

*Averaging* for nonroad engines means the exchange of emission credits among engine families within a given manufacturer's product line.

*Banking* means the retention of nonroad engine emission credits by the manufacturer generating the emission credits for use in future model year averaging or trading as permitted by these regulations.

*Emission credits* represent the amount of emission reduction or exceedance, by a nonroad engine family, below or above the emission standard, respectively. Emission reductions below the standard are considered as "positive credits," while emission exceedances above the standard are considered as "negative credits." In addition, "projected credits" refer to emission credits based on the projected applicable production/sales volume of the engine family. "Reserved credits" are emission credits generated within a model year waiting to be reported to EPA at the end of the model year. "Actual credits" refer to emission credits based on actual applicable production/sales volume as contained in the end-of-year reports submitted to EPA. Some or all of these credits may be revoked if EPA review of the end-of-year reports or any subsequent audit action(s) uncovers problems or errors.

*Trading* means the exchange of nonroad engine emission credits between manufacturers.

[59 FR 31335, June 17, 1994. Redesignated at 63 FR 56995, Oct. 23, 1998]

#### § 89.203 General provisions.

(a) The averaging, banking, and trading programs for NO<sub>x</sub>, NMHC+NO<sub>x</sub>, and PM emissions from eligible nonroad engines are described in this subpart. Participation in these programs is voluntary.

(b) *Requirements for Tier 1 engines rated at or above 37 kW.* (1) A nonroad engine family is eligible to participate in the averaging, banking, and trading program for NO<sub>x</sub> emissions and the banking and trading program for PM emissions if it is subject to regulation under subpart B of this part with certain exceptions specified in paragraph (b)(2) of this section. No averaging, banking, and trading program is available for meeting the Tier 1 HC, CO, or

smoke emission standards specified in subpart B of this part. No averaging program is available for meeting the Tier 1 PM emission standards specified in subpart B of this part.

(2) Nonroad engines may not participate in the averaging, banking, and trading programs if they are exported or are sold as Blue Sky Series engines as described in § 89.112(f). Nonroad engines certified on a special test procedure under § 89.114(a), may not participate in the averaging, banking and trading programs unless the manufacturer has requested that the engines be included in the averaging, banking, and trading programs at the time the request for the special test procedure is made and has been granted approval by the Administrator for inclusion in the averaging, banking, and trading programs.

(3) A manufacturer may certify one or more nonroad engine families at NO<sub>x</sub> family emission limits (FELs) above or below the Tier 1 NO<sub>x</sub> emission standard, provided the summation of the manufacturer's projected balance of all NO<sub>x</sub> credit transactions in a given model year is greater than or equal to zero, as determined under § 89.207(a). A manufacturer may certify one or more nonroad engine families at PM FELs below the Tier 2 PM emission standard that will be applicable to those engine families.

(i) FELs for NO<sub>x</sub> may not exceed the Tier 1 upper limit specified in § 89.112(d).

(ii) An engine family certified to an FEL is subject to all provisions specified in this part, except that the applicable FEL replaces the emission standard for the family participating in the averaging, banking, and trading program.

(iii) A manufacturer of an engine family with a NO<sub>x</sub> FEL exceeding the Tier 1 NO<sub>x</sub> emission standard must obtain NO<sub>x</sub> emission credits sufficient to address the associated credit shortfall via averaging, banking, or trading.

(iv) An engine family with a NO<sub>x</sub> FEL below the applicable Tier 1 standard may generate emission credits for averaging, banking, trading, or a combination thereof. An engine family

with a PM FEL below the Tier 2 standard that will be applicable to that engine family may generate emission credits for banking, trading, or a combination thereof. Emission credits may not be used to offset an engine family's emissions that exceed its applicable FEL. Credits may not be used to remedy nonconformity determined by a Selective Enforcement Audit (SEA) or by recall (in-use) testing. However, in the case of an SEA failure, credits may be used to allow subsequent production of engines for the family in question if the manufacturer elects to recertify to a higher FEL.

(4) NO<sub>x</sub> credits generated in a given model year may be used to address credit shortfalls with other engines during that model year or in any subsequent model year except as noted under paragraph (b)(5)(ii) of this section. PM credits may be used to address credit shortfalls with Tier 2 and later engines greater than or equal to 37 kW and Tier 1 and later engines less than 37 kW and greater than or equal to 19 kW. Credits generated in one model year may not be used for prior model years.

(5) The following provisions apply to the use of Tier 1 NO<sub>x</sub> credits for showing compliance with the Tier 2 or Tier 3 NMHC+NO<sub>x</sub> standards.

(i) A manufacturer may use NO<sub>x</sub> credits from engines subject to the Tier 1 NO<sub>x</sub> standard to address NMHC+NO<sub>x</sub> credit shortfalls with engines in the same averaging set subject to Tier 1 NMHC+NO<sub>x</sub> or Tier 2 NMHC+NO<sub>x</sub> emission standards.

