1:1 transmission gear ratio or the lowest numerical gear ratio available in the transmission will be used to determine N–V. The gear selection must be the same for all N/V data points on the manufacturer's graph. For each transmission/axle ratio combination, only the lowest N/V value shall be used in the graphical display.

(B) The product line is then defined by the equation, $N/V = C(D/W)^{-0.9}$, where the constant, C, is determined by the requirement that all the vehicle data points either fall on the line or lie to the upper right of the line as displayed on the graphs.

(C) The exemption line is then defined by the equation, $N/V = C(0.84\ D/W)^{-0.9}$, where the constant, C is the same as that found in paragraph (g)(2)(i)(B) of this section.

(D) The exempted range includes all values of N/V and D/W which simultaneously fall to the lower left of the exemption line as drawn on the graph.

(ii) Its design parameters fall within the alternate exempted range for that manufacturer that year. The alternate exempted range is determined by substituting rated horsepower (hp) for displacement (D) in the exemption procedure described in paragraph (g)(2)(i) of this section and by using the product line $N/V = C(hp/W)^{-0.9}$.

(A) Rated horsepower shall be determined by using the Society of Automotive Engineers Test Procedure J 1349, or any subsequent version of that test procedure. Any of the horsepower determinants within that test procedure may be used, as long as it is used consistently throughout the manufacturer s product line in any model year.

(B) No exemptions will be allowed under paragraph (g)(2)(ii) of this section to any manufacturer that has exempted vehicle configurations as set forth in paragraph (g)(2)(i) of this section.

(iii) Its acceleration time (the time it takes a vehicle to accelerate from 0 to a speed not less than 40 miles per hour and not greater than 50 miles per hour) under high-altitude conditions is greater than the largest acceleration time under low-altitude conditions for that manufacturer for that year. The procedure to be followed in making this determination is:

(A) The manufacturer shall list the vehicle configuration and acceleration time under low-altitude conditions of that vehicle configuration which has the highest acceleration time under low-altitude conditions of all the vehicle configurations it will offer for the model year in question. The manufacturer shall also submit a description of the methodology used to make this determination.

(B) The manufacturer shall then list the vehicle configurations and acceleration times under high-altitude conditions of all those vehicle configurations which have higher acceleration times under high-altitude conditions than the highest acceleration time at low altitude identified in paragraph (g)(2)(iii)(A) of this section.

(iv) In lieu of performing the test procedure of paragraph (g)(2)(iii) of this section, its acceleration time can be estimated based on the manufacturer's engineering evaluation, in accordance with good engineering practice, to meet the exemption criteria of paragraph (g)(2)(iii) of this section.

(3) The sale of a vehicle for principal use at a designated high-altitude location that has been exempted as set forth in paragraph (g)(2) of this section will be considered a violation of section 203(a)(1) of the Clean Air Act.

[52 FR 47865, Dec. 16, 1987, as amended at 54 FR 14462, Apr. 11, 1989]

§ 86.090–14 Small-volume manufacturers certification procedures.

(a) The small-volume manufacturers certification procedures described in paragraphs (b) and (c) of this section are optional. Small-volume manufacturers may use these optional procedures to demonstrate compliance with the general standards and specific emission requirements contained in this subpart.

(b)(1) The optional small-volume manufacturers certification procedures apply to light-duty vehicles, light-duty trucks, and heavy-duty engines produced by manufacturers with U.S. sales (for the model year in which certification is sought) of fewer than 10,000 units (light-duty vehicles, light-duty trucks, and heavy-duty engines combined).

(2) For the purpose of determining the applicability of paragraph (b)(1) of this section, where there is more than one importer or distributor of vehicles and/or engines manufactured by the same person, the sales the Administrator shall use shall be the aggregate of the projected or actual sales of those vehicles and/or engines by all of the importers and distributors.

(c) Small-volume manufacturers shall demonstrate compliance with the applicable sections of this subpart as follows:

(1) Sections 86.090–1, 86.088–2, 86.090–3, 86.084–4, 86.090–5, 86.078–6, 86.078–7, and 86.090–8 through 86.090–11 are applicable.

(2) Section 86.080–12 is not applicable.

(3) Sections 86.085–13, 86.090–14, 86.084–15, and 86.085–20 are applicable.

(4) Small-volume manufacturers shall include in its records all of the information that EPA requires in §86.090–21. This information will be considered part of the manufacturer's application for certification. However, the manufacturer is not required to submit the information to the Administrator unless the Administrator requests it.

(5) Section 86.085–22 is applicable except as noted below.

