</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.100</td>
<td>2.2</td>
<td>.4</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td>5751–</td>
<td>LEV</td>
<td>.195</td>
<td>5.0</td>
<td>1.1</td>
<td>.022</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.117</td>
<td>2.5</td>
<td>.6</td>
<td>.011</td>
<td></td>
</tr>
</tbody>
</table>

1 Applies to diesel vehicles only.
2 Applies to ILEVs.

### Table A104–6—Full Useful Life Standards (g/mi) for Heavy Light-Duty Trucks for HCs, CO, NO₅, HCHO, and PM

<table>
<thead>
<tr>
<th>ALVW (lbs)</th>
<th>Vehicle emission category</th>
<th>NMOG</th>
<th>CO</th>
<th>NO₅</th>
<th>HCHO</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–3750</td>
<td>LEV</td>
<td>.180</td>
<td>5.0</td>
<td>.6</td>
<td>.022</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.107</td>
<td>2.5</td>
<td>.3</td>
<td>.012</td>
<td>.04</td>
</tr>
<tr>
<td>3751–</td>
<td>LEV</td>
<td>.230</td>
<td>6.4</td>
<td>1.0</td>
<td>.027</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.143</td>
<td>3.2</td>
<td>.5</td>
<td>.013</td>
<td>.05</td>
</tr>
<tr>
<td>5751–</td>
<td>LEV</td>
<td>.280</td>
<td>7.3</td>
<td>1.5</td>
<td>.032</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td>ULEV</td>
<td>.167</td>
<td>3.7</td>
<td>.8</td>
<td>.016</td>
<td>.06</td>
</tr>
</tbody>
</table>

1 Applies to diesel vehicles only.
2 Applies to ILEVs.

### Table A104–7—NMOG Standards (g/mi) for Flexible- and Dual-Fueled Vehicles When Operating on Clean Alternative Fuel for Light Light-Duty Trucks and Light-Duty Vehicles

<table>
<thead>
<tr>
<th>Vehicle type</th>
<th>50,000 mile NMOG standard</th>
<th>100,000 mile NMOG standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>MY 1996 and later:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDTs (0–3,750 lbs. LVW) and LDVs</td>
<td>0.125</td>
<td>0.156</td>
</tr>
<tr>
<td>LDTs (3,751–5,750 lbs. LVW)</td>
<td>0.160</td>
<td>0.200</td>
</tr>
<tr>
<td>Beginning MY 2001:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDTs (0–3,750 lbs. LVW) and LDVs</td>
<td>0.075</td>
<td>0.090</td>
</tr>
</tbody>
</table>
### Table A104-7—NMOG Standards (g/mi) for Flexible- and Dual-Fueled Vehicles When Operating on Clean Alternative Fuel for Light Light-Duty Trucks and Light-Duty Vehicles—Continued

<table>
<thead>
<tr>
<th>Vehicle type</th>
<th>50,000 mile NMOG standard</th>
<th>100,000 mile NMOG standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDTs (3,751–5,750 lbs. LVW)</td>
<td>.100</td>
<td>.130</td>
</tr>
</tbody>
</table>

### Table A104-8—NMOG Standards (g/mi) for Flexible- and Dual-Fueled Vehicles When Operating on Clean Alternative Fuel for Heavy Light-Duty Trucks

<table>
<thead>
<tr>
<th>Vehicle type</th>
<th>50,000 mile NMOG standard</th>
<th>120,000 mile NMOG standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning MY 1998:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDTs (0–3,750 lbs. ALVW)</td>
<td>0.125</td>
<td>0.180</td>
</tr>
<tr>
<td>LDTs (3,751–5,750 lbs. ALVW)</td>
<td>.160</td>
<td>.230</td>
</tr>
<tr>
<td>LDTs (5,751–8,500 lbs. ALVW)</td>
<td>.195</td>
<td>.260</td>
</tr>
</tbody>
</table>

### Table A104-9—NMOG Standards (g/mi) for Flexible- and Dual-Fueled Vehicles When Operating on Conventional Fuel for Light Light-Duty Trucks and Light-Duty Vehicles

<table>
<thead>
<tr>
<th>Vehicle type</th>
<th>50,000 mile NMOG standard</th>
<th>100,000 mile NMOG standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning MY 1996:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDTs (0–3,750 lbs. LVW) and LDVs</td>
<td>0.25</td>
<td>0.31</td>
</tr>
<tr>
<td>LDTs (3,751–5,750 lbs. LVW)</td>
<td>.32</td>
<td>.40</td>
</tr>
<tr>
<td>Beginning MY 2001:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDTs (0–3,750 lbs. LVW) and LDVs</td>
<td>.125</td>
<td>.156</td>
</tr>
<tr>
<td>LDTs (3,751–5,750 lbs. LVW)</td>
<td>.160</td>
<td>.200</td>
</tr>
</tbody>
</table>

### Table A104-10—NMOG Standards (g/mi) for Flexible- and Dual-Fueled Vehicles When Operating on Conventional Fuel for Light Light-Duty Trucks

<table>
<thead>
<tr>
<th>Vehicle type</th>
<th>50,000 mile NMOG standard</th>
<th>120,000 mile NMOG standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning MY 1998:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDTs (0–3,750 lbs. ALVW)</td>
<td>0.25</td>
<td>0.36</td>
</tr>
<tr>
<td>LDTs (3,751–5,750 lbs. ALVW)</td>
<td>.32</td>
<td>.46</td>
</tr>
<tr>
<td>LDTs (5,751–8,500 lbs. ALVW)</td>
<td>.39</td>
<td>.56</td>
</tr>
</tbody>
</table>


### § 88.105-94 Clean-fuel fleet emission standards for heavy-duty engines.

(a) Exhaust emissions from engines used in heavy-duty low emission vehicles shall meet one of the following standards:

1. Combined emissions of oxides of nitrogen and nonmethane hydrocarbons (or nonmethane hydrocarbon equivalent) shall not exceed 3.8 grams per brake horsepower-hour.

2. Combined emissions of oxides of nitrogen and nonmethane hydrocarbons (or nonmethane hydrocarbon equivalent) shall not exceed 3.5 grams per brake horsepower-hour when tested (certified) on fuel meeting the specificiations of California certification fuel.

(b) Exhaust emissions from engines used in heavy-duty low emission vehicles shall meet conventional vehicle standards set forth in Part 86 for total hydrocarbon, carbon monoxide, particulate, and organic material hydrocarbon equivalent.

(c) Exhaust emissions from engines used in ultra-low emission heavy-duty vehicles shall meet each of the following standards:
§ 88.201–94

(1) The combined emissions of oxides of nitrogen and nonmethane hydrocarbons (or nonmethane hydrocarbon equivalent) shall not exceed 2.5 grams per brake horsepow-er-hour.

(2) Carbon monoxide emissions shall not exceed 7.2 grams per brake horsepower-hour.

(3) Particulate emissions shall not exceed 0.05 grams per brake horsepow-er-hour.

(4) Formaldehyde emissions shall not exceed 0.025 grams per brake horsepower-hour.

(d) Exhaust emissions from engines used in inherently-low emission heavy-duty vehicles shall meet each of the following standards:

(1) The combined emissions of oxides of nitrogen and nonmethane hydrocarbons (or nonmethane hydrocarbon equivalent) shall not exceed 2.5 grams per brake horsepower-hour.

(2) Carbon monoxide emissions shall not exceed 14.4 grams per brake horsepower-hour.

(3) Particulate emissions shall not exceed 0.10 grams per brake horsepower-hour.

(4) Formaldehyde emissions shall not exceed 0.05 grams per brake horsepower-hour.

(e) The standards set forth in paragraphs (a), (b), (c), and (d) of this section refer to the exhaust emitted while the vehicle is being tested in accordance with the applicable test procedures set forth in 40 CFR part 86, subpart N.

(f)(1) A heavy-duty zero-emission vehicle (ZEV) has a standard of zero emissions for nonmethane hydrocarbons, oxides of nitrogen, carbon monoxide, formaldehyde, and particulates.

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

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

(g) All heavy-duty engines used in low emission, ultra-low emission, or zero emission vehicles shall also comply with all applicable standards and requirements of 40 CFR part 86, except that any exhaust emission standards in 40 CFR part 86 pertaining to pollutants for which standards are established in this section shall not apply.

[59 FR 50077, Sept. 30, 1994]

Subpart B—California Pilot Test Program

§ 88.201–94 Scope.

Applicability. The requirements of this subpart shall apply to the following:

(a) State Implementation Plan revisions for the State of California and other states pursuant to compliance with section 249 of the Clean Air Act, as amended in 1990.

(b) Vehicle manufacturers with sales in the State of California.


(a) The definitions in subpart A also apply to this subpart.

(b) The definitions in this subpart shall apply beginning with the 1992 model year.

Averaging for clean-fuel vehicles means the sale of clean-fuel vehicles that meet more stringent standards than required, which allows the manufacturer to sell fewer clean-fuel vehicles than would otherwise be required.

Banking means the retention of credits, by the manufacturer generating the emissions credits, for use in future model-year certification as permitted by regulation.

