given by the manufacturer for the voided test. Tests between test points may be conducted as required by the Administrator. Data from all tests (including voided tests) may be submitted weekly to the Administrator, but shall be air posted or delivered to the Administrator within 7 days after completion of the test. In addition, all test data shall be compiled and provided to the Administrator in accordance with §86.092–23. Where the Administrator conducts a test on a durability-data vehicle at a prescribed test point, the results of that test will be used in the calculation of the deterioration factor.

(ii) The results of all emission tests shall be recorded and reported to the Administrator. These test results shall be rounded, in accordance with ASTM E 29–67, to the number of decimal places contained in the applicable emission standard expressed to one additional significant figure.

(3) Whenever a manufacturer intends to operate and test a vehicle (or engine) which may be used for emission data, the manufacturer shall retain in its records all information concerning all emissions tests and maintenance, including vehicle (or engine) alterations to represent other vehicle (or engine) selections. This information shall be submitted, including the vehicle (or engine) description and specification information required by the Administrator, to the Administrator following the emission-data test.

(4)–(5) [Reserved]

(6) Emission testing of any type with respect to any certification vehicle or engine other than that specified in this subpart is not allowed except as such testing may be specifically authorized by the Administrator.

[55 FR 7194, Feb. 28, 1990]

§86.092–35 Labeling.

(a) The manufacturer of any motor vehicle (or motor vehicle engine) subject to the applicable emission standards (and family emission limits, as appropriate) of this subpart, shall, at the time of manufacture, affix a permanent legible label, of the type and in the manner described below, containing the information hereinafter provided, to all production models of such vehicles (or engines) available for sale to the public and covered by a certificate of conformity under §86.091–30(a).

(1) *Light-duty vehicles.* (i) A permanent, legible label shall be affixed in a readily visible position in the engine compartment.

(ii) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment which is easily detached from such vehicle.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label:

(A) The label heading: Vehicle Emission Control Information;

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches or liters), engine family identification and evaporative family identification;

(D) Engine tune-up specifications and adjustments, as recommended by the manufacutrer in accordance with the applicable emission standards (or family emission limits, as applicable), including but not limited to idle speeds(s), ignition timing, the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing and valve lash (as applicable), as well as other parameters deemed necessary by the manufacturer. These specifications should indicate the proper transmission position during tuneup and what accessories (e.g., air conditioner), if any, should be in operation;

(E) An unconditional statement of compliance with the appropriate model year U.S. Environmental Protection Agency regulations which apply to light-duty vehicles;

(F) For vehicles which are part of the diesel particulate averaging program, the family particulate emission limit to which the vehicle is certified;

(G) For vehicles that have been exempted from compliance with the emission standards at high altitude, as specified in §86.090–8(h):

(*1*) A highlighted statement (e.g., underscored or boldface letters) that the vehicle is certified to applicable emission standards at low altitude only;

(*2*) A statement that the vehicle's unsatisfactory performance under high-altitude conditions makes it unsuitable for principal use at high altitude, and

(*3*) A statement that the emission performance warranty provisions of 40 CFR part 85, subpart V do not apply when the vehicle is tested at high altitude; and

(H) For vehicles that have been exempted from compliance with the emission standards at low altitude, as specified in § 86.090–8(i):

(*1*) A highlighted statement (e.g., underscore or boldface letters) that the vehicle is certified to applicable emission standards at high altitude only; and

(*2*) A statement that the emission performance warranty provisions of 40 CFR part 85, subpart V do not apply when the vehicle is tested at low altitude.

(I) The vacuum hose routing diagram applicable to the vehicles if the vehicles are equipped with vacuum actuated emission and emission-related components. The manufacturer may, at its option, use a separate label for the vacuum hose routing diagram provided that the vacuum hose diagram is placed in a visible and accessible position as provided in this section.

(J) Vehicles granted final admission under § 85.1505 must comply with the labeling requirements contained in § 85.1510.

(2) *Light-duty truck and heavy-duty vehicles optionally certified in accordance with the light-duty truck provisions.* (i) A legible, permanent label shall be affixed in a readily visible position in the engine compartment.

(ii) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such a manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment which is easily detached from such vehicle.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label.

