

§ 86.1710-99

40 CFR Ch. I (7-1-07 Edition)

an air-fuel ratio significantly greater than stoichiometry, during non-deceleration conditions at speeds above 40 mph. "Lean-on-cruise" air-fuel calibration strategies shall not be employed during vehicle operation in normal driving conditions, including A/C usage, unless at least one of the following conditions is met:

(A) Such strategies are substantially employed during the FTP or SFTP;

(B) Such strategies are demonstrated not to significantly reduce vehicle NMHC+NO_x emission control effectiveness over the operating conditions in which they are employed;

(C) Such strategies are demonstrated to be necessary to protect the vehicle occupants, engine, or emission control hardware.

(ii) If the manufacturer proposes to use a "lean-on-cruise" calibration strategy, the manufacturer shall specify the circumstances under which such a calibration would be used, and the reason or reasons for the proposed use of such a calibration.

(iii) The provisions of this paragraph (e)(4) shall not apply to vehicles powered by "lean-burn" engines or diesel-cycle engines. A "lean-burn" engine is defined as an Otto-cycle engine designed to run at an air-fuel ratio significantly greater than stoichiometry during the large majority of its operation.

(5) *Applicability to alternative fuel vehicles.* These SFTP standards do not apply to vehicles certified on fuels other than gasoline and diesel fuel, but the standards do apply to the gasoline

and diesel fuel operation of flexible-fuel vehicles and dual-fuel vehicles.

(6) *Single-roll electric dynamometer requirement.* For all vehicles certified to the SFTP standards, a single-roll electric dynamometer or a dynamometer which produces equivalent results, as set forth in § 86.108, must be used for all types of emission testing to determine compliance with the associated emission standards.

[62 FR 31242, June 6, 1997. Redesignated and amended at 63 FR 979, Jan. 7, 1998; 70 FR 40442, July 13, 2005]

§ 86.1710-99 Fleet average non-methane organic gas exhaust emission standards for light-duty vehicles and light light-duty trucks.

(a) *Fleet average NMOG standards and compliance.* (1) Each manufacturer shall certify light-duty vehicles or light light-duty trucks to meet the exhaust emission standards in this subpart for TLEVs, LEVs, ULEVs, or ZEVs, or the exhaust emission standards of § 86.096-8(a)(1)(i) and subsequent model year provisions or § 86.097-9(a)(1)(i) and subsequent model year provisions, such that, using the applicable intermediate useful life standards, the manufacturer's fleet average NMOG values for light-duty vehicles and light light-duty trucks sold in the applicable region according to the specifications of Tables R99-15 and R99-16 are less than or equal to the standards in Tables R99-15 and R99-16 in the rows designated with the applicable vehicle type, loaded vehicle weight, and model year, as follows:

TABLE R99-15—FLEET AVERAGE NON-METHANE ORGANIC GAS STANDARDS (G/MI) FOR LIGHT-DUTY VEHICLES AND LIGHT LIGHT-DUTY TRUCKS SOLD IN THE NORTHEAST TRADING REGION

Vehicle type	Loaded vehicle weight	Model year	Fleet average NMOG
Light light-duty vehicles	All	1999	0.148
		2000	0.095
and			
Light light-duty trucks	0-3750.		
Light light-duty trucks	3751-5750	1999	0.190
		2000	0.124

TABLE R99-16—FLEET AVERAGE NON-METHANE ORGANIC GAS STANDARDS (G/MI) FOR LIGHT-DUTY VEHICLES AND LIGHT LIGHT-DUTY TRUCKS SOLD IN THE ALL STATES TRADING REGION

Vehicle type	Loaded vehicle weight	Model year	Fleet average NMOG
Light-duty vehicles	All	2001 and later	0.075

TABLE R99-16—FLEET AVERAGE NON-METHANE ORGANIC GAS STANDARDS (G/MI) FOR LIGHT-DUTY VEHICLES AND LIGHT LIGHT-DUTY TRUCKS SOLD IN THE ALL STATES TRADING REGION—Continued

Vehicle type	Loaded vehicle weight	Model year	Fleet average NMOG
and Light light-duty trucks	0-3750.		
Light light-duty trucks	3751-5750	2001 and later	0.100

(2)(i) For the purpose of calculating the HEV contribution factor for the fleet average NMOG value, a manufacturer may use adjusted values to estimate the contributions of hybrid electric vehicles (or "HEVs") based on the range of the HEV without the use of the engine. See §86.1702 for definitions of HEV types for purposes of calculating adjusted NMOG emissions.

(ii) For the purpose of calculating fleet average NMOG values, vehicles that have no tailpipe emissions but use fuel-fired heaters and that are not certified as ZEVs shall be treated as Type A HEV ULEVs.