Sales means vehicles that are produced, sold, and distributed (in accordance with normal business practices and applicable franchise agreements) in the State of California, including
owners of covered fleets under subpart C of part 86 of this chapter. The manufacturer can choose at their option from one of the following three methods for determining sales:

(i) Sales is defined as sales to the ultimate purchaser.

(ii) Sales is defined as vehicle sales by a manufacturer to a dealer, distributor, fleet operator, broker, or any other entity which comprises the first point of sale.

(iii) Sales is defined as equivalent to the production of vehicles for the state of California. This option can be revoked if it is determined that the production and actual sales numbers do not exhibit a functional equivalence per the language of §86.708-94(b)(1) of this chapter.

Trading means the exchange of credits between manufacturers.

§ 88.203–94 Abbreviations.

The abbreviations in subpart A of this part and in 40 CFR part 86 apply to this subpart.

§ 88.204–94 Sales requirements for the California Pilot Test Program.

(a) The total annual required minimum sales volume of new clean fuel vehicles in California for this program shall correspond to Table B204.

(b) (1) When manufacturers of vehicles subject to the regulations of this section file a report pursuant to 40 CFR 86.083–37(b), such report shall include the following information: the number of light-duty vehicles and light-duty trucks sold only in California, and the number of clean-fuel vehicles sold for the Pilot program beginning with model year 1996.

(2) For model years 1996 and 1997, manufacturers may exclude heavy light-duty trucks from the reporting required by this section.

(c) (1) Except as provided in paragraph (d) of this section, each vehicle manufacturer must sell clean-fuel vehicles in California in an amount equal to the required annual sales volume calculated in paragraph (c)(2) of this section.

(2) The required annual clean fuel vehicle sales volume for a given manufacturer is expressed in the following equation rounded to the nearest whole number:

\[ RMS = \frac{MS}{TS} \times TCPPS \]

Where:

- RMS = a manufacturer’s required sales in a given model year.
- MS = the average of a manufacturer’s total LDV and light LDT sales in California three and four model years earlier than year in question (for MY 1996 and 1997 RMS calculations).
- TS = the average of a manufacturer’s total LDV and LDT sales in California three and four model years earlier than year in question (for MY 1996 and later RMS calculations).
- TCPPS = Pilot program annual CFV sales requirement (either 150,000 or 300,000) for the model year in question.

(i) A manufacturer’s share of required annual sales for model years 1996 and 1997 will be based on LDV and light LDT sales only. Once the heavy LDT standards are effective beginning with model year 1998, a manufacturer’s required sales share will be based on all LDV and LDT sales.

(ii) A manufacturer certifying for the first time in California shall calculate annual required sales share based on projected California sales for the model year in question. In the second year, the manufacturer shall use actual sales from the previous year. In the third year, the manufacturer will use sales from two model years prior to the year in question. In the fourth year, the manufacturer will use sales from three years prior to the year in question. In the fifth year and subsequent years, the manufacturer will use average sales from three and four years prior to the year in question.

(d) (1) Small volume manufacturer is defined in the Pilot program as one
§ 88.205–94 California Pilot Test Program Credits Program.

(a) General. (1) The Administrator shall administer this credit program to enable vehicle manufacturers who are required to participate in the California Pilot Test Program to meet the clean-fuel vehicle sales requirements through the use of credits. Participation in this credit program is voluntary.

(2) All credit-generating vehicles must meet the applicable emission standards and other requirements contained in subpart A of this part.

(b) Credit generation. (1) Credits may be generated by any of the following means:

(i) Sale of qualifying clean-fuel vehicles earlier than required. Manufacturers may earn these credits starting with the 1992 model year, contingent upon the requirements of paragraph (g) of this section.

(ii) Sale of a greater number of qualifying clean-fuel vehicles than required.

(iii) Sale of qualifying clean-fuel vehicles that meet more stringent emission standards than those required.

(2) For light-duty vehicles and light-duty trucks, credit values shall be determined in accordance with the following:

(i) For model-years through 2000, credit values shall be determined in accordance with table B–1 of this subpart.

(ii) For the 2001 and subsequent model-years, credit values shall be determined according to table B–2 of this subpart. The sale of light-duty vehicles classified as Transitional Low-Emission Vehicles shall not receive credits starting in model year 2001.

(iii) For the calculation of credits for the sale of more clean-fuel vehicles than required, the manufacturer shall designate which sold vehicles count toward compliance with the sales requirement. The remaining balance of vehicles will be considered as sold beyond the sales requirement for credit calculations.

(3) Vehicles greater than 8500 lbs gvw may not generate credits.

(c) Credit use. (1) All credits generated in accordance with these provisions may be freely averaged, traded, or banked for later use. Credits may not be used to remedy any nonconformity determined by enforcement testing.

(2) There is one averaging and trading group containing all light-duty vehicles and light-duty trucks.

(3) A vehicle manufacturer desiring to demonstrate full or partial compliance with the sales requirements by
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the redemption of credits, shall surrender sufficient credits, as established in this paragraph (c). In lieu of selling a clean-fuel vehicle, a manufacturer shall surrender credits equal to the credit value for the corresponding vehicle class and model year found in table B–1.3 or table B–2.3 of this subpart.

(d) Participation in the credit program.
(1) During certification, the manufacturer shall calculate the projected credits, if any, based on required sales projections.
(2) Based on information from paragraph (d)(1) of this section, each manufacturer’s certification application under this section must demonstrate:
   (i) That at the end of the model-year production, there is a net vehicle credit balance of zero or more with any credits obtained from averaging, trading, or banking.
   (ii) It is recommended but not required that the source of the credits to be used to comply with the minimum sales requirements be stated. All such reports should include all credits involved in averaging, trading, or banking.
(3) During the model year, manufacturers must:
   (i) Monitor projected versus actual production to be certain that compliance with the sales requirement is achieved at the end of the model year.
   (ii) Provide the end of model year reports required under this subpart.
   (iii) Maintain the records required under this subpart.
   (4) Projected credits based on information supplied in the certification application may be used to obtain a certificate of conformity. However, any such credits may be revoked based on review of end-of-model year reports, follow-up audits, and any other verification steps deemed appropriate by the Administrator.
(5) Compliance under averaging, banking, and trading will be determined at the end of the model year.
(6) If EPA or the manufacturer determines that a reporting error occurred on an end-of-year report previously submitted to EPA under this section, the manufacturer’s credits and credit calculations will be recalculated.
(1) If EPA review of a manufacturer’s end-of-year report indicates an inadvertent credit shortfall, the manufacturer will be permitted to purchase the necessary credits to bring the credit balance to zero.
   (ii) If within 90 days of receipt of the manufacturer’s end-of-year report, EPA review determines a reporting error in the manufacturer’s favor (i.e., resulting in a positive credit balance) or if the manufacturer discovers such an error within 90 days of EPA receipt of the end-of-year report, the credits will be restored for use by the manufacturer.
(e) Averaging. Averaging will only be allowed between clean-fuel vehicles under 8500 lbs GVR.
   (1) Banking. (1) Credit deposits.
   (i) Under this program, credits can be banked starting in the 1992 model year.
   (ii) A manufacturer may bank credits only after the end of the model year and after EPA has reviewed its end-of-year report. During the model year and before submittal of the end-of-year report, credits originally designated in the certification process for banking will be considered reserved and may be redesignated for trading or averaging.
   (2) Credit withdraws.
   (i) After being generated, banked/reserved credits shall be available for use and shall maintain their original value for an infinite period of time.
   (ii) A manufacturer withdrawing banked credits shall indicate so during certification and in its credit reports.
(3) Banked credits may be used in averaging, trading, or in any combination thereof, during the certification period. Credits declared for banking from the previous model year but unreviewed by EPA may also be used. However, they may be revoked at a later time following EPA review of the end-of-year report or any subsequent audit actions.
(g) Early credits. Beginning in model year 1992 appropriate credits, as determined from the given credit table, will be given for the sale of vehicles certified to the clean-fuel vehicle standards for TLEVs, LEVs, ULEVs, and ZEVs, where appropriate. For LDVs and light LDTs (<6000 lbs GVR), early credits can be earned from model year 1992 to the beginning of the Pilot Program sales requirements in 1996. For heavy LDTs (>6000 lbs GVR), early
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A state may opt into the Pilot program under subpart D of Title I if it contains all or part of an ozone nonattainment area classified as serious, severe, or extreme. A state may opt into the program by submitting SIP revisions that meet the requirements of this section. For a state that chooses to opt in, SIP provisions can not take effect until one year after the state has provided notice of such provisions to motor vehicle manufacturers and fuel suppliers. A state that chooses to opt into the program can not require a sales or production mandate for CFVs or clean alternative fuels. States may not subject fuel or vehicle suppliers to penalties or sanctions for failing to produce or sell CFVs or clean alternative fuels.

(e) (1) A state's SIP may include incentives for the sale or use in such state of CFVs required in California by the Clean Fuel Fleet Program, and the use of clean alternative fuels required to be made available in California by the California Pilot Program.

(2) Incentives may include:

(i) A registration fee on non-CFVs of at least 1 percent of the total cost of the vehicle. These fees shall be used to:

(A) Provide financial incentives to purchasers of CFVs and vehicle dealers who sell high volumes or high percentages of CFVs.