(A) The label heading: Important Vehicle Information;

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches or liters) and engine family identification;

(D) Engine tune-up specifications and adjustments, as recommended by the manufacturer in accordance with the applicable emission standards (or family emission limits, as appropriate), including but not limited to idle speed(s), ignition timing, the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing, and valve lash (as applicable), as well as other parameters deemed necessary by the manufacturer. These specifications should indicate the proper transmission position during tuneup and what accessories (e.g., air conditioner), if any, should be in operation. If adjustments or modifications to the vehicle are necessary to insure compliance with emission standards (or family emission limits, as appropriate) at either high or low altitude, the manufacturer shall either include the instructions for such adjustments on the label, or indicate on the label where instructions for such adjustments may be found. The label shall indicate whether the engine tune-up or adjustment specifications are applicable to high altitude, low altitude, or both;

(E)(*1*) *Light-duty trucks.* One of the prominent statements, as applicable:

(*i*) Labels for light-duty trucks certified to the oxides of nitrogen standard of 1.12 grams per vehicle mile shall include the following statement: "This vehicle conforms to U.S. EPA regulations applicable to 19 __ Model Year New Light-Duty Trucks."

(*ii*) Labels for light-duty trucks certified to the oxides of nitrogen standard of 1.7 grams per vehicle mile shall include the following statement: "This vehicle conforms to U.S. EPA regulations applicable to 19 __ Model Year New Light-Duty Trucks with a curb weight greater than 3,450 pounds."

(*2*) *Heavy-duty vehicles optionally certified in accordance with the light-duty*

truck provisions. "This heavy-duty vehicle conforms to the U.S. EPA regulations applicable to 19___ Model Year Light-Duty Trucks under the special provision of 40 CFR 86.092–1(b)."

(F) If the manufacturer is provided an alternate useful life period under the provisions of §86.091–21(f), the prominent statement: "This vehicle has been certified to meet U.S. EPA standards for a useful-life period of __ years or ____ miles of operation, whichever occurs first. This vehicle's actual life may vary depending on its service application." The manufacturer may alter this statement only to express the assigned alternate useful life in terms other than years or miles (e.g., hours, or miles only).

(G) A statement, if applicable, that the adjustments or modifications indicated on the lable are necessary to ensure emission control compliance at the altitude specified.

(H) A statement, if applicable, that the high-altitude vehicle was designated or modified for principal use at high altitude. This statement must be affixed by the manufacturer at the time of assembly or by any dealer who performs the high-altitude modification or adjustment prior to sale to an ultimate purchaser.

(I) For vehicles that have been exempted from compliance with the high-altitude emission standards, as specified in §86.091–9(g)(2).

(*1*) A highlighted statement (e.g., underscored or boldface letters) that the vehicle is certified to applicable emission standards at low altitude only.

(*2*) A statement that the vehicle's unsatisfactory performance under high-altitude conditions makes it unsuitable for principal use at high altitude, and

(*3*) A statement that the emission performance warranty provisions of 40 CFR part 85, subpart V do not apply when the vehicle is tested at high altitude:

(J) For vehicles which are included in the diesel particulate averaging program, the family particulate emission limit to which the vehicle is certified.

(K) For vehicles which are included in the light-duty truck NO_X averaging program, the family NO_X emissions limit to which the vehicle is certified.

(L) The vacuum hose routing diagram applicable to the vehicles if the vehicles are equipped with vacuum actuated emission and emission-related components. The manufacturer may, at its option, use a separate label for the vacuum hose routing diagram provided that the vacuum hose diagram is placed in a visible and accessible position as provided by this section.

(M) Vehicles granted final admission under §85.1505 must comply with the labeling requirements contained in §85.1510.

(3) *Heavy-duty engines.* (i) A permanent legible label shall be affixed to the engine in a position in which it will be readily visible after installation in the vehicle.

(ii) The label shall be attached to an engine part necessary for normal engine operation and not normally requiring replacement during engine life.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals which shall be of a color that contrasts with the background of the label:

(A) The label heading: Important Engine Information.

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches or liters) and engine family and model designations;

(D) Date of engine manufacture (month and year). The manufacturer may, in lieu of including the date of manufacture on the engine label, maintain a record of the engine manufacture dates. The manufacturer shall provide the date of manufacture records to the Administrator upon request.

(E) Engine specifications and adjustments as recommended by the manufacturer. These specifications should indicate the proper transmission position during tune-up and what accessories (e.g., air conditioner), if any, should be in operation;

(F) For Otto-cycle engines the label should include the idle speed, ignition timing, and the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), and valve lash;

(G) For diesel engines the label should include the advertised hp at

rpm, fuel rate at advertised hp in mm^3/stroke, valve lash, initial injection timing, and idle speed;

(H) The prominent statement: "This engine conforms to U.S. EPA regulations applicable to 19___ Model Year New Heavy-Duty Engines."

