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decimal places contained in the applicable standard, expressed to one additional significant figure;

(iii) Divide the full useful life emissions (average emissions, if applicable) for each regulated pollutant by the stabilized emissions (average emissions, if applicable) and round to two significant figures. The resulting number shall be the df, unless it is less than 1.0, in which case the df shall be 1.0.

(iv) At the manufacturer's option additional emission test points can be scheduled between the stabilized emission test point and the full useful life test period. If intermediate tests are scheduled, the test points must be evenly spaced over the full useful life period (plus or minus 2 hours) and one such test point shall be at one-half of full useful life (plus or minus 2 hours). For each pollutant $HC + NO_X$ (NMHC + NO_X) and CO, a line must be fitted to the data points treating the initial test as occurring at hour zero, and using the method of least-squares. The deterioration factor is the calculated emissions durability period divided by the calculated emissions at zero hours.

(3) EPA may reject a df if it has evidence that the df is not appropriate for that family within 30 days of receipt from the manufacturer. The manufacturer must retain actual emission test data to support its choice of df and furnish that data to the Administrator upon request. Manufacturers may request approval by the Administrator of alternate procedures for determining deterioration. Any submitted df not rejected by EPA within 30 days shall be deemed to have been approved.

(4) Calculated deterioration factors may cover families and model years in addition to the one upon which they were generated if the manufacturer submits a justification acceptable to the Administrator in advance of certification that the affected engine families can be reasonably expected to have similar emission deterioration characteristics.

(5) Engine families that undergo running changes need not generate a new df if the manufacturer submits a justification acceptable to the Administrator concurrent with the running change that the affected engine families can be reasonably expected to have

similar emission deterioration characteristics.

[60 FR 34598, July 3, 1995, as amended at 64 FR 15237, Mar. 30, 1999; 65 FR 24306, Apr. 25, 2000]

§ 90.105 Useful life periods for Phase 2 engines.

(a) Manufacturers shall declare the applicable useful life category for each engine family at the time of certification as described in this section. Such category shall be the category which most closely approximates the expected useful lives of the equipment into which the engines are anticipated to be installed as determined by the engine manufacturer. Manufacturers shall retain data appropriate to support their choice of useful life category for each engine family. Such data shall be furnished to the Administrator upon request.

(1) For nonhandheld engines: Manufacturers shall select a useful life category from Table 1 of this section at the time of certification. Engines with gross power output greater than 19 kW that have an engine displacement less than or equal to one liter that optionally certify under this part as allowed in §90.1(a), must certify to a useful life period of 1,000 hours.

(2) Table 1 follows:

TABLE 1: USEFUL LIFE CATEGORIES FOR NONHANDHELD ENGINES [HOURS]

125	250	500
250	500	1000
50	125	300
125	250	500
	50	250 500 50 125

(3) For handheld engines: Manufacturers shall select a useful life category from Table 2 of this paragraph (a) at the time of certification.

(4) Table 2 follows:

TABLE 2: USEFUL LIFE CATEGORIES FOR HANDHELD ENGINES (HOURS)

Class III	50	125	300
Class IV	50	125	300
Class V	50	125	300

(5) Data to support a manufacturer's choice of useful life category, for a given engine family, may include but are not limited to:

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- (i) Surveys of the life spans of the equipment in which the subject engines are installed:
- (ii) Engineering evaluations of field aged engines to ascertain when engine performance deteriorates to the point where usefulness and/or reliability is impacted to a degree sufficient to necessitate overhaul or replacement;
- (iii) Warranty statements and warranty periods;
- (iv) Marketing materials regarding engine life;
- (v) Failure reports from engine customers; and
- (vi) Engineering evaluations of the durability, in hours, of specific engine technologies, engine materials or engine designs.
 - (b) [Reserved]

[64 FR 15238, Mar. 30, 1999, as amended at 65 FR 24307, Apr. 25, 2000]

§ 90.106 Certificate of conformity.

- (a)(1) Except as provided in §90.2(b), every manufacturer of new engines produced during or after model year 1997 must obtain a certificate of conformity covering such engines; however, engines manufactured during an annual production period beginning prior to September 1, 1996 are not required to be certified.
- (2) Except as required in paragraph (b)(3) of this section, Class II engines manufactured during an annual production period beginning prior to September 1, 2000 are not required to meet Phase 2 requirements.
- (b)(1) The annual production period begins either when an engine family is first produced or on January 2 of the calendar year preceding the year for which the model year is designated, whichever date is later. The annual production period ends either when the last engine is produced or on December 31 of the calendar year for which the model year is named, whichever date is sooner.
- (2) Notwithstanding paragraph (b)(1) of this section, annual production periods beginning prior to September 1, 1996 may not exceed 12 months in length.
- (3) Manufacturers who commence an annual production period for a Class II engine family between January 1, 2000 and September 1, 2000 must meet Phase

- 2 requirements for that family only if that production period will exceed 12 months in length.
- (c) Except as provided in paragraph (d) of this section, a certificate of conformity is deemed to cover the engines named in such certificate and produced during the annual production period, as defined in paragraph (b) of this section.
- (d) Except as provided in paragraph (e) of this section, the certificate of conformity must be obtained from the Administrator prior to selling, offering for sale, introducing into commerce, or importing into the United States the new engine. Engines produced prior to the effective date of a certificate of conformity may also be covered by the certificate, once it is effective, if the following conditions are met:
- (1) The engines conform in all respects to the engines described in the application for the certificate of conformity.
- (2) The engines are not sold, offered for sale, introduced into commerce, or delivered for introduction into commerce prior to the effective date of the certificate of conformity.
- (3) EPA is notified prior to the beginning of production when such production will start, and EPA is provided a full opportunity to inspect and/or test the engines during and after their production. EPA must have the opportunity to conduct SEA production line testing as if the vehicles had been produced after the effective date of the certificate.
- (e) Engines that are certified by EPA prior to January 2, 1996 for model year 1997 may be delivered for introduction into commerce prior to January 2, 1996 once a certificate of conformity has been issued
- (f) Engines imported by an original equipment manufacturer after December 31 of the calendar year for which the model year is named are still covered by the certificate of conformity as the production of the engine was completed before December 31 of that year.

[60 FR 34598, July 3, 1995, as amended at 64 FR 15238, Mar. 30, 1999]

§ 90.107 Application for certification.

(a) For each engine family, the engine manufacturer must submit to the