(B) Defray administrative costs of the incentive program.

(ii) Exemptions for CFVs from high occupancy vehicle or trip reduction requirements.

(iii) Preferences for CFVs in the use of existing parking places.

[TABLES TO SUBPART B OF PART 88

TABLE B–1—CREDIT TABLE FOR PHASE I VEHICLE EQUIVALENTS FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS

<table>
<thead>
<tr>
<th>Vehicle emission category</th>
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<th>LDT ≤6000 gvw</th>
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TABLE B–1.2—CREDIT GENERATION: SELLING MORE STRINGENT CLEAN FUEL VEHICLES

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TABLE B–1.3—CREDIT NEEDED IN LIEU OF SELLING CLEAN-FUEL VEHICLE

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<th>LDT ≤6000 gvw</th>
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1 There is no TLEV category for this vehicle class.

### Table B–2—Credit Table for Phase II: Vehicle Equivalents for Light-Duty Vehicles and Light-Duty Trucks

#### Table B–2.1—Credit Generation: Selling More Clean-Fuel Vehicles Than Required

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#### Table B–2.2—Credit Generation: Selling More Stringent Clean-Fuel Vehicles

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<th>LDV &gt;6000 gvw ≤3750 alvw</th>
<th>LDV &gt;6000 gvw ≤5750 alvw</th>
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<tr>
<td>ULEV</td>
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<td>0.57</td>
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#### Table B–2.3—Credit Needed in Lieu of Selling Clean-Fuel Vehicles

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<th>LDV &gt;6000 gvw ≤3750 alvw</th>
<th>LDV &gt;6000 gvw ≤5750 alvw</th>
<th>LDV &gt;6000 gvw &gt;5750 alvw</th>
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<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.26</td>
<td>0.71</td>
<td>0.91</td>
<td>1.11</td>
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[59 FR 50079, Sept. 30, 1994]

### Subpart C—Clean-Fuel Fleet Program

Source: 58 FR 11901, Mar. 1, 1993, unless otherwise noted.

#### § 88.301–93 General applicability.

(a) The requirements of this subpart apply to the following:

1. State Implementation Plan revisions at 40 CFR part 52 made pursuant to sections 110 and 246 of the CAA (42 U.S.C. 7410 and 7586) hereafter referred to as the “SIP revision.”

2. All agencies, departments and instrumentalities of the United States that are subject to the fleet programs established by a state’s SIP revision.

(b) The requirements of §§ 88.302–93, 88.303–93, 88.311–93, 88.312–93, and 88.313–93 of this part apply to fleets which voluntarily purchase and operate Inherently Low-Emission Vehicles (ILEVs).

(c) References in this subpart to engine families and emission control systems shall be deemed to refer to durability groups and test groups as applicable for manufacturers certifying new light-duty vehicles and light-duty trucks under the provisions of 40 CFR part 86, subpart S.

[58 FR 11901, Mar. 1, 1993, as amended at 64 FR 23973, May 4, 1999]
§ 88.302–93 Definitions.

The definitions in 40 CFR part 86 of this chapter also apply to this subpart. The definitions in this section apply to this subpart.

Combination heavy-duty vehicle means a vehicle with a GVWR greater than 8,500 pounds (3,900 kilograms) which is comprised of a truck-tractor and one or more pieces of trailered equipment. The truck-tractor is a self-propelled motor vehicle built on one chassis which encompasses the engine, passenger compartment, and a means of coupling to a cargo carrying trailer(s). The truck-tractor itself is not designed to carry cargo.

Inherently Low-Emission Vehicle means any LDV or LDT conforming to the applicable Inherently Low-Emission Vehicle standard, or any HDV with an engine conforming to the applicable Inherently Low-Emission Vehicle standard. No dual-fuel or flexible-fuel vehicles shall be considered Inherently Low-Emission Vehicles unless they are certified to the applicable standard(s) on all fuel types for which they are designed to operate.

Partially-Covered Fleet pertains to a vehicle fleet in a covered area which contains both covered fleet vehicles and non-covered fleet vehicles, i.e., exempt from covered fleet purchase requirements.

Single-unit heavy-duty vehicle means a self-propelled motor vehicle with a GVWR greater than 8,500 pounds (3,900 kilograms) built on one chassis which encompasses the engine, passenger compartment, and cargo carrying function, and not coupled to trailered equipment. All buses, whether or not they are articulated, are considered single-unit vehicles.

§ 88.302–94 Definitions.

The definitions in §88.302–93 and 40 CFR part 86 also apply to this part. All terms used in this part, but not defined in this section or in §88.302–93 and 40 CFR part 86 shall have the meaning assigned to them in the Clean Air Act.

Can be centrally fueled means the sum of those vehicles that are centrally fueled and those vehicles that are capable of being centrally fueled.

(1) Capable of being centrally fueled means a fleet, or that part of a fleet, consisting of vehicles that could be refueled 100 percent of the time at a location that is owned, operated, or controlled by the covered fleet operator, or is under contract with the covered fleet operator. The fact that one or more vehicles in a fleet is/are not capable of being centrally fueled does not exempt an entire fleet from the program.

(2) Centrally fueled means a fleet, or that part of a fleet, consisting of vehicles that are fueled 100 percent of the time at a location that is owned, operated, or controlled by the covered fleet operator, or is under contract with the covered fleet operator. Any vehicle that is under normal operations garaged at home at night but that is, in fact, centrally fueled 100 percent of the time shall be considered to be centrally fueled for the purpose of this definition. The fact that one or more vehicles in a fleet is/are not centrally fueled does not exempt an entire fleet from the program. The fact that a vehicle is not centrally fueled does not mean it could not be centrally fueled in accordance with the definition of “capable of being centrally fueled.”

(3) Location means any building, structure, facility, or installation which is owned or operated by a person, or is under the control of a person; is located on one or more contiguous properties and contains or could contain a fueling pump or pumps for the use of the vehicles owned or controlled by that person.

Clean-fuel vehicle aftermarket conversion certifier means the business or entity that obtains a certificate of conformity with the clean-fuel vehicle standards and requirements for a vehicle/engine conversion configuration pursuant to the requirements of 40 CFR part 86 and this part 88.

Control means: (1) When it is used to join all entities under common management, means any one or a combination of the following:

(i) A third person or firm has equity ownership of 51 percent or more in each of two or more firms;

(ii) Two or more firms have common corporate officers, in whole or in substantial part, who are responsible for the day-to-day operation of the companies.
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(iii) One firm leases, operates, supervises, or in 51 percent or greater part owns equipment and/or facilities used by another person or firm, or has equity ownership of 51 percent or more of another firm.

(2) When it is used to refer to the management of vehicles, means a person has the authority to decide who can operate a particular vehicle, and the purposes for which the vehicle can be operated.

(3) When it is used to refer to the management of people, means a person has the authority to direct the activities of another person or employee in a precise situation, such as at the workplace.

*Conversion configuration* means any combination of vehicle/engine conversion hardware and a base vehicle of a specific engine family.

*Covered fleet operator* means a person who operates a fleet of at least ten covered fleet vehicles (as defined in section 241(6) of the Act) and that fleet is operated in a single covered area (even if the covered fleet vehicles are garaged outside of it). For purposes of this definition, the vehicle types described in the definition of *covered fleet* (section 241(5) of the Act) as exempt from the program will not be counted toward the ten-vehicle criterion.

*Dealer demonstration vehicle* means any vehicle that is operated by a motor vehicle dealer (as defined in section 216(4) of the Act) solely for the purpose of promoting motor vehicle sales, either on the sales lot or through other marketing or sales promotions, or for permitting potential purchasers to drive the vehicle for pre-purchase or pre-lease evaluation.

*Emergency vehicle* means any vehicle that is legally authorized by a governmental authority to exceed the speed limit to transport people and equipment to and from situations in which speed is required to save lives or property, such as a rescue vehicle, fire truck, or ambulance.

*Law enforcement vehicle* means any vehicle which is primarily operated by a civilian or military police officer or sheriff, or by personnel of the Federal Bureau of Investigation, the Drug Enforcement Administration, or other agencies of the federal government, or by state highway patrols, municipal law enforcement, or other similar law enforcement agencies, and which is used for the purpose of law enforcement activities including, but not limited to, chase, apprehension, surveillance, or patrol of people engaged in or potentially engaged in unlawful activities. For federal law enforcement vehicles, the definition contained in Executive Order 12759, Section 11: Alternative Fueled Vehicle for the Federal Fleet, Guidance Document for Federal Agencies, shall apply.

*Model year*, as it applies to the clean fuel vehicle fleet purchase requirements, means September 1 through August 31.

*Motor vehicles held for lease or rental to the general public* means a vehicle that is owned or controlled primarily for the purpose of short-term rental or extended-term leasing (with or without maintenance), without a driver, pursuant to a contract.