(I) If the manufacturer is provided with an alternate useful life period under the provisions of § 86.901–21(f), the prominent statement: "This engine has been certified to meet U.S. EPA standards for a useful-life period of ___ miles or ___ hours of operation, whichever occurs first. This engine's actual life may vary depending on its service application." The manufacturer may alter this statement only to express the assigned alternate useful life in terms other than miles or hours (e.g., years, or hours only).

(J) *For diesel engines.* The prominent statement: "This engine has a primary intended service application as a ___ heavy-duty engine." (The primary intended service applications are light, medium, and heavy, as defined in § 86.902–2.)

(K) *For Otto-cycle engines.* One of the following statements, as applicable:

(*1*) For engines certified to the emission standards under § 86.091–10 (a)(1) (i) or (iii), the statement: "This engine is certified for use in all heavy-duty vehicles."

(*2*) for gasoline-fueled engines certified under the provisions of § 86.091–10(a)(3)(i), the statement: "This engine is certified for use in all heavy-duty vehicles under the special provision of 40 CFR § 86.091–10(a)(3)(i)."

(*3*) For engines certified to the emission standards under § 86.091–10 (a)(1) (ii) or (iv), the statement: "This engine is certified for use only in heavy-duty vehicles with a gross vehicle weight rating above 14,000 lbs."

(L) For all heavy-duty engines which are included in diesel heavy-duty particulate trading, banking or averaging programs, the particulate family emission limit to which the engine is certified.

(M) For all heavy-duty engines which are included in NO_X trading, banking or averaging programs, the NO_X family emission limit to which the engine is certified.

(N) Engines granted final admission under § 85.1505 must comply with the labeling requirements contained in § 85.1510.

(iv) The label may be made up of one or more pieces: *Provided,* That all pieces are permanently attached to the same engine or vehicle part as applicable.

(4)(i) *Gasoline-fueled and methanol-fueled heavy-duty vehicles.* A permanent, legible label shall be affixed in a readily visible position in the engine compartment. If such vehicles do not have an engine compartment, the label required in paragraphs (a)(4) and (g)(1) of this section shall be affixed in a readily visible position on the operator's enclosure or on the engine.

(ii) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such a manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment which is easily detached from such vehicle.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label:

(A) The label heading: Vehicle Emission Control Information;

(B) Full corporate name and trademark of manufacturer;

(C) Evaporative family identification;

(D) The maximum nominal fuel tank capacity (in gallons) for which the evaporative control system is certified; and,

(E) One of the following, as appropriate:

(*1*) An unconditional statement of compliance with the appropriate model year U.S. Environmental Protection Agency regulations which apply to gasoline-fueled heavy-duty vehicles.

(*2*) An unconditional statement of compliance with the appropriate model year U.S. Environmental Protection Agency regulations which apply to methanol-fueled heavy-duty vehicles.

(F) Vehicles granted final admission under § 85.1505 must comply with the labeling requirements contained in § 85.1510.

(b) The provisions of this section shall not prevent a manufacturer from also reciting on the label that such vehicle (or engine) conforms to any applicable state emission standards for new motor vehicles (or new motor vehicle engines) or any other information that such manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the vehicle (or engine).

(c)(1) The manufacturer of any light-duty vehicle or light-duty truck subject to the emission standards (or family emission limits, as appropriate) of this subpart shall, in addition and subsequent to setting forth those statements on the label required by the Department of Transportation (DOT) pursuant to 49 CFR 567.4, set forth on the DOT label or an additional label located in proximity to the DOT label and affixed as described in 40 CFR 567.4(b), the following information in the English language, lettered in block letters and numerals not less than three thirty-seconds of an inch high, of a color that contrasts with the background of the label:

(i) The heading: "Vehicle Emission Control Information."

(ii)(A) *For light-duty vehicles,* The statement: "This Vehicle Conforms to U.S. EPA Regulations Applicable to 19___ Model Year New Motor Vehicles."

(B) *For light-duty trucks,* (*1*) The statement: "This vehicle conforms to U.S. EPA regulations applicable to 19___ Model Year New Light-Duty Trucks."

(*2*) If the manufacturer is provided an alternate useful life period under the provisions of §86.091–21(f), the prominent statement: "This vehicle has been certified to meet U.S. EPA standards for a useful-life period of ___ years or ___ miles of operation, whichever occurs first. This vehicle's actual life may vary depending on its service application." The manufacturer may alter this statement only to express the assigned alternate useful life in terms other than years or miles (e.g., hours, or miles only)

(iii) One of the following statements, as applicable, in letters and numerals not less than six thirty-seconds of an inch high and of a color that contrasts with the background of the label:

(A) For all vehicles certified as non-catalyst-equipped: "NON-CATALYST"

(B) For all vehicles certified as catalyst-equipped which are included in a manufacturer's catalyst control program for which approval has been given by the Administrator: "CATALYST—APPROVED FOR IMPORT"

(C) For all vehicles certified as catalyst-equipped which are not included in a manufacturer's catalyst control program for which prior approval has been given by the Administrator: "CATALYST"

(2) In lieu of selecting either of the labeling options of paragraph (c)(1) of this section, the manufacturer may add the information required by paragraph (c)(1)(iii) of this section to the label required by paragraph (a) of this section. The required information will be set forth in the manner prescribed by paragraph (c)(1)(iii) of this section.

