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(i) Small volume engine families. The Assigned Deterioration Factor Durability Program is available to light-duty vehicles and light-duty trucks certified under the small volume engine family provisions of §86.094–24(e)(2).

(2) Determination of deterioration factors. No service accumulation method or vehicle/component selection method is required. Deterioration factors are proposed by the manufacturer or assigned by the Administrator based on the provisions of §86.094–14(c)(7)(i)(C).

(3) In-use verification. The Assigned Deterioration Factor Durability Program includes no requirement for manufacturer testing of in-use vehicles subsequent to certification.

(4) Data reporting requirements. Data reporting requirements for the Assigned Deterioration Factor Durability Program are contained in §86.094–14(c)(4), (c)(6), and (c)(11)(ii).


§ 86.094–14 Small-volume manufacturers certification procedures.

(a)(1) 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.

(2) To satisfy the durability data requirements of the small-volume manufacturers certification procedures, manufacturers of vehicles (or engines) as described in paragraph (b) of this section may use assigned deterioration factors that the Administrator determines by methods described in paragraph (c)(7)(i)(C) of this section. However, if no deterioration factor data (either the manufacturer’s or industry-wide deterioration factor data) are available from previously completed durability data vehicles or engines used for certification, manufacturers of vehicles (or engines) as described in paragraph (b) of this section or with new technology not previously certified may use assigned deterioration factors that the Administrator determines by alternative methods, based on good engineering judgement. The factors that the Administrator determines by alternative methods will be published in an advisory letter or advisory circular.

(b)(1) The optional small-volume manufacturers certification procedures apply to light-duty vehicles, light-duty trucks, heavy-duty vehicles, and heavy-duty engines produced by manufacturers with U.S. sales, including all vehicles and engines imported under the provisions of §§85.1505 and 85.1509 of this chapter (for the model year in which certification is sought) of fewer than 10,000 units (Light-Duty Vehicles, Light-Duty Trucks, Heavy-Duty Vehicles and Heavy-Duty Engines combined).

(2) For the purpose of determining the applicability of paragraph (b)(1) of this section, the sales the Administrator shall use shall be the aggregate of the projected or actual sales of those vehicles and/or engines in any of these groupings:

(i) Vehicles and/or engines produced by two or more firms, one of which is 10 percent or greater part owned by another;

(ii) Vehicles and/or engines produced by any two or more firms if a third party has equity ownership of 10 percent or more in each of the firms;

(iii) Vehicles and/or engines produced by two or more firms having a common corporate officer(s) who is (are) responsible for the overall direction of the companies;

(iv) Vehicles and/or engines imported or distributed by all firms where the vehicles and/or engines are manufactured by the same entity and the importer or distributor is an authorized agent of the entity.

(3) If the aggregated sales, as determined in paragraph (b)(2) of this section are less than 301 units, the manufacturers in the aggregated relationship may certify under the provisions in this section that apply to manufacturers with sales of less than 301 units.

(4) If the aggregated sales, as determined in paragraph (b)(2) of this section are greater than 300 but fewer than 10,000 units, the manufacturers in
the aggregated relationship may certify under the provisions in this section that apply to manufacturers with sales from and including 301 through 9,999 motor vehicles and motor vehicles engines per year.

(5) If the aggregated sales, as determined in paragraph (b)(2) of this section are equal to or greater than 10,000 units, then the manufacturers involved in the aggregated relationship will be allowed to certify a number of units under the small-volume engine family certification procedures in accordance with the criteria identified in paragraphs (b)(5) (i) through (iii) of this section.

(i) If a manufacturer purchases less than 50 percent of another manufacturer, each manufacturer retains its right to certify 9,999 units using the small-volume engine family certification procedures.

(ii) If a manufacturer purchases 50 percent or more of another manufacturer, the manufacturer with the over 50 percent interest must share, with the manufacturer it purchased, its 9,999 units under the small-volume engine family certification procedures.

(iii) In a joint venture arrangement (50/50 ownership) between two manufacturers, each manufacturer retains its eligibility for 9,999 units under the small-volume engine family certification procedures, but the joint venture must draw its maximum 9,999 units from the units allocated to its parent manufacturers.

(c) Small-volume manufacturers shall demonstrate compliance with the applicable sections of this subpart. The appropriate model year of the applicable sections detailed in paragraphs (c)(1) through (15) of this section shall be determined in accordance with §86.084–4.

(1) Sections 86.094–1, 86.094–2, 86.094–3, 86.084–4, 86.090–5, 86.094–7, 86.094–8, 86.094–9, and 86.094–11 are applicable.