*New covered fleet vehicle* means a vehicle that has not been previously controlled by the current purchaser, regardless of the model year, except as follows: Vehicles that were manufactured before the start of the fleet program for such vehicle’s weight class, vehicles transferred due to the purchase of a company not previously controlled by the purchaser or due to a consolidation of business operations, vehicles transferred due to the purchase of a company not previously controlled by the purchaser or due to a consolidation of business operations, vehicles transferred as part of an employee transfer, or vehicles transferred for seasonal requirements (i.e., for less than 120 days) are not considered new. States are permitted to discontinue the use of the fourth exception for fleet operators who abuse the discretion afforded them. This definition of new covered fleet vehicle is distinct from the definition of new vehicle as it applies to manufacturer certification, including the certification of vehicles to the clean fuel standards.

*Owned or operated, leased or otherwise controlled by such person* means either of the following:

(1) Such person holds the beneficial title to such vehicle; or

(2) Such person uses the vehicle for transportation purposes pursuant to a contract or similar arrangement, the term of such contract or similar arrangement is for a period of 120 days or
more, and such person has control over the vehicle pursuant to the definition of control of this section.

Person includes an individual, corporation, partnership, association, State, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof.

Under normal circumstances garaged at personal residence means a vehicle that, when it is not in use, is normally parked at the personal residence of the individual who usually operates it, rather than at a central refueling, maintenance, and/or business location. Such vehicles are not considered to be capable of being centrally fueled (as defined in this subpart) and are exempt from the program unless they are, in fact, centrally fueled.

Vehicle used for motor vehicle manufacturer product evaluations and tests means a vehicle that is owned and operated by a motor vehicle manufacturer (as defined in section 216(1) of the Act), or motor vehicle component manufacturer, or owned or held by a university research department, independent testing laboratory, or other such evaluation facility, solely for the purpose of evaluating the performance of such vehicle for engineering, research and development, or quality control reasons.


§ 88.303–93 Abbreviations.

The abbreviations in subpart A of this part and in 40 CFR part 86 apply to this subpart. The abbreviations in this section apply to this subpart.

ILEV—Inherently Low-Emission Vehicle.

§ 88.304–94 Clean-fuel Fleet Vehicle Credit Program.

(a) General. (1) The SIP revision shall provide for a CFFV credit program to enable covered fleet owners/operators to meet the fleet vehicle purchase requirements of the CAA both by purchasing clean-fuel vehicles (CFVs) directly and by trading and banking CFFV credits for vehicle purchases.

(2) All credit-generating vehicles must meet the applicable emission standards and other requirements contained in 40 CFR part 88, subpart A.

(b) Program administration. (1)(i) Each state in which there is all or part of a covered area, as defined in CAA section 246(a)(2), shall promulgate regulations as necessary for implementing this requirement.

(ii) The state shall submit a SIP revision before May 15, 1994 to the Administrator stipulating the specific mechanism by which the CFFV program is to be administered and enforced. The credit program shall commence upon EPA approval of the SIP in accordance with CAA section 246(f)(5).

(2) A fleet owner who purchases/leases a CFFV only to generate CFFV credit shall be subject to the same requirements of the state's CFFV program as a covered fleet owner who purchases/leases a CFFV to demonstrate compliance with covered fleet purchase requirements.

(3) While in the covered area, a dual-fuel/flexible-fuel vehicle which a fleet owner purchases to comply with covered fleet purchase requirements must be operated at all times on the fuel(s) on which it was certified as a CFFV. If the fleet owner receives credit for a dual-fuel/flexible-fuel vehicle purchase, the vehicle must be operated at the same emission level for which the vehicle generated CFFV credit.

(c) Credit generation. (1) States shall grant CFFV credits to a covered fleet owner for any of the following qualifying CFFV purchases:

(i) Purchase of a CFFV during any period subsequent to the approval of the SIP revision but prior to the effective date for commencement of a state's CFFV purchase requirement if the purchase meets all other CFFV requirements applicable to such purchases, including the statutory requirement to use only the fuel on which the vehicle was certified as a CFFV;

(ii) Purchase of a greater number of CFFVs than is required under the SIP revision;

(iii) Purchase of a CFFV which meets more stringent emission standards than required under the SIP revision;

or

(iv) Purchase of a CFFV in an exempt or non-covered vehicle category by the
owner/operator of a covered or partially-covered fleet.

(2) A state may retroactively grant CFFV credit(s) to a fleet owner for the purchase of a CFFV prior to the approval of the state's SIP revision if the purchase met all CFFV credit program requirements applicable to such purchases, including:

(i) The vehicle purchased would have to have been certified to CFFV emission standards;

(ii) The vehicle purchased would have to have been a dedicated-fuel vehicle;

(iii) If the vehicle purchased was not a dedicated-fuel vehicle, then the fleet owner would have to show that the vehicle had been operated only on the clean alternative fuel on which the vehicle had been certified as a CFFV.

(3) For LDVs and LDTs, credit values shall be determined in accordance with Table C94-1. The state shall use Table C94-1 exclusively in determining LDV and LDT CFFV credit values. Table C94-1.1 applies to paragraphs (c)(1)(i), (ii) and (iv) of this section; Table C94-1.2 applies to paragraph (c)(1)(iii) of this section.

(4) In lieu of determining credit values in accordance with Table C94-4, a state may specify in its SIP revision that Table C94-4 will be used to determine LDV and LDT CFFV credit values in one or more affected nonattainment areas. Any state choosing to do so must provide adequate justification, based on air quality benefits, at the time the SIP revision is submitted. If the use of Table C94-4 is approved by EPA, the state shall use Table C94-4 exclusively in determining LDV and LDT CFFV credit values for vehicles in the subject area or areas. Table C94-4.1 applies to paragraphs (b)(1)(i), (ii) and (iv) of this section, and Table C94-4.2 applies to paragraph (b)(1)(iii) of this section.

(5) In lieu of determining credit values in accordance with Table C94-4, a state containing a carbon monoxide nonattainment area(s) having a design value above 16 parts per million may specify in its SIP revision that Table C94-4 will be used to determine heavy-duty vehicle CFFV credit values in one or more affected nonattainment areas. Any state choosing to do so must provide adequate justification, based on air quality benefits, at the time the SIP revision is submitted. If the use of Table C94-4 is approved by EPA, the State shall use Table C94-4 exclusively in determining heavy-duty vehicle CFFV credit values for vehicles in the subject area or areas. Table C94-4.1 applies to paragraphs (b)(1)(i), (ii) and (iv) of this section; Table C94-4.2 applies to paragraph (b)(1)(iii) of this section.

(6) Credit values shall be rounded to two decimal places.

(7) In lieu of determining credit values in accordance with Table C94-4, a state containing a carbon monoxide nonattainment area(s) having a design value above 16 parts per million may specify in its SIP revision that Table C94-5 will be used to determine heavy-duty vehicle CFFV credit values in one or more affected nonattainment areas. Any state choosing to do so must provide adequate justification, based on air quality benefits, at the time the SIP revision is submitted. If the use of Table C94-5 is approved by EPA, the State shall use Table C94-5 exclusively in determining heavy-duty vehicle CFFV credit values for vehicles in the subject area or areas. Table C94-5.1 applies to paragraphs (b)(1)(i), (ii) and (iv) of this section; Table C94-5.2 applies to paragraph (b)(1)(iii) of this section.

(8) Credit values shall be rounded to two decimal places.

(9) Heavy heavy-duty vehicles. (i) States must allow (ii) purchase of any clean-fuel single-unit or combination HDV with a GVWR greater than 26,000 pounds (11,800 kilograms) to generate CFFV credit for the fleet vehicle purchaser.

(ii) States must exclude from generating CFFV credit the purchase of any combination HDV with a GVWR greater than 26,000 pounds (11,800 kilograms) which pays all or a portion of its fuel taxes, as evidenced by fuel tax stickers on the combination HDV, to a state(s) which is not part of that covered nonattainment area.
(10) **Light-duty CFFV credits.** Credits generated by the purchase of a qualifying clean-fuel fleet LDV or a LDT shall be designated at the time of issuance as light-duty CFFV credits.

(11) **Heavy-duty CFFV credits.** Credits generated by the purchase of a qualifying clean-fuel fleet HDV shall be designated at the time of issuance as heavy-duty CFFV credits. Further, credits generated by the purchase of a light heavy-duty or a medium heavy-duty qualifying CFFV shall be designated at the time of issuance as light heavy-duty and medium heavy-duty CFFV credits, respectively.

(d) **Credit use.**

(1) All credits generated in accordance with these provisions may be freely traded or banked for later use, subject to the provisions contained in this subpart, without discount or depreciation of such credits.

(2) A covered fleet owner or operator desiring to demonstrate full or partial compliance with covered fleet purchase requirements by the redemption of credits shall surrender sufficient credits as established in this paragraph. In lieu of purchasing a CFFV, a fleet owner or operator shall surrender credits equal to the credit value for the corresponding vehicle class and credit calculation method used in that area from either Table C94–1.3, C94–2.3, C94–3.3, C94–4.3, or C94–5.3 of this subpart.

(3) Credits earned within the boundaries of a covered nonattainment area may be traded within those boundaries whether or not that area encompasses parts of more than one state.

(4) Credits issued as a result of CFFV purchase requirements in one nonattainment area may not be used to demonstrate compliance in another nonattainment area, even if a state contains more than one covered nonattainment area.