(d) Incomplete light-duty trucks or incomplete heavy-duty vehicles optionally certified in accordance with the light-duty truck provisions shall have one of the following prominent statements, as applicable, printed on the label required by paragraph (a)(2) of this section in lieu of the statement required by paragraph (a)(2)(iii)(E) of this section.

(1) *Light-duty trucks.* (i) Labels for light-duty trucks certified to the oxides of nitrogen standard of 1.2 grams per vehicle mile shall include the following statement: "This vehicle conforms to U.S. EPA regulations applicable to 19___ Model Year New Light-Duty Trucks when it does not exceed ___ pounds in curb weight, ___ pounds in gross vehicle weight rating, and ___ square feet in frontal area."

(ii) Labels for light-duty trucks certified to the oxides of nitrogen standards of 1.7 grams per vehicle mile shall include the following statement: "This vehicle conforms to U.S. EPA regulations applicable to 19___ Model Year New Light-Duty Trucks when it is between 3,450 pounds and ___ pounds in curb weight and it does not exceed ___ pounds in gross vehicle weight rating nor ___ square feet in frontal area."

(2) *Heavy-duty vehicles optionally certified in accordance with the light-duty truck provisions.* "This heavy-duty vehicle conforms to the U.S. EPA regulations applicable to 19___ Model Year Light-Duty Trucks under the special provision of 40 CFR 86.085–1(b) when it does not exceed ____ pounds in curb weight, ____ pounds in gross vehicle weight rating, and ____ square feet in frontal area."

(e) Incomplete heavy-duty vehicles having a gross vehicle weight rating of 8,500 pounds or less shall have one of the following statements printed on the label required by paragraph (a)(3) of this section in lieu of the statement required by paragraph (a)(3)(iii)(H) of this section: "This engine conforms to U.S. EPA regulations applicable to 19___ Model Year Heavy-Duty Engines when installed in a vehicle completed at a curb weight of more than 6,000 pounds or with a frontal area of greater than 45 square feet."

(f) The manufacturer of any incomplete light-duty vehicle or light-duty truck shall notify the purchaser of such vehicle of any curb weight, frontal area, or gross vehicle weight rating limitations affecting the emission certificate applicable to that vehicle. This notification shall be transmitted in a manner consistent with National Highway Traffic Safety Administration safety notification requirements published in 49 CFR part 568.

(g)(1)(i) Incomplete gasoline-fueled heavy-duty vehicles shall have the following prominent statement printed on the label required in paragraph (a)(4) of this section: "(Manufacturer's corporate name) has determined that this vehicle conforms to U.S. EPA regulations applicable to 19___ Model Year New Gasoline-Fueled Heavy-Duty Vehicles when completed with a nominal fuel tank capacity not to exceed __ gallons. Persons wishing to add fuel tank capacity beyond the above maximum must submit a written statement to the Administrator that the hydrocarbon storage system has been upgraded according to the requirements of 40 CFR 86.092–35(g)(2)."

(ii) Incomplete methanol-fueled heavy-duty vehicles shall have the following prominent statement printed on the label required in paragraph (a)(4) of this section: "(Manufacturer's corporate name) has determined that this vehicle conforms to U.S. EPA regulations applicable to 19___ Model Year New Methanol-Fueled Heavy-Duty Vehicles when completed with a nominal fuel tank capacity not to exceed __ gallons. Persons wishing to add fuel tank capacity beyond the above maximum must submit a written statement to the Administrator that the hydrocarbon storage system has been upgraded according to the requirements of 40 CFR 86.091–35(g)(2)."

(2) Persons wishing to add fuel tank capacity beyond the maximum specified on the label required in paragraph (g)(1) of this section shall:

(i) Increase the amount of fuel tank vapor storage material according to the following function:

$$\mathrm{Cap_f} = \mathrm{Cap_i}\left(\frac{\text{T. Vol.}}{\text{Max. Vol.}}\right)$$

Where:

$\mathrm{Cap_f}$ = final amount of fuel tank vapor storage material, grams.

$\mathrm{Cap_i}$ = initial amount of fuel tank vapor storage material, grams.