(2) Section 86.080–12 is not applicable.

(3) Sections 86.094–13, 86.094–14, 86.084–15, and 86.085–20 are applicable.

(4) Small-volume manufacturers shall include in their records all of the information that EPA requires in §86.094–21. 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 86.094–22 is applicable except as noted in paragraph (c)(5)(i) of this section.

(i) Small-volume light-duty vehicle and light-duty truck manufacturers may satisfy the requirements of §86.094–22(e) 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 §86.094–21).

(ii) [Reserved]

(6) Section 86.094–23 is applicable.

(7) Section 86.094–24 is applicable except as noted in paragraphs (c)(7)(i) through (ii) of this section.

(i) Small-volume manufacturers may satisfy the requirements of §86.094–24 (b) and (c) in accordance with paragraphs (c)(7)(i)(A) through (C) of this section.

(A) Emission data. Selecting one emission data test vehicle (engine) per engine family by the worst-case emissions criteria in accordance with paragraph (c)(7)(i)(A) (1), (2), or (3) of this section.

(1) Light-duty vehicles and light-duty trucks. The manufacturer shall select the vehicle with the heaviest equivalent test weight (including options) within the engine family. Then within that vehicle the manufacturer shall select, in the order listed, the highest road load power, largest displacement, the transmission with the highest numerical final gear ratio (including overdrive), the highest numerical axle ratio offered in the engine family, and the maximum fuel flow calibration.

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

(B) Testing light-duty vehicles or light-duty truck emission data vehicles at any service accumulation distance of at least 2,000 miles (3,219 kilometers) or, catalyst equipped heavy-duty emission data engines at any service accumulation time of at least 62 hours, or non-catalyst equipped heavy-duty engine emission data engines at any service accumulation time determined by the manufacturer to result in stabilized emissions. The emission performance of the emission data vehicle or engine must be stabilized prior to emission testing.

(C) Durability data. Satisfying the durability data requirements by complying with the applicable procedures described in paragraphs (c)(7)(i)(C)(1) through (4) of this section.

(i) Manufacturers with aggregated sales of less than 301 motor vehicles and motor vehicle engines per year may use assigned deterioration factors that the Administrator determines based on its good engineering judgment. However, the manufacturer may not use deterioration factors less than either the average or 70th percentile of all of that manufacturer’s deterioration factor data, whichever is less. These minimum deterioration factors shall be calculated according to procedures in paragraph (c)(7)(i)(C)(2)(ii), of this section. If the manufacturer does not have at least two data points to calculate these manufacturer specific average deterioration factors, then the deterioration factors shall be no less than the EPA supplied industry-wide deterioration factors. However, the manufacturer may, at its option, accumulate miles on a durability data vehicle and complete emission tests for the purpose of establishing its own deterioration factors.

(ii) The manufacturer’s minimum deterioration factors shall be calculated using the deterioration factors from all engine families, within the same vehicle/engine-fuel usage category (e.g., gasoline-fueled light-duty vehicle, etc.) previously certified to the same emission standards. The manufacturer shall use only deterioration factors from engine families previously certified by the manufacturer and the deterioration factors shall not be included in the calculation more than once. The deterioration factors for each pollutant shall be calculated separately. The manufacturer may, at its option, limit the deterioration factors used in the calculation of the manufacturer’s minimum deterioration factors to those from all similar systems to the system being certified if sufficient data (i.e., from at least two certified systems) exists. All data eligible to be grouped as similar system data shall be used in calculating similar system deterioration factors. Any deterioration factors used in calculating similar system deterioration factors shall not be included in calculating the manufacturer’s minimum deterioration factors used to certify any of the manufacturer’s remaining vehicle systems.

(3) Manufacturers with aggregated sales from 301 through 9,999 motor vehicles and motor vehicle engines per year certifying light-duty vehicle exhaust emissions from vehicles equipped with proven emission control systems shall use assigned deterioration factors that the manufacturer determines based on its good engineering judgment. However, the manufacturer may not use deterioration factors less than either the average or 70th percentile of all of that manufacturer’s deterioration factor data, whichever is less. These minimum deterioration factors shall be calculated according to procedures in paragraph (c)(7)(i)(C)(2)(ii), of this section. If the manufacturer does not have at least two data points to calculate these manufacturer specific average deterioration factors, then the deterioration factors shall be no less than the EPA supplied industry-wide deterioration factors. However, the manufacturer may, at its option, accumulate miles on a durability data vehicle and complete emission tests for the purpose of establishing its own deterioration factors.