(5) **Credit allocation.**

(i) Credits generated by the purchase of LDVs and LDTs of 8,500 pounds (3,900 kilograms) GVWR or less may be used to demonstrate compliance with the covered fleet purchase requirements for vehicles weighing 8,500 pounds (3,900 kilograms) GVWR or less.

(ii) Credits generated by the purchase of vehicles of more than 8,500 pounds (3,900 kilograms) GVWR or less may not be used to demonstrate compliance with requirements for vehicles of more than 8,500 pounds (3,900 kilograms) GVWR.

(iii) Credits generated by the purchase of a HDV of a particular weight subclass may be used to demonstrate compliance with required heavy-duty vehicle purchases for the same or lighter weight subclasses. These credits may not be used to demonstrate compliance with required HDV purchases for vehicles of heavier weight subclasses than the weight subclass of the vehicle which generated the credits.

§ 88.305–94 Clean-fuel fleet vehicle labeling requirements for heavy-duty vehicles.

(a) All clean-fuel heavy-duty engines and vehicles used as LEVs, ULEVs, and ZEVs that are also regulated under 40 CFR part 86 shall comply with the labeling requirements of 40 CFR 86.095–35 (or later applicable sections), and shall also include an unconditional statement on the label indicating that the engine or vehicle is a LEV, ULEV, or ZEV, and meets all of the applicable requirements of this part 88.

(b) All heavy-duty clean-fuel fleet vehicles not regulated under 40 CFR part 86 shall have a permanent legible label affixed to the engine or vehicle in a readily visible location, which contains the following information:

(1) The label heading: vehicle emissions classification information (e.g., “This is a Low Emission Vehicle”);

(2) Full corporate name and trademark of the manufacturer;

(3) A statement that this engine or vehicle meets all applicable requirements of the U.S. Environmental Protection Agency clean-fuel fleet vehicle program, as described in this part 88, but not necessarily those requirements found in 40 CFR part 86.

[59 FR 50080, Sept. 30, 1994]
§ 88.306–94 Requirements for a converted vehicle to qualify as a clean-fuel fleet vehicle.

(a) For purposes of meeting the requirements of section 246 of the Clean Air Act or the SIP revisions, conversions of engines or vehicles which satisfy the requirements of this section shall be treated as a purchase of a clean-fuel vehicle under subpart C of this part.

(b) The engine or vehicle must be converted using a conversion configuration which has been certified according to the provisions of 40 CFR part 86 using applicable emission standards and other provisions from part 88 for clean-fuel engines and vehicles. The following requirements will also apply:

1. If the installation of the certified conversion configuration is performed by an entity other than aftermarket conversion certifier, the aftermarket conversion certifier shall submit a list of such installers to the Administrator. Additional installers must be added to this list and the revised list submitted to the Administrator within 5 working days from the time they are authorized to perform conversion installations by the clean-fuel vehicle aftermarket conversion certifier.

2. If the installation of the certified conversion configuration is performed by an entity other than the certificate holder, the certificate holder shall provide instructions for installation of the aftermarket conversion system to installers listed on the certificate, and ensure that the systems are properly installed.

3. For the purpose of determining whether certification under the Small-Volume Manufacturers Certification Program pursuant to the requirements of 40 CFR 86.094–14 is permitted, the 10,000 sales volume limit in 40 CFR 86.094–14(b)(1) is waived for a certifier of a clean-fuel vehicle aftermarket conversion.

4. Clean-fuel vehicle aftermarket conversion certifiers that are subject to the post-installation emissions testing requirements in paragraph (c) of this section and who will satisfy these requirements by using the two speed idle test procedure detailed in paragraph (c)(2)(ii) of this section must conduct the following testing at the time of certification in order to generate the required certification CO emissions reference values. The certification CO emissions reference values generated must be submitted to the Administrator at the time of application for certification.

(i) For dual and flexible fuel vehicles, certification reference values must be generated for each certification test fuel required for exhaust emissions testing pursuant to 40 CFR 86.113 or 40 CFR 86.1313.

(ii) For light-duty vehicles and light-duty trucks the test fuels used during the emissions testing required by paragraph (b)(3) of this section must comply with the fuel specifications for exhaust emissions testing found in 40 CFR 86.113. For heavy-duty engines the test fuels used during the emissions testing required by paragraph (b)(3) of this section must comply with the fuel specifications for exhaust emissions testing found in 40 CFR 86.1313.

(iii) Single, consecutive idle mode and high-speed mode segments of the two speed idle test must be conducted pursuant to the requirements of 40 CFR 85.2215 and as modified by the provisions of paragraph (c)(4)(ii)(D) of this section and this paragraph to determine the required certification CO emission reference values.

(A) The certification CO emission reference value for the idle mode of the test will be the simple average of all emissions measurements taken during an idle mode of 90 seconds duration pursuant to the requirements in 40 CFR 85.2215(a).

(B) The certification CO emission reference value for the high-speed mode of the test will be the simple average of all emissions measurements taken during a high-speed mode of 180 seconds duration pursuant to the requirements in 40 CFR 85.2215(a).

(c) Except as provided in paragraph (c)(1) of this section, each converted vehicle manufactured by a clean-fuel vehicle aftermarket conversion certifier with aggregate sales of less than 10,000 converted vehicles within a given calendar year must satisfy the post-installation emissions testing requirements of paragraph (c)(2) of this section. If a vehicle fails to satisfy the emissions testing requirements such
vehicle may not be considered a clean-fuel vehicle until such noncompliance is rectified and compliance is demonstrated.

(1) A clean-fuel vehicle aftermarket conversion certifier with estimated sales of 300 or fewer engines and vehicles in a calendar year and which sells or converts vehicles outside of a nonattainment area (as classified under subpart D of Title I) which has an inspection and maintenance program that includes a test of carbon monoxide emissions may submit a request to the Administrator for an exemption from the post-installation emission test requirements of paragraph (c) of this section. If granted, such an exemption would apply to converted vehicles that have the conversion installation performed outside of a nonattainment area which has an inspection and maintenance program that includes a test of carbon monoxide emissions.

(i) The request for exemption submitted to the Administrator must include the following:

(A) The estimated number of engines and vehicles that will be converted in the calendar year.
(B) Sufficient information to demonstrate that complying with the post-installation emission test requirement represents a severe financial hardship.
(C) A description of any emission related quality control procedures used.

(ii) Within 120 days of receipt of the application for exemption, the Administrator will notify the applicant either that an exemption is granted or that sufficient cause for an exemption has not been demonstrated and that all of the clean-fuel vehicle aftermarket conversion certifier’s vehicles are subject to the post-installation test requirement of paragraph (c)(2) of this section.

(iii) If the clean-fuel vehicle aftermarket conversion certifier granted an exemption originally estimates that 300 or fewer conversions would be performed in the calendar year, and then later revises the estimate to more than 300 for the year, the certifier shall inform the Administrator of such revision. A post-installation emissions test for each conversion performed after the estimate is revised is required pursuant to the requirements of paragraph (c)(2) of this section. The estimated number of conversions from such a clean-fuel vehicle aftermarket conversion certifier must be greater than 300 in the following calendar year.

(2) A clean-fuel vehicle aftermarket conversion certifier with aggregate sales less than 10,000 converted vehicles within a given calendar year shall conduct post-installation emissions testing using either of the following test methods:

(i) The carbon monoxide (CO) emissions of the converted vehicle must be determined in the manner in which CO emissions are determined according to the inspection and maintenance requirements applicable in the area in which the vehicle is converted or is expected to be operated.

(A) For dual-fuel vehicles, a separate test is required for each fuel on which the vehicle is capable of operating. For flexible fuel vehicles, a single test is required on a fuel that falls within the range of fuel mixtures for which the vehicle was designed. The test fuel(s) used must be commercially available.

(B) A converted vehicle shall be considered to meet the requirements of this paragraph if the vehicle’s measured exhaust CO concentration(s) is lower than the cutpoint(s) used to determine CO pass/fail under the inspection and maintenance program in the area in which the conversion is expected to be operated.

(1) If CO pass/fail criteria are not available for a vehicle fuel type then pass/fail criteria specific to gasoline use are to be used for vehicles of that fuel type.

(2) [Reserved]

(ii) The carbon monoxide (CO) emissions of the converted vehicle must be determined in the manner specified in the two speed idle test—EPA 91 found in 40 CFR 85.2215. All provisions in the two speed idle test must be observed except as detailed in paragraph (c)(2)(i)(D) of this section.

(A) For dual and flexible fuel vehicles, a separate test is required for each certification test fuel required for exhaust emissions testing pursuant to 40 CFR 86.113 or 40 CFR 86.1313.

(B) For light-duty vehicles and light-duty trucks the test fuels used during
the emissions testing required by paragraph (c)(4) of this section must comply with the fuel specifications for exhaust emissions testing found in 40 CFR 86.113. For heavy-duty engines the test fuels used during the emissions testing required by paragraph (c)(2) of this section must comply with the fuel specifications for exhaust emissions testing found in 40 CFR 86.1313.