T. Vol. = total fuel tank volume of completed vehicle, gallons.

Max. Vol. = maximum fuel tank volume as specified on the label required in paragraph (g)(1) of this section, gallons.

(ii) Use, if applicable, hosing for fuel vapor routing which is at least as impermeable to hydrocarbon vapors as that used by the primary manufacturer.

(iii) Use vapor storage material with the same absorptive characteristics as that used by the primary manufacturer.

(iv) Connect, if applicable, any new hydrocarbon storage device to the existing hydrocarbon storage device in series such that the original hydrocarbon storage device is situated between the fuel tank and the new hydrocarbon storage device. The original hydrocarbon storage device shall be sealed such that vapors cannot reach the atmosphere. The elevation of the original hydrocarbon storage device shall be equal to or lower than the new hydrocarbon storage device.

(v) Submit a written statement to the Administrator that paragraphs

(g)(2)(i) through (g)(2)(iv) of this section have been complied with.

(3) If applicable, the Administrator will send a return letter verifying the receipt of the written statement required in paragraph (g)(2)(v) of this section.

(h)(1) Light-duty trucks and heavy-duty vehicles and engines for which nonconformance penalties are to be paid in accordance with §86.1113–87(b) shall have the following information printed on the label required in paragraph (a) of this section. The manufacturer shall begin labeling production engines or vehicles within 10 days after the completion of the PCA.

(i) The statement: "The manufacturer of this engine/vehicle will pay a nonconformance penalty to be allowed to introduce it into commerce at an emission level higher than the applicable emission standard. The compliance level (or new emission standard) for this engine/vehicle is _____." (The manufacturer shall insert the applicable pollutant and compliance level calculated in accordance with §86.1112–87(a).)

(2) If a manufacturer introduces an engine or vehicle into commerce prior to the compliance level determination of §86.1112–87(a), it shall provide the engine or vehicle owner with a label as described above to be affixed in a location in proximity to the label required in paragraph (a) of this section within 30 days of the completion of the PCA.

[55 FR 7197, Feb. 28, 1990, as amended at 55 FR 30627, July 26, 1990]

§86.093–2 Definitions.

The definitions of §86.092–2 continue to apply. The definitions listed in this section apply beginning with the 1993 model year.

Bus means a heavy heavy-duty diesel-powered passenger-carrying vehicle with a load capacity of fifteen or more passengers that is centrally fueled, and all urban buses. This definition only applies in the context of §§86.093–11 and 86.093–35.

Centrally fueled bus means a bus that is refueled at least 75 percent of the time at one refueling facility that is owned, operated, or controlled by the bus operator.

Urban bus means a passenger-carrying vehicle powered by a heavy heavy-duty diesel engine, or of a type normally powered by a heavy heavy-duty diesel engine, with a load capacity of fifteen or more passengers and intended primarily for intracity operation, *i.e.*, within the confines of a city or greater metropolitan area. Urban bus operation is characterized by short rides and frequent stops. To facilitate this type of operation, more than one set of quick-operating entrance and exit doors would normally be installed. Since fares are usually paid in cash or tokens, rather than purchased in advance in the form of tickets, urban buses would normally have equipment installed for collection of fares. Urban buses are also typically characterized by the absence of equipment and facilities for long distance travel, *e.g.*, rest rooms, large luggage compartments, and facilities for stowing carry-on luggage. The useful life for urban buses is the same as the useful life for other heavy heavy-duty diesel engines.

[58 FR 15795, Mar. 24, 1993]

§86.093–11 Emission standards for 1993 and later model year diesel heavy-duty engines.

(a)(1) Exhaust emissions from new 1993 and later model year diesel heavy-duty engines shall not exceed the following:

(i)(A) *Hydrocarbons (for petroleum-fueled diesel engines).* 1.3 grams per brake horsepower-hour (0.48 gram per megajoule), as measured under transient operating conditions.

(B) *Total Hydrocarbon Equivalent (for methanol-fueled diesel engines).* 1.3 grams per brake horsepower-hour (0.48 gram per megajoule), as measured under transient operating conditions.

(ii) *Carbon monoxide.* (A) 15.5 grams per brake horsepower-hour (5.77 grams per megajoule), as measured under transient operating conditions.

(B) 0.50 percent of exhaust gas flow at curb idle (methanol-fueled diesel only).

(iii) *Oxides of nitrogen.* (A) 5.0 grams per brake horsepower-hour (1.9 grams per megajoule), as measured under transient operating conditions.

(B) A manufacturer may elect to include any or all of its diesel heavy-duty engine families in any or all of the NO_X