(ii) A manufacturer may not use NO<sub>x</sub> credits from engines subject to the Tier 1 standards to address NMHC+NO<sub>x</sub> credit shortfalls with engines subject to the Tier 3 NMHC+NO<sub>x</sub> emission standards.

(c) *Requirements for Tier 2 and later engines rated at or above 37 kW and Tier 1 and later engines rated under 37 kW.* (1) A nonroad engine family is eligible to participate in the averaging, banking, and trading programs for NMHC+NO<sub>x</sub> emissions and PM emissions if it is subject to regulation under subpart B of this part with certain exceptions specified in paragraph (c)(2) of this section. No averaging, banking, and trading program is available for meeting

the CO or smoke emission standards specified in subpart B of this part.

(2) Nonroad engines may not participate in the averaging, banking, and trading programs if they are exported or are sold as Blue Sky Series engines as described in § 89.112(f). Nonroad engines certified on a special test procedure under § 89.114(a), may not participate in the averaging, banking and trading programs unless the manufacturer has requested that the engines be included in the averaging, banking, and trading programs at the time the request for the special test procedure is made and has been granted approval by the Administrator for inclusion in the averaging, banking, and trading programs.

(3)(i) A manufacturer may certify one or more nonroad engine families at FELs above or below the applicable NMHC+NO<sub>x</sub> emission standard and PM emission standard, provided the summation of the manufacturer's projected balance of all NMHC+NO<sub>x</sub> credit transactions and the summation of the manufacturer's projected balance of all PM credit transactions in a given model year in a given averaging set is greater than or equal to zero, as determined under § 89.207(b).

(A) FELs for NMHC+NO<sub>x</sub> and FELs for PM may not exceed the upper limits specified in § 89.112(d).

(B) An engine family certified to an FEL is subject to all provisions specified in this part, except that the applicable FEL replaces the emission standard for the family participating in the averaging, banking, and trading program.

(C) A manufacturer of an engine family with an FEL exceeding the applicable emission standard must obtain emission credits sufficient to address the associated credit shortfall via averaging, banking, or trading, within the restrictions described in § 89.204(c) and § 89.206(b)(4).

(D) An engine family with an FEL below the applicable standard may generate emission credits for averaging, banking, trading, or a combination thereof. Emission credits may not be used to offset an engine family's emissions that exceed its applicable FEL. Credits may not be used to remedy

nonconformity determined by a Selective Enforcement Audit (SEA) or by recall (in-use) testing. However, in the case of an SEA failure, credits may be used to allow subsequent production of engines for the family in question if the manufacturer elects to recertify to a higher FEL.

(ii)(A) In lieu of generating credits under paragraph (c)(3)(i) of this section, a manufacturer may certify one or more nonroad engine families rated under 37 kW at family emission limits (FELs) above or below the applicable NMHC+NO<sub>x</sub> emission standard and PM emission standard. The summation of the manufacturer's projected balance of all NMHC+NO<sub>x</sub> credit transactions and the summation of the manufacturer's projected balance of all PM credit transactions in a given model year, as determined under §89.207(b), are each allowed to be less than zero. Separate calculations shall be required for the following two categories of engines: engines rated under 19 kW and engines rated at or above 19 kW and under 37 kW.

(B) For each calendar year a negative credit balance exists as of December 31, a penalty equal to ten percent of the negative credit balance as of December 31 of the calendar year shall be added to the negative credit balance. The resulting negative credit balance shall be carried into the next calendar year.

(C) For engines rated under 19 kW, a manufacturer will be allowed to carry over a negative credit balance until December 31, 2003. For engines rated at or above 19 kW and under 37 kW, a manufacturer will be allowed to carry over a negative credit balance until December 31, 2002. As of these dates, the summation of the manufacturer's projected balance of all NMHC+NO<sub>x</sub> credit transactions and the summation of the manufacturer's projected balance of all PM credit transactions must each be greater than or equal to zero.

(D) FELs for NMHC+NO<sub>x</sub> and FELs for PM may not exceed the upper limit specified in §89.112(d).

(E) An engine family certified to an FEL is subject to all provisions specified in this part, except that the applicable NMHC+NO<sub>x</sub> FEL or PM FEL replaces the NMHC+NO<sub>x</sub> emission stand-

ard or PM emission standard for the family participating in the averaging and banking program.

(F) A manufacturer of an engine family with an FEL exceeding the applicable emission standard must obtain emission credits sufficient to address the associated credit shortfall via averaging or banking. The exchange of emission credits generated under this program with other nonroad engine manufacturers in trading is not allowed.