(C) A converted vehicle shall be considered to meet the requirements of this paragraph if the following criteria are satisfied:

(1) The vehicle’s measured idle mode exhaust CO concentration(s) must be lower than the sum of 0.4 percent CO plus the idle mode certification CO emissions reference value as determined according to the requirements of paragraph (b)(3) of this section.

(2) The vehicle’s measured high-speed mode exhaust CO concentration(s) must be lower than the sum of 0.4 percent CO plus the high-speed certification CO emissions reference value as determined according to the requirements of paragraph (b)(3) of this section.

(D) For the purposes of the post-installation emissions testing required by paragraph (c) of this section, the following adjustments to the two speed idle test-EPA 91 in 40 CFR 85.2215 are necessary.

(1) Testing of hydrocarbon emissions and equipment associated solely with hydrocarbon emissions testing is not required.

(2) The CO emissions pass/fail criteria in 40 CFR 85.2215(a)(2), (c)(1)(i)(A), (c)(2)(i)(A)(I), (c)(2)(i)(A)(II), (c)(2)(ii)(A)(I), and (d)(3)(i) are to be replaced with the pass/fail criteria detailed in paragraph (c)(2)(ii)(C) of this section. All HC pass/fail criteria in 40 CFR 85.2215 do not apply.

(3) The void test criteria in 40 CFR 85.2215(a)(3) and (b)(2)(iv) associated with maintaining the measured concentration of CO plus CO\textsuperscript{2} above six percent does not apply. However, the Administrator may reconsider requiring that the void test criteria in 40 CFR 85.2215(a)(3) and (b)(2)(iv) be applied, and may issue an advisory memorandum to this effect in the future.

(4) The ambient temperature levels encountered by the vehicle during testing must comply with the specifications in 40 CFR 86.130 or 40 CFR 86.1330.

(d) The clean-fuel vehicle aftermarket conversion certifier shall be considered a manufacturer for purposes of Clean Air Act sections 206 and 207 and related enforcement provisions, and must accept liability for in-use performance of all the vehicles produced under the certificate of conformity as outlined in 40 CFR part 85.

(1) The useful life period for the purposes of determining the in-use liability of the clean-fuel vehicle aftermarket conversion certifier shall be the original useful life of the vehicle prior to conversion.

(2) [Reserved]

(e) Tampering. (1) The conversion from an engine or vehicle capable of operating on gasoline or diesel fuel only to a clean-fuel engine or vehicle shall not be considered a violation of the tampering provisions of Clean Air Act section 203(a)(3), if such conversion is done pursuant to a conversion configuration certificate by the aftermarket conversion certifier or by an installer listed on the certificate.

(2) In order to comply with the provisions of this subpart, an aftermarket conversion installer must:

(i) Install a certified aftermarket conversion system for which the installer is listed by the certifier; and

(ii) Perform such installation according to instructions provided by the aftermarket conversion certifier.

(f) Data collection. The clean-fuel vehicle aftermarket conversion certifier is responsible for maintaining records of each engine and vehicle converted for use in the Clean Fuel Fleets program for a period of 5 years. The records are to include the engine or vehicle make, engine or vehicle model, engine or vehicle model year, and engine or vehicle identification number of converted engines and vehicles; the certification number of the conversion configuration; the brand names and part numbers of the parts included in the conversion configuration; the date of the conversion and the facility at which the conversion was performed; and the results of post-installation
§ 88.307–94 Exemption from temporal transportation control measures for CFFVs.

(a) States with covered areas shall exempt any CFFV required by law to participate in the clean-fuel fleet program or any vehicle generating credits under §88.304–94(c) from transportation control measures (TCMs) existing wholly or partially for air quality reasons included in an approved state implementation plan which restrict vehicle usage based primarily on temporal considerations, such as time-of-day and day-of-week exemptions. However, CFFVs shall not qualify for TCMs where the temporal element is secondary to some other control element and, in no case, shall such exemptions apply if they create a clear and direct safety hazard. This exemption does not include access to high occupancy vehicle (HOV) lanes, except as provided in §88.313–93.

(b) States shall also grant temporal TCM exemptions to qualifying CFFVs being operated after SIP approval, but prior to the effective date for commencement of a state’s CFFV credit program.

(c) Temporal TCM exemptions provided for in paragraph (a) of this section are not effective outside of the areas for which states can be required to establish CFFV credit programs.

(1) Such exemptions shall remain effective only while the subject vehicle remains in compliance with applicable CFFV emissions standards and other CFFV credit program requirements.

(2) CFFV TCM exemptions shall not be transferred between vehicles within the same fleet nor shall they be sold or traded.

§ 88.308–94 Programmatic requirements for clean-fuel fleet vehicles.

(a) Multi-State nonattainment areas. The states comprising a multi-State nonattainment area shall, to the greatest extent possible, promulgate consistent clean-fuel fleet vehicle programs.

(b) Program start date. The SIP revision shall provide that the clean fuel vehicle purchase requirements begin to apply no later than model year 1999.

§ 88.309 [Reserved]

§ 88.310–94 Applicability to covered Federal fleets.

(a) Compliance by Federal vehicles. As per section 258(a) of the Act, fleets owned or operated by any agency, department, or instrumentality of the United States shall comply with the applicable state regulations concerning CFFVs established in the SIP revision. Such fleets shall be treated in the same manner as private or other government fleets under the applicable state regulations.

(1) Federal agencies shall obtain CFFVs from original equipment manufacturers, to the extent possible, as required under section 248 of the CAA.

(2) The Secretary of Defense may exempt any vehicle(s) from the provisions of any CFFV credit program established in the SIP revision by certifying to the Administrator in writing that inclusion of the specified vehicle(s) in such a program could have an adverse impact on the national security. The Secretary of Defense shall also provide a copy of this statement of exemption to the state agency administering the CFFV credit program in the covered area in which the specified vehicle(s) is registered/operated.

(b) [Reserved]


(a) Certification. (1) Emissions Testing Procedures. A vehicle shall be certified as an ILEV if that vehicle satisfies the following conditions:

(i) The vehicle shall be certified under the appropriate exhaust emissions standards from paragraph (c) or (d) of this section depending on the vehicle’s weight classification.

(ii) The vehicle shall be certified as having fuel vapor emissions which are five or less total grams per test as measured by the current Federal Test Procedure (FTP), modified for ILEV
certification, from 40 CFR part 86, subpart B for LDVs and LDTs and from 40 CFR part 86, subpart M for HDVs.

(A) After disabling any and all auxiliary emission control devices (canister, purge system, etc.) related to control of evaporative emissions, the fuel vapor emissions shall be measured using the FTP regulations in effect at the time the vehicle is to be certified as an ILEV. For purposes of this section, the vehicle’s fuel vapor emissions shall consist of the total grams of diurnal, hot soak, running loss, and resting loss emissions, as appropriate, for the particular fuel/vehicle/engine combination to be tested. In determining ILEV evaporative emissions, the diurnal emissions measurement procedure shall consist of a single diurnal heat build using an ambient or fuel temperature range of 72°-96 °F (22°-36 °C), as appropriate for the applicable FTP regulations (40 CFR part 86).

(B) Conventional Federal Test Procedure. A vehicle with no evaporative emissions control system components may have its evaporative emissions certified for its particular GVWR weight class/subclass if it passes the conventional evaporative emissions FTP from 40 CFR part 86, subpart B for LDVs and LDTs or from 40 CFR part 86, subpart M for HDVs, as applicable.

(iii) The vehicle must meet other special requirements applicable to conventional or clean-fuel vehicles and their fuels as described in any other parts of this chapter, including 40 CFR parts 86 and 88.

(2) Vehicles which have a closed or sealed fuel system may be certified at the administrator’s option by engineering evaluation in lieu of testing. These vehicles will be certified as ILEVs only if a leak in the fuel system would result in the vehicle becoming inoperative due to loss of fuel supply, or if half the fuel escapes within 24 hours.

(b) Identification. In the application for a vehicle’s certification as an ILEV, the manufacturer or the manufacturer’s agent shall provide for positive identification of the vehicle’s status as an ILEV in the vehicle’s Vehicle Emission Control Information (VECI) label in accordance with 40 CFR 86.094–35 and 86.095–35. The label shall contain a highlighted statement (e.g., underscored or boldface letters) that the vehicle is certified to applicable emission standards for ILEV exhaust and evaporative emission standards.

(c) Light-duty vehicles and light-duty trucks. ILEVs in LDV and LDT classes shall have exhaust emissions which do not exceed the LEV exhaust emission standards for NMOG, CO, HCHO, and PM and the ULEV exhaust emission standards for NOX listed in Tables A194–1 through A194–6 for light-duty CFVs. Exhaust emissions shall be measured in accordance with the test procedures specified in §88.104–94(k). An ILEV must be able to operate on only one fuel, or must be certified as an ILEV on all fuels on which it can operate. These vehicles shall also comply with all requirements of 40 CFR part 86 which are applicable to conventional gasoline-fueled, methanol-fueled, diesel-fueled, natural gas-fueled or liquefied petroleum gas-fueled LDVs/ LDTs of the same vehicle class and model year.