(i) Small-volume light-duty vehicle and light-duty truck manufacturers may satisfy the requirements of paragraph (e) of §86.085–22 by including a statement of compliance on adjustable parameters in the application for certification. In the statement of compliance the manufacturer shall state that the limits, stops, seals, or other means used to inhibit adjustment have been designed to accomplish their intended purpose based on good engineering practice and past experience. If the vehicle parameter is adjustable the vehicle must meet emission standards with the parameter set any place within the adjustable range (reference §86.090–21).

(ii) Paragraphs (a), (b), (c), and (d) of §86.085–22 are not applicable.

(6) Section 86.090–23 is applicable.

(7) Section 86.085–24 is applicable except as noted below.

(i) Small-volume manufacturers may satisfy the requirements of paragraphs (b) and (c) of §86.085–24 by:

(A) Selecting emission-data test vehicles (engines) by the worst case emissions criteria as follows:

(*1*) *Light-duty vehicles and light-duty trucks.* The test vehicle shall be selected based on the following criteria: The manufacturer shall select the heaviest (including options) vehicle within the family. Then within that vehicle it shall select, in the order listed, the largest frontal area, largest displacement, the highest numerical axle ratio with the largest tire offered in the engine family, and the maximum fuel flow calibration.

(*2*) *Heavy-duty Otto-cycle engines.* The manufacturer shall select the worst case emission-data engine first based on the largest displacement within the engine family. Then within the largest displacement the manufacturer shall select, in the order listed, highest fuel flow at the speed of maximum rated torque, the engine with the most advance spark timing, no EGR or lowest EGR flow, and no air pump or lowest actual flow air pump.

(*3*) *Heavy-duty diesel engines.* The manufacturer shall select in each engine family the worst case emission data engine based on the highest fuel feed per stroke, primarily at the speed of maximum rated torque and secondarily at rated speed.

(B) Testing light-duty vehicle or light-duty truck emission-data vehicles at any service accumulation distance less than 6,436 kilometers (4,000 miles) or heavy-duty engine emission-data engines at any service accumulation time less than 125 hours.

(C) Using assigned deterioration factors that the Administrator determines and prescribes. However, the manufacturer may, at its option, accumulate miles (hours) on a durability-data vehicle (engine) and complete emission tests for the purpose of establishing its own deterioration factor.

(ii) Paragraphs (d) and (e) of §86.085–24 are not applicable.

(8) Section 86.090–25 is applicable to durability-data light-duty vehicles, light-duty trucks, and heavy-duty engines if the manufacturer does not use assigned deterioration factors.

(9) Sections 86.084–26 and 86.085–27 are not applicable.

(10) Sections 86.090–28 and 86.090–29 are applicable.

(11)(i) Section 86.090–30 of this subpart is applicable, except for paragraphs (a)(2) and (b) of that section. In the place of these paragraphs, small-volume manufacturers shall comply with paragraphs (c)(11) (ii) through (v) of this section.

(ii) Small-volume manufacturers shall submit an application for certification containing the following:

(A) The names, addresses, and telephone numbers of the persons the manufacturer authorizes to communicate with us.

(B) A brief description of the vehicles (or engines) covered by the certificate (the manufacturers' sales data book or advertising, including specifications, may satisfy this requirement for most manufacturers). The description shall include, as a minimum, the following items as applicable:

(*1*) Engine families and vehicle (or engine) configurations.

(*2*) Vehicle or engine models to be listed on the certificate of conformity.

(*3*) The test weight and horsepower setting for each vehicle or engine configuration.

(*4*) Projected sales.

(*5*) Combustion cycle.

(*6*) Cooling mechanism.

(*7*) Number of cylinders.

(*8*) Displacement.

(*9*) Fuel system type.

(*10*) Number of catalytic converters, volume, and composition.

(*11*) Method of air aspiration.

(*12*) Thermal reactor characteristics.

(*13*) Suppliers' and/or manufacturer's name and model number of any emission-related items identified in paragraphs (c)(11)(ii)(B) (*1*) through (*12*) of this section, if purchased from a supplier or manufacturer who uses the items in its own certified vehicles(s) or engine(s).

(*14*) A list of emission component part numbers.

(*15*) Drawings, calibration curves, and descriptions of emission related components, including those components regulated under paragraph (e) of §86.085–22, and schematics of hoses and other devices connecting these components.

(*16*) Vehicle adjustments or modifications necessary for light duty trucks to assure that they conform to high altitude standards.

(*17*) A description of the light-duty vehicles and light-duty trucks that are exempted from either the low- or high-altitude emission standards, as applicable.