(ii) The manufacturer’s minimum deterioration factors shall be calculated using the deterioration factors from all engine families, within the same vehicle/engine-fuel usage category (e.g., gasoline-fueled light-duty vehicle, etc.) previously certified to the same emission standards. The manufacturer shall use only deterioration factors from engine families previously certified by the manufacturer and the deterioration factors shall not be included in the calculation more than once. The deterioration factors for each pollutant shall be calculated separately. The manufacturer may, at its option, limit the deterioration factors used in the calculation of the manufacturer’s minimum deterioration factors to those from all similar systems to the system being certified if sufficient data (i.e., from at least two certified systems) exists. All data eligible to be grouped as similar system data shall be used in calculating similar system deterioration factors. Any deterioration factors used in calculating similar system deterioration factors shall not be included in calculating the manufacturer’s minimum deterioration factors used to certify any of the manufacturer’s remaining vehicle systems.
emissions from vehicles equipped with unproven emission control systems shall use deterioration factors that the manufacturer determines from official certification durability data generated by vehicles from engine families representing a minimum of 25 percent of the manufacturer’s sales equipped with unproven emission control systems. The sales projections are to be based on total sales projected for each engine/system combination. The durability programs applicable to such manufacturers for this purpose shall be the Standard AMA, the Production AMA and the Alternative Service Accumulation Durability Programs of §86.094–13. The durability data vehicle (engine) mileage accumulation and emission tests are to be conducted in accordance with §86.094–13. The manufacturer must develop deterioration factors by generating durability data in accordance with §86.094–13 on a minimum of 25 percent of the manufacturer’s projected sales (by engine/system combination) that is equipped with unproven emission control systems. The manufacturer must complete the 25 percent durability requirement before the remainder of the manufacturer’s sales equipped with unproven emission control systems. The manufacturer must complete the 25 percent durability requirement before the remainder of the manufacturer’s sales equipped with unproven emission control systems.

(ii) Section 86.094–24(d) and (e) are not applicable.

(b) Section 86.094–25 is applicable to maintenance performed on durability data light-duty vehicles, light-duty trucks, heavy-duty vehicles, and heavy-duty engines when the manufacturer completes durability data vehicles or engines; §86.087–38 is applicable to the recommended maintenance the manufacturer includes in the maintenance instructions furnished the purchasers of new motor vehicles and new motor vehicle engines under §86.087–38.

9(i) Section 86.094–26 is applicable if the manufacturer completes durability data vehicles or engines.

(ii) Section 86.090–27 is applicable.

(10) Sections 86.094–28 and 86.091–29 are applicable.

(11)(i) Section 86.094–30 is applicable, except for §86.094–30 (a)(2) and (b). In the place of §86.094–30 (a)(2) and (b), 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 elements contained in paragraphs (c)(11)(ii) through (E) of this section.

(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 items listed in paragraphs (c)(11)(ii)(B) through (J) of this section as applicable.

(I) [Reserved]

(2) Vehicle carlines 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, type, volume, composition, surface area, and total precious metal loading.

(11) Method of air aspiration.

(12) Thermal reactor characteristics.

(13) Suppliers’ and/or manufacturers’ name and model number of any emission related items of the above, if purchased from a supplier 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 §86.065–22(e), and schematics of hoses and other devices connecting these components.
(C) [Reserved]
(D)(1)–(6) [Reserved]
(7) A statement affirming that the manufacturer will provide a list of emission and emission-related service parts, including part number designations and sources of parts, to the vehicle purchaser for all emission and emission-related parts which might affect vehicle emission performance throughout the useful life of the vehicle. Secondly, it must state that qualified service facilities and emission-related repair parts will be conveniently available to serve its vehicles. In addition, if service facilities are not available at the point of sale or distribution, the manufacturer must indicate that the vehicle purchaser will be provided information identifying the closest authorized service facility to the point of sale, if in the United States, or the closest authorized service facility to the point of distribution to the ultimate purchaser if the vehicle was purchased outside of the United States by the ultimate purchaser. Such information should also be made available to the Administrator upon request.

(E) Manufacturers utilizing deterioration factors determined by the manufacturer based on its good engineering judgment (reference paragraph (c)(7)(i)(C)(2) of this section) shall provide a description of the method(s) used by the manufacturer to determine the deterioration factors.

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

(b) The Administrator may test or require testing on any vehicle at a designated location, using driving cycles and conditions which may reasonably be expected to be encountered in normal operation and use, for the purposes of investigating a potential defeat device.

(c) For cold temperature CO emission control, the Administrator will use a guideline to determine the appropriateness of the CO emission control at ambient temperatures between 25 °F (−4 °C)