(d) Heavy-duty vehicles. ILEVs in the HDV class shall have exhaust emissions which do not exceed the exhaust emission standards in grams per brake horsepower-hour listed in §88.105–94(d). Exhaust emissions shall be measured in accordance with the test procedures specified in §88.105–94(e). An ILEV must be able to operate on only one fuel, or must be certified as an ILEV on all fuels on which it can operate. These vehicles shall also comply with all requirements of 40 CFR part 86 which are applicable in the case of conventional gasoline-fueled, methanol-fueled, diesel-fueled, natural gas-fueled or liquefied petroleum gas-fueled HDVs of the same weight class and model year.

(e) Applicability. State actions to opt out of the clean-fuel fleet program under section 182(c) of the Act do not affect the applicability of the ILEV program in the affected states.

§ 88.311–98, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see §88.311–93.”

(a) heading through (a)(1)(ii) [Reserved]. For guidance see §88.311–93.

(iii) The vehicle must meet other special requirements applicable to conventional or clean-fuel vehicles and their fuels as described in any other regulations in 40 CFR chapter I, subchapter C, including 40 CFR parts 86 and 88 (e.g., onboard refueling provisions).

(b) through (e) [Reserved]. For guidance see §88.311–93.

[59 FR 16309, Apr. 6, 1994]

EFFECTIVE DATE NOTE: The new information collection requirements for §88.311–98 published in the Federal Register at 59 FR 16309, Apr. 6, 1994, which apply to 1998 and later model year vehicles, have not been approved by the Office of Management and Budget (OMB) and are not effective.

§ 88.312–93 Inherently Low-Emission Vehicle labeling.

(a) Label design. (1) Label design shall consist of either of the following specifications:

(i) The label shall consist of a white rectangular background, approximately 12 inches (30 centimeters) high by 18 inches (45 centimeters) wide, with “CLEAN AIR VEHICLE” printed in contrasting block capital letters at least 4.3 inches (10.6 centimeters) tall and 1.8 inches (4.4 centimeters) wide with a stroke width not less than 0.5 inches (1.3 centimeters). In addition, the words “INHERENTLY LOW-EMISSION VEHICLE” must be present in lettering no smaller than 1 inch (2.5 centimeters) high. Nothing shall be added to the label which impairs readability. Labels shall include a serialized identification number; or

(ii) The label shall consist of a white truncated-circular background, approximately 10 inches (25 centimeters) in diameter by 7 inches (17.5 centimeters) in height. The bottom edge of the truncated-circular background shall be approximately 2 inches (5 centimeters) from the center. The acronym “ILEV” shall be printed on the label in contrasting block capital letters at least 2 inches (5 centimeters) tall and 1.5 inches (3.8 centimeters) wide with a stroke width not less than 0.8 inches (2.0 centimeters) high. Nothing shall be added to the label which impairs readability. Labels shall include a serialized identification number.

(2) The ILEV label shall be fabricated or affixed to a vehicle in such a manner that its removal from the vehicle cannot be accomplished without defacing or destroying the label in whole or in part.

(3) Along with the manufacturer’s application to certify a particular ILEV engine class, the manufacturer or the manufacturer’s agent shall submit to EPA ILEV labels or reasonable facsimiles of the types which may be mounted on a certified ILEV vehicle of that class.

(b) Eligibility. Vehicle manufacturers or their agents must install ILEV labels on a certified ILEV vehicle at the time of its sale to an eligible fleet owner if the vehicle is to be eligible for expanded TCM exemptions. An eligible fleet owner is one who is in a covered area and owns a total of at least ten motor vehicles (including the ILEV(s) being purchased) which operate in the owner’s fleet. All of the following shall be provided to demonstrate eligibility:

Photocopies of no less than nine motor vehicle registrations indicating registration in the ILEV purchaser’s name, a signed statement by the ILEV purchaser that these vehicles are operational in the purchaser’s fleet and that the ILEV being purchased will also be operated in this fleet, and a signed statement by the ILEV purchaser that these vehicles are operational in the purchaser’s fleet and that the ILEV being purchased will also be operated in this fleet, and a signed statement by the ILEV purchaser that these vehicles are operational in the purchaser’s fleet and that the ILEV being purchased will also be operated in this fleet, and a signed statement by the ILEV purchaser that these vehicles are operational in the purchaser’s fleet and that the ILEV being purchased will also be operated in this fleet, and a signed statement by the ILEV purchaser that these vehicles are operational in the purchaser’s fleet and that the ILEV being purchased will also be operated in this fleet.

(c) ILEV Label installation. (1) Except as provided for in this paragraph (c), no person shall attach an ILEV label or any facsimile of an ILEV label to any vehicle.

(2)(i) The manufacturer or the manufacturer’s agent shall attach three labels on the vehicle in plain sight: One
on the rear of the vehicle and one on each of two sides of the vehicle. Each label shall conform to the specifications of paragraph (a) of this section.

(ii) In the case that an ILEV label of the proportions specified in paragraph (a)(1) of this section cannot be attached to the rear of the ILEV, the manufacturer or the manufacturer’s agent shall attach to the rear of the vehicle an ILEV label of either of the following proportions:

(A) The label shall consist of a white rectangular background, approximately 4 inches (10 centimeters) high by 24 inches (60 centimeters) wide, with “CLEAN AIR VEHICLE” printed in contrasting block capital letters at least 2.8 inches (7 centimeters) tall and 1.3 inches (3.5 centimeters) wide with a stroke width not less than 0.3 inches (0.8 centimeter). In addition, the words “INHERENTLY LOW-EMISSION VEHICLE” must be present in lettering no smaller than 0.6 inches (1.5 centimeters) high. Nothing shall be added to the label which impairs readability. Labels shall include a serialized identification number; or

(B) The label shall consist of a white truncated-circular background, approximately 5 inches (12.5 centimeters) in diameter by 3.5 inches (8.8 centimeters) in height. The bottom edge of the truncated-circular background shall be approximately 1 inch (2.5 centimeters) from the center. The acronym “ILEV” shall be printed on the label in contrasting block capital letters at least 1 inch (2.5 centimeters) tall and 0.8 inches (2.0 centimeters) wide with a stroke width not less than 0.3 inches (0.8 centimeters). In addition, the words “CLEAN AIR VEHICLE” must be present in lettering no smaller than 0.4 inches (1.0 centimeter) high. Nothing shall be added to the label which impairs readability. Labels shall include a serialized identification number.

(d) Label removal. Fleet ILEV owners shall remove and dispose of the ILEV labels on a vehicle before selling or transferring ownership of an ILEV or offering it for lease (unless the ILEV is part of a daily rental fleet) or long-term loan. This provision shall not apply if the person who is receiving the vehicle demonstrates eligibility for expanded TCM exemptions under the federal ILEV program as described in paragraph (b) of this section, or is otherwise qualified under state regulations which expressly expand ILEV label eligibility.

(e) Label replacement. (1) The manufacturer shall make replacement ILEV labels available to the fleet owner of a qualifying ILEV to replace any ILEV label which has been lost or removed due to vehicle damage, repair, sale, or lease. The fleet owner’s request shall include proof of ownership of the ILEV in question and proof of the fleet owner’s eligibility for ILEV TCM exemptions, as outlined in paragraph (c) of this section. Each label shall be imprinted with the same serial number as initially assigned to the damaged/missing ILEV label(s) for that vehicle. Any portion of a damaged label remaining on the ILEV shall be removed from the vehicle and submitted with the request as proof of loss.

(2) Upon receipt of the replacement ILEV label(s), the fleet owner shall attach the new ILEV label(s) only to the vehicle for which replacement ILEV label(s) were requested.

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for air quality reasons included in approved state implementation plans which restrict vehicle usage based primarily on temporal considerations, such as time-of-day and day-of-week exemptions.

(c) Exemption from high-occupancy vehicle lane restrictions. (1) A fleet vehicle which has been certified and labeled as an ILEV according to the provisions of §§88.311 and 88.312 and which continues to be in compliance with applicable emissions standards and other ILEV program requirements shall be exempt from TCMs which restrict a vehicle’s access to certain roadway lanes based on the number of occupants in that vehicle, usually known as high-occupancy vehicle (HOV) lanes. These exemptions shall not apply if they would create a clear and direct safety hazard.

(2) In a state containing a covered area, or areas, the governor may petition the Administrator for a waiver from the exemption from HOV lane restrictions for ILEVs for any section of HOV lane in the covered area(s) that can be shown to be congested primarily due to the operation or projected operation of ILEVs. The waiver application shall demonstrate the infeasibility of other means of alleviating HOV/CAV lane congestion, such as adding an additional HOV/CAV lane, further increasing vehicle occupancy requirements and reducing the use of the lane by noneligible vehicles.

