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using the FELs set by the manufacturer is equal to or lower than the manufacturer's average emission level using the manufacturer's actual production, but substituting values of 72 g/kW-hr for Class III and IV engines, and 87 g/kW-hr for Class V engines. Manufacturer will choose to participate in this optional transition year program each year and for each engine family. Manufacturers will notify EPA of their program choice at the time they request certification. Once a family has been designated as generating credits under either the optional program or the program described in §§ 90.204 through 90.211, the manufacturer may not change that program selection for any of the engines of that engine family produced under that model year certification approval.

[65 FR 24309, Apr. 25, 2000]

§ 90.213 Averaging under the optional program.

(a) Negative credits from engine families with FELs above the applicable emission standard must be offset by positive credits from engine families having FELs below the applicable emission standard, as allowed under the provisions of this subpart. Averaging of credits in this manner is used to determine compliance under § 90.216(b).

(b) Cross-class averaging of credits is allowed across all classes of nonroad spark-ignition handheld engines at or below 19 kW participating in the optional transition year program.

(c) Credits used in averaging for a given model year may be obtained from credits generated in the same model year by another engine family, credits banked in previous model years, or credits of the same or previous model year obtained through trading. The restrictions of this paragraph (c) notwithstanding, credits from a given model year may be used to address credit needs of previous model year engines as allowed under § 90.216(c).

(d) The use of credits generated under the early banking provisions of § 90.214(b) is subject to regulations under this subpart.

[65 FR 24309, Apr. 25, 2000]

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§ 90.214 Banking under the optional program.

(a)(1)-(3) [Reserved]

(4) For the 2002 through 2004 model years, a manufacturer of a Class III or Class IV engine family may bank credits for use in future model year averaging and trading from those Class III or Class IV engine families with an FEL at or below the applicable standard.

(5) For the 2004 through 2006 model years, a manufacturer of a Class V engine family may bank credits for use in future model year averaging and trading from those Class V engine families with an FEL at or below the applicable standard.

(6) Negative credits may be banked only according to the requirements under § 90.216(c).

(b)(1) [Reserved]

(2) [Reserved]

(3) Beginning with the 2000 model year and prior to the applicable date listed in paragraph (a) of this section for Class III engines, a manufacturer may bank early credits for all Class III engines with HC+NO_x FELs below the applicable standard. All early credits for Class III engines shall be calculated against a HC+NO_x level of 238 g/kW-hr.

(4) Beginning with the 2000 model year and prior to the applicable date listed in paragraph (a) of this section for Class IV engines, a manufacturer may bank early credits for all Class IV engines with HC+NO_x FELs below the applicable standard. All early credits for Class IV engines shall be calculated against a HC+NO_x level of 196 g/kW-hr.

(5) Beginning with the 2000 model year and prior to the applicable date listed in paragraph (a) of this section for Class V engines, a manufacturer may bank early credits for all Class V engines with HC+NO_x FELs below the applicable standard. All early credits for Class V engines shall be calculated against a HC+NO_x level of 143 g/kW-hr.

(6) Engines certified under the early banking provisions of this paragraph are subject to all of the requirements of this part applicable to Phase 2 engines.

(c) A manufacturer may bank actual credits only after the end of the model year and after EPA has reviewed the manufacturer's end-of-year reports.

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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 in the end-of-year report and final report.

(d) Credits declared for banking from the previous model year that have not been reviewed by EPA may be used in averaging or trading transactions. However, such credits may be revoked at a later time following EPA review of the end-of-year report or any subsequent audit actions.

[65 FR 24309, Apr. 25, 2000]

§ 90.215 Trading under the optional program.

(a) An engine manufacturer may exchange emission credits with other engine manufacturers in trading.

(b) Credits for trading can be obtained from credits banked in previous model years or credits generated during the model year of the trading transaction.

(c) Traded credits can be used for averaging, banking, or further trading transactions.

(d) Traded credits are subject to the limitations on use for past model years, as set forth in § 90.213(c).

(e) In the event of a negative credit balance resulting from a transaction, both the buyer and the seller are liable, except in cases involving fraud. Certificates of all engine families participating in a negative trade may be voided ab initio pursuant to § 90.123.

[65 FR 24310, Apr. 25, 2000]

§ 90.216 Credit calculation and manufacturer compliance with emission standards under the optional program.

(a)(1) For each engine family, HC+NO_x [NMHC+NO_x] certification emission credits (positive or negative) are to be calculated according to the following equation and rounded to the nearest gram. Consistent units are to

be used throughout the following equation:

$$\text{Credits} = \text{Production} \times (\text{Standard} - \text{FEL}) \times \text{Power} \times \text{Useful life} \times \text{Load Factor} \times \text{Adjustment Factor}$$

Where:

Production = eligible production as defined in this part. Annual production projections are used to project credit availability for initial certification. Eligible production volume is used in determining actual credits for end-of-year compliance determination.

Standard = the current and applicable Small SI engine HC+NO_x (NMHC+NO_x) emission standard in grams per kilowatt hour as determined in § 90.103 or, for early credits, the applicable emission level as specified in § 90.214(b).

FEL = the family emission limit for the engine family in grams per kilowatt hour.

Power = the maximum modal power of the certification test engine, in kilowatts, as calculated from the applicable federal test procedure as described in this part.

Useful Life = the useful life in hours corresponding to the useful life category for which the engine family was certified.

Load Factor = 85 percent (i.e., 0.85) for Test Cycle C. For approved alternate test procedures, the load factor must be calculated according to the formula in paragraph (a)(2) of this section:

Adjustment Factor = 1.0, except for purposes of calculating credits for banking under the optional transition year program, in which case the adjustment factor is listed in Table 1, Table 2, or Table 3 of paragraph (a)(3) of this section, whichever is applicable, based on the model year of the engine and its certified FEL.

(2) Use the following formula to calculate the load factor in paragraph (a)(1) of this section:

$$\sum_{i=1}^n (\% \text{MTT mode}_i) \times (\% \text{MTS mode}_i) \times (\text{WF mode}_i)$$