(3)(i) Each manufacturer's applicable fleet average NMOG value for all light light-duty trucks from 0-3750 lbs. loaded vehicle weight and light-duty vehicles sold in the applicable region according to Tables R99-15 and R99-16 shall be calculated in units of g/mi NMOG according to the following equation, where the term "Sold" means sold in the applicable region according to Tables R99-15 and R99-16, and the term "Vehicles" means light light-duty trucks from 0-3750 lbs loaded vehicle weight and light-duty vehicles:
$$\frac{((\text{No. of Vehicles Certified to the Federal Tier 1 Exhaust Emission Standards and Sold}) \times (0.25)) + ((\text{No. of TLEVs Sold excluding HEVs}) \times (0.125)) + ((\text{No. of LEVs Sold excluding HEVs}) \times (0.75)) + ((\text{No. of ULEVs Sold excluding HEVs}) \times (0.040)) + (\text{HEV contribution factor})}{(\text{Total No. of Vehicles Sold, including ZEVs and HEVs})}$$

(A) For model years 1997 through 2000, "Vehicles" in the preceding equation shall include California-certified vehicles, including vehicles certified to California Tier 1 standards.

(B) For model years 2001 and later, "vehicles" in the preceding equation shall not include California-certified vehicles unless they are also certified under the National LEV program.

(ii)(A) "HEV contribution factor" shall mean the NMOG emission contribution of HEVs to the fleet average NMOG value. The HEV contribution factor shall be calculated in units of g/mi as follows, where the term "Sold" means sold in the applicable region according to tables R99-15 and R99-16.

(B) HEV contribution factor =
$$(((\text{No. of Type A HEV TLEVs Sold}) \times (0.100)) + ((\text{No. of Type B HEV TLEVs Sold}) \times (0.113)) + ((\text{No. of Type C HEV TLEVs Sold}) \times (0.125))) + (((\text{No. of Type A HEV LEVs Sold}) \times (0.057)) + ((\text{No. of Type B HEV LEVs Sold}) \times (0.066)) + ((\text{No. of Type C HEV LEVs Sold}) \times (0.075))) + (((\text{No. of Type A HEV ULEVs Sold}) \times (0.020)) + ((\text{No. of Type B HEV ULEVs Sold}) \times (0.030)) + ((\text{No. of Type C HEV ULEVs Sold}) \times (0.040)))$$

(iii)(A) For any model year in which a manufacturer certifies its entire fleet of light-duty vehicles and light light-duty trucks from 0-3750 lbs LVW to intermediate useful life NMOG emission standards specified in §§86.1708 and 86.1709 that are less than or equal to the applicable fleet average NMOG standard specified in Tables R99-15 and R99-16, the manufacturer may elect not to calculate a fleet average NMOG value for such vehicles for that model year.

(B) The fleet average NMOG value for a manufacturer electing under paragraph (a)(3)(iii)(A) of this section not to calculate a fleet average NMOG value shall be deemed to be the applicable fleet average NMOG standard specified in Table R99-15 or R99-16 for the applicable model year.

(C) A manufacturer making the election under paragraph (a)(3)(iii)(A) of this section may not generate credits for that model year for light light-duty trucks from 0-3750 lbs LVW and light-duty vehicles.

(4)(i) Each manufacturer's applicable fleet average NMOG value for all light

light-duty trucks from 3751-5750 lbs loaded vehicle weight sold in the applicable region according to Tables R99-15 and R99-16 shall be calculated in units of g/mi NMOG according to the following equation, where the term "Sold" means sold in the applicable region according to Tables R97-15 and R97-16, and the term "Vehicles" means light light-duty trucks from 3751-5750 lbs loaded vehicle weight:
$$\frac{((\text{No. of Vehicles Certified to the Federal Tier 1 Exhaust Emission Standards and Sold}) \times (0.32)) + ((\text{No. of TLEVs Sold excluding HEVs}) \times (0.160)) + ((\text{No. of LEVs Sold excluding HEVs}) \times (0.100)) + ((\text{No. of ULEVs Sold excluding HEVs}) \times (0.050)) + (\text{HEV Contribution factor})}{(\text{Total No. of Vehicles Sold, including ZEVs and HEVs})}$$

(A) For model years 1997 through 2000, "Vehicles" in the preceding equation shall include California-certified vehicles, including vehicles certified to California Tier 1 standards.

(B) For model years 2001 and later, "Vehicles" in the preceding equation shall not include California-certified vehicles unless they are also certified under the National LEV program.

(ii)(A) "HEV contribution factor" shall mean the NMOG emission contribution