

Environmental Protection Agency

§ 89.209

shall be used for all engines regardless of the level of the NO_x FEL.

(b) *Requirements for calculating NMHC + NO_x Credits from Tier 2 and later engines rated at or above 37 kW and Tier 1 and later engines rated under 37 kW and PM credits from all engines.* (1) For each participating engine family, NO_x + NMHC emission credits and PM emission credits (positive or negative) are to be calculated according to one of the following equations and rounded, in accordance with ASTM E29-93a, to the nearest one-hundredth of a megagram (Mg). This procedure has been incorporated by reference (see §89.6). Consistent units are to be used throughout the equation.

(i) For determining credit availability from all engine families generating credits:

$$\text{Emission credits} = (\text{Std-FEL}) \times (\text{Volume}) \times (\text{AvgPR}) \times (\text{UL}) \times (10^{-6})$$

(ii) For determining credit usage for all engine families requiring credits to offset emissions in excess of the standard:

$$\text{Emission credits} = (\text{Std-FEL}) \times (\text{Volume}) \times (\text{AvgPR}) \times (\text{UL}) \times (10^{-6})$$

Where:

Std = the current and applicable nonroad engine emission standard, in grams per kilowatt-hour, except for PM calculations where it is the applicable nonroad engine Tier 2 PM emission standard, and except for engines rated under 19 kW where it is the applicable nonroad engine Tier 2 emission standard, in grams per kilowatt-hour. (Engines rated under 19 kW participating in the averaging and banking program provisions of §89.203(c)(3)(ii) shall use the Tier 1 standard for credit calculations.)

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

Volume = the number of nonroad engines eligible to participate in the averaging, banking, and trading program within the given engine family during the model year. Engines sold to equipment or vehicle manufacturers under the provisions of §89.102(g) shall not be included in this number. Quarterly production projections are used for initial certification. Actual applicable production/sales volume is used for end-of-year compliance determination.

AvgPR = the average power rating of all of the configurations within an engine family, calculated on a sales-weighted basis, in kilowatts.

UL = the useful life for the given engine family, in hours.

[63 FR 57008, Oct. 23, 1998]

§ 89.208 Labeling.

For all nonroad engines included in the averaging, banking, and trading programs, the family emission limits to which the engine is certified must be included on the label required in §89.110.

[63 FR 57009, Oct. 23, 1998]

§ 89.209 Certification.

(a) In the application for certification a manufacturer must:

(1) Declare its intent to include specific engine families in the averaging, banking, and trading programs.

(2) Submit a statement that the engines for which certification is requested will not, to the best of the manufacturer's belief, cause the manufacturer to have a negative credit balance when all credits are calculated for all the manufacturer's engine families participating in the averaging, banking, and trading programs, except as allowed under §89.203(c)(3)(ii).

(3) Declare the applicable FELs for each engine family participating in averaging, banking, and trading.

(i) The FELs must be to the same number of significant digits as the emission standard for the applicable pollutant.

(ii) In no case may the FEL exceed the upper limits prescribed in §89.112(d).

(4) Indicate the projected number of credits generated/needed for this family; the projected applicable production/sales volume, by quarter; and the values required to calculate credits as given in §89.207.

(5) Submit calculations in accordance with §89.207 of projected emission credits (positive or negative) based on quarterly production projections for each participating family.

(6)(i) If the engine family is projected to have negative emission credits, state specifically the source (manufacturer/engine family or reserved) of the credits necessary to offset the credit deficit according to quarterly projected production, or, if the engine family is to be included in the provisions of §89.203(c)(3)(ii), state that the engine