(G) An engine family with an FEL below the applicable standard may generate emission credits for averaging, banking, or a combination thereof. Emission credits may not be used to offset an engine family's emissions that exceed its applicable FEL. Credits may not be used to remedy nonconformity determined by a Selective Enforcement Audit (SEA) or by recall (in-use) testing. However, in the case of an SEA failure, credits may be used to allow subsequent production of engines for the family in question if the manufacturer elects to recertify to a higher FEL.

(4)(i) Except as noted in paragraphs (c)(4)(ii), (c)(4)(iii), and (c)(4)(iv) of this section, credits generated in a given model year may be used during that model year or used in any subsequent model year. Except as allowed under paragraph (c)(3)(ii) of this section, credits generated in one model year may not be used for prior model years.

(ii) Credits generated from engines rated under 19 kW prior to the implementation date of the applicable Tier 2 standards, shall expire on December 31, 2007.

(iii) Credits generated from engines rated under 19 kW under the provisions of paragraph (c)(3)(ii) shall expire on December 31, 2003.

(iv) Credits generated from engines rated at or above 19 kW and under 37 kW under the provisions of paragraph (c)(3)(ii) of this section shall expire on December 31, 2002.

(5) Except as provided in paragraph (b)(3) of this section, engine families may not generate credits for one pollutant while also using credits for another pollutant in the same model year.

(6) Model year 2008 and 2009 engines rated under 8 kW that are allowed to certify under this part because they meet the criteria in 40 CFR 1039.101(c) may not generate emission credits.

(d) Manufacturers must demonstrate compliance under the averaging, banking, and trading programs for a particular model year within 270 days of the end of the model year. Except as allowed under paragraph (c)(3)(ii) of this section, manufacturers that have certified engine families to FELs above the applicable emission standards and do not have sufficient emission credits to offset the difference between the emission standards and the FEL for such engine families will be in violation of the conditions of the certificate of conformity for such engine families. The certificates of conformity may be voided ab initio under § 89.126(c) for those engine families.

[63 FR 57006, Oct. 23, 1998, as amended at 69 FR 39213, June 29, 2004]

#### § 89.204 Averaging.

(a) *Requirements for Tier 1 engines rated at or above 37 kW.* A manufacturer may use averaging to offset an emission exceedance of a nonroad engine family caused by a NO<sub>x</sub> FEL above the applicable emission standard. NO<sub>x</sub> credits used in averaging may be obtained from credits generated by another engine family in the same model year, credits banked in a previous model year, or credits obtained through trading.

(b) *Requirements for Tier 2 and later engines rated at or above 37 kW and Tier 1 and later engines rated under 37 kW.* A manufacturer may use averaging to offset an emission exceedance of a nonroad engine family caused by an NMHC+;NO<sub>x</sub> FEL or a PM FEL above the applicable emission standard. Credits used in averaging may be obtained from credits generated by another engine family in the same model year, credits banked in previous model years that have not expired, or credits obtained through trading. The use of credits shall be within the restrictions described in paragraph (c) of this section, § 89.206(b)(4) and § 89.203(b)(5)(ii).

(c) *Averaging sets for emission credits.* The averaging and trading of NO<sub>x</sub> emission credits, NMHC + NO<sub>x</sub> emis-

sion credits, and PM emissions credits will only be allowed between engine families in the same averaging set. The averaging sets for the averaging and trading of NO<sub>x</sub> emission credits, NMHC + NO<sub>x</sub> emission credits, and PM emission credits for nonroad engines are defined as follows:

(1) Eligible engines rated at or above 19 kW, other than marine diesel engines, constitute an averaging set.

(2) Eligible engines rated under 19 kW, other than marine diesel engines, constitute an averaging set.

(3) Marine diesel engines rated at or above 19 kW constitute an averaging set. Emission credits generated from marine diesel engines rated at or above 19 kW may be used to address credit shortfalls for eligible engines rated at or above 19 kW other than marine diesel engines.

(4) Marine diesel engines rated under 19 kW constitute an averaging set. Emission credits generated from marine diesel engines rated under 19 kW may be used to address credit shortfalls for eligible engines rated under 19 kW other than marine diesel engines.

[63 FR 57007, Oct. 23, 1998]

#### § 89.205 Banking.

(a) *Requirements for Tier 1 engines rated at or above 37 kW.* (1) A manufacturer of a nonroad engine family with a NO<sub>x</sub> FEL below the applicable standard for a given model year may bank credits in that model year for use in averaging and trading in any subsequent model year.

(2) A manufacturer of a nonroad engine family may bank NO<sub>x</sub> credits up to one calendar year prior to the effective date of mandatory certification. Such engines must meet the requirements of subparts A, B, D, E, F, G, H, I, J, and K of this part.

(3)(i) A manufacturer of a nonroad engine family may bank PM credits from Tier 1 engines under the provisions specified in § 89.207(b) for use in averaging and trading in the Tier 2 or later timeframe.

(ii) Such engine families are subject to all provisions specified in subparts A, B, D, E, F, G, H, I, J, and K of this part, except that the applicable PM