(C) The results of all emission tests the manufacturer performs to demonstrate compliance with the applicable standards.

(D)(*1*) The following statement signed by the authorized representative of the manufacturer: "The vehicles (or engines) described herein have been tested in accordance with [list of the applicable subparts A, B, D, I, N, or P] of part 86, title 40, United States Code of Federal Regulations, and on the basis of those tests are in conformance with that subpart. All of the data and records required by that subpart are on file and are available for inspection by the EPA Administrator. We project the total U.S. sales of vehicles (engines) subject to this subpart to be fewer than 10,000 units."

(*2*) A statement as required by and contained in paragraph (c)(5) of §86.090–14 signed by the authorized representative of the manufacturer.

(*3*) A statement that the vehicles or engines described in the manufacturers application for certification are not equipped with auxiliary emission control devices which can be classified as a defeat device as defined in §86.084–2.

(*4*) A statement of compliance with section 206(a)(3) of the Clean Air Act.

(*5*) A statement that, based on the manufacturer's engineering evaluation and/or emission testing, the light-duty vehicles comply with emission standards at high altitude unless exempt under paragraph (h) of §86.090–8.

(*6*) A statement that, based on the manufacturers engineering evaluation and/or emission testing, the light-duty trucks sold for principle use at designated high-altitude locations comply with the high-altitude emission requirements and that all other light-duty trucks are at least capable of being modified to meet high altitude standards unless exempt under paragraph (g)(2) of §86.090–9.

(iii) If the manufacturer meets requirements of this subpart, the Administrator will issue a certificate of conformity for the vehicles described in the application for certification.

(iv) The certificate will be issued for such a period not to exceed one model year as the Administrator may determine and upon such terms as he may deem necessary to assure that any vehicle or engine covered by the certificate will meet the requirements of the Act and of this subpart.

(v)(A) If, after a review of the statements and descriptions submitted by the manufacturer, the Administrator determines that the manufacturer has not met the applicable requirements, the Administrator shall notify the manufacturer in writing, setting forth the basis for his determination. The manufacturer may request a hearing on the Administrator's determination.

(B) If the manufacturer does not request a hearing or present the required information the Administrator will deny certification.

(12) Sections 86.079–31 and 86.079–32 are not applicable

(13) Under §86.079–33, small-volume manufacturers are covered by the following:

(i) Small-volume manufacturers may make production changes (running changes) without receiving the Administrator's prior approval. The manufacturer shall assure (by conducting emission tests as it deems necessary) that the affected vehicles (engines) remain in compliance with the requirements of this part.

(ii) The manufacturer shall notify the Administrator within seven days after implementing any production related change (running change) that would affect vehicle emissions. This notification shall include any changes to the information required under paragraph (c)(11)(ii) of this section. The manufacturer shall also amend as necessary its records required under paragraph (c)(4) of this section to conform with the production design change.

(14) Section 86.082–34 is not applicable.

(15) Sections 86.090–35, 86.079–36, 86.082–37, 86.087–38, and 86.084–39 are applicable.

[54 FR 14466, Apr. 11, 1989]

§86.090–21 Application for certification.

(a) A separate application for a certificate of conformity shall be made for each set of standards (or family emission limits, as appropriate) and each class of new motor vehicles or new motor vehicle engines. Such application shall be made to the Administrator by the manufacturer and shall be updated and corrected by amendment.

(b) The application shall be in writing, signed by an authorized representative of the manufacturer, and shall include the following:

(1)(i) Identification and description of the vehicles (or engines) covered by the application and a description of their engine (vehicles only), emission control system and fuel system components. This shall include a detailed description of each auxiliary emission control device (AECD) to be installed in or on any certification test vehicle (or certification test engine).

(ii)(A) The manufacturer shall provide to the Administrator in the application for certification:

(*1*) A list of those parameters which are physically capable of being adjusted (including those adjustable parameters for which access is difficult) and that, if adjusted to settings other than the manufacturer's recommended setting, may affect emissions;

(*2*) A specification of the manufacturer's intended physically adjustable range of each such parameter, and the production tolerances of the limits or stops used to establish the physically adjustable range;

(*3*) A description of the limits or stops used to establish the manufacturer's intended physically adjustable range of each adjustable parameter, or any other means used to inhibit adjustment;

(*4*) The nominal or recommended setting, and the associated production tolerances, for each such parameter.

(B) The manufacturer may provide, in the application for certification, information relating to why certain parameters are not expected to be adjusted in actual use and to why the physical limits or stops used to establish the physically adjustable range of each parameter, or any other means