TABLES TO SUBPART C OF PART 88

TABLE C94–1—FLEET CREDIT TABLE BASED ON REDUCTION IN NMOG. VEHICLE EQUIVALENTS FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS

<table>
<thead>
<tr>
<th>NMOG</th>
<th>LDV, LDT ≤6000 GVWR</th>
<th>LDT &gt;6000 GVWR, ≤3750 LWV</th>
<th>LDT &gt;6000 GVWR, &gt;3750 LWV</th>
<th>LDT &gt;6000 GVWR, ≤3750 ALVW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALVW</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.26</td>
<td>0.71</td>
<td>0.91</td>
<td>1.11</td>
</tr>
<tr>
<td>ULEV</td>
<td>1.20</td>
<td>1.54</td>
<td>1.00</td>
<td>1.26</td>
<td>1.56</td>
</tr>
<tr>
<td>ZEV</td>
<td>1.43</td>
<td>1.83</td>
<td>1.43</td>
<td>1.83</td>
<td>2.23</td>
</tr>
</tbody>
</table>

TABLE C94–1.2—CREDIT GENERATION: PURCHASING A ULEV OR ZEV TO MEET THE MANDATE

<table>
<thead>
<tr>
<th>NMOG</th>
<th>LDV, LDT ≤6000 GVWR</th>
<th>LDT &gt;6000 GVWR, ≤3750 LWV</th>
<th>LDT &gt;6000 GVWR, &gt;3750 LWV</th>
<th>LDT &gt;6000 GVWR, ≤3750 ALVW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALVW</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>ULEV</td>
<td>0.20</td>
<td>0.29</td>
<td>0.29</td>
<td>0.34</td>
<td>0.45</td>
</tr>
<tr>
<td>ZEV</td>
<td>0.43</td>
<td>0.57</td>
<td>0.71</td>
<td>0.91</td>
<td>1.11</td>
</tr>
</tbody>
</table>

TABLE C94–1.3—CREDIT NEEDED IN LIEU OF PURCHASING A LEV TO MEET THE MANDATE

<table>
<thead>
<tr>
<th>NMOG</th>
<th>LDV, LDT ≤6000 GVWR</th>
<th>LDT &gt;6000 GVWR, ≤3750 LWV</th>
<th>LDT &gt;6000 GVWR, &gt;3750 LWV</th>
<th>LDT &gt;6000 GVWR, ≤3750 ALVW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALVW</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.26</td>
<td>0.71</td>
<td>0.91</td>
<td>1.11</td>
</tr>
</tbody>
</table>
**Environmental Protection Agency**

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**TABLE C94—2—FLEET CREDIT TABLE BASED ON REDUCTION IN NMOG+NO\(_X\) VEHICLE EQUIVALENTS FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS**

**TABLE C94—2.1—CREDIT GENERATION: PURCHASING MORE CLEAN-FUEL VEHICLES THAN REQUIRED BY THE MANDATE**

<table>
<thead>
<tr>
<th>NMOG+NO(_X)</th>
<th>LDV, LDT ≤6000 GVWR</th>
<th>LDT &gt;6000 GVWR</th>
<th>LDT &gt;6000 GVWR, ≥3750 LW, ≤5750 LVW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV, ≤5750 ALV</th>
<th>LDT &gt;6000 GVWR, &gt;5750 ALV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.39</td>
<td>0.33</td>
<td>0.43</td>
<td>0.52</td>
</tr>
<tr>
<td>ULEV</td>
<td>1.09</td>
<td>1.52</td>
<td>1.00</td>
<td>1.39</td>
<td>2.06</td>
</tr>
<tr>
<td>ZEV</td>
<td>1.73</td>
<td>2.72</td>
<td>1.73</td>
<td>2.72</td>
<td>3.97</td>
</tr>
</tbody>
</table>

**TABLE C94—2.2—CREDIT GENERATION: PURCHASING A ULEV OR ZEV TO MEET THE MANDATE**

<table>
<thead>
<tr>
<th>NMOG+NO(_X)</th>
<th>LDV, LDT ≤6000 GVWR</th>
<th>LDT &gt;6000 GVWR</th>
<th>LDT &gt;6000 GVWR, ≥3750 LW, ≤5750 LVW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV, ≤5750 ALV</th>
<th>LDT &gt;6000 GVWR, &gt;5750 ALV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>ULEV</td>
<td>0.09</td>
<td>0.13</td>
<td>0.67</td>
<td>0.96</td>
<td>1.54</td>
</tr>
<tr>
<td>ZEV</td>
<td>0.73</td>
<td>1.34</td>
<td>1.40</td>
<td>2.29</td>
<td>3.45</td>
</tr>
</tbody>
</table>

**TABLE C94—2.3—CREDIT NEEDED IN LIEU OF PURCHASING A LEV TO MEET THE MANDATE**

<table>
<thead>
<tr>
<th>NMOG+NO(_X)</th>
<th>LDV, LDT ≤6000 GVWR</th>
<th>LDT &gt;6000 GVWR</th>
<th>LDT &gt;6000 GVWR, ≥3750 LW, ≤5750 LVW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV, ≤5750 ALV</th>
<th>LDT &gt;6000 GVWR, &gt;5750 ALV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.39</td>
<td>0.33</td>
<td>0.43</td>
<td>0.52</td>
</tr>
</tbody>
</table>

**TABLE C94—3—FLEET CREDIT TABLE BASED ON REDUCTION IN CARBON MONOXIDE VEHICLE EQUIVALENTS FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS**

**TABLE C94—3.1—CREDIT GENERATION: PURCHASING MORE CLEAN-FUEL VEHICLES THAN REQUIRED BY THE MANDATE**

<table>
<thead>
<tr>
<th>CO</th>
<th>LDV, LDT ≤6000 GVWR</th>
<th>LDT &gt;6000 GVWR</th>
<th>LDT &gt;6000 GVWR, ≥3750 LW, ≤5750 LVW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV, ≤5750 ALV</th>
<th>LDT &gt;6000 GVWR, &gt;5750 ALV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>ULEV</td>
<td>2.00</td>
<td>2.29</td>
<td>2.00</td>
<td>2.29</td>
<td>2.47</td>
</tr>
<tr>
<td>ZEV</td>
<td>3.00</td>
<td>3.59</td>
<td>3.00</td>
<td>3.59</td>
<td>3.94</td>
</tr>
</tbody>
</table>

**TABLE C94—3.2—CREDIT GENERATION: PURCHASING A ULEV OR ZEV TO MEET THE MANDATE**

<table>
<thead>
<tr>
<th>CO</th>
<th>LDV, LDT ≤6000 GVWR</th>
<th>LDT &gt;6000 GVWR</th>
<th>LDT &gt;6000 GVWR, ≥3750 LW, ≤5750 LVW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV, ≤5750 ALV</th>
<th>LDT &gt;6000 GVWR, &gt;5750 ALV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>ULEV</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Table C94–3.2—Credit Generation: Purchasing a ULEV or ZEV To Meet the Mandate—Continued

<table>
<thead>
<tr>
<th></th>
<th>LDV, LDT ≤6000 GVWR, ≤3750 LW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 LW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ZEV</td>
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<td>2.29</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Table C94–3.3—Credit Needed in Lieu of Purchasing a LEV To Meet the Mandate

<table>
<thead>
<tr>
<th></th>
<th>LDV, LDT ≤6000 GVWR, ≤3750 LW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 LW</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV</th>
<th>LDT &gt;6000 GVWR, &gt;3750 ALV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEV</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table C94–4—Fleet Credit Table Based on Reduction in NMHC+NO\textsubscript{X} Vehicle Equivalents for Heavy-Duty Vehicles—Table C94–4.1—Credit Generation: Purchasing More Clean-Fuel Vehicles Than Required by the Mandate

<table>
<thead>
<tr>
<th>NMHC+NO\textsubscript{X}</th>
<th>Light HDV</th>
<th>Medium HDV</th>
<th>Heavy HDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>ULEV</td>
<td>1.87</td>
<td>1.87</td>
<td>1.87</td>
</tr>
<tr>
<td>ZEV</td>
<td>3.53</td>
<td>3.53</td>
<td>3.53</td>
</tr>
</tbody>
</table>

Table C94–4.2—Credit Generation: Purchasing a ULEV or ZEV To Meet the Mandate

<table>
<thead>
<tr>
<th>NMHC+NO\textsubscript{X}</th>
<th>Light HDV</th>
<th>Medium HDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>ULEV</td>
<td>0.87</td>
<td>0.87</td>
</tr>
<tr>
<td>ZEV</td>
<td>2.53</td>
<td>2.53</td>
</tr>
</tbody>
</table>

Table C94–4.3—Credit Needed in Lieu of Purchasing a LEV to Meet the Mandate

<table>
<thead>
<tr>
<th>NMHC+NO\textsubscript{X}</th>
<th>Light HDV</th>
<th>Medium HDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table C94–5—Fleet Credit Table Based on Reduction in CO, Vehicle Equivalents for Heavy-Duty Vehicles—Table C94–5.1—Credit Generation: Purchasing More Clean-Fuel Vehicles Than Required by the Mandate—Continued

<table>
<thead>
<tr>
<th>CO</th>
<th>Light HDV</th>
<th>Medium HDV</th>
<th>Heavy HDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZEV</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Table C94–5.2—Credit Generation: Purchasing a ULEV or ZEV to Meet the Mandate

<table>
<thead>
<tr>
<th>CO</th>
<th>Light HDV</th>
<th>Medium HDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>ULEV</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>ZEV</td>
<td>2.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Table C94–5.3—Credit Needed in Lieu of Purchasing a LEV to Meet the Mandate

<table>
<thead>
<tr>
<th>CO</th>
<th>Light HDV</th>
<th>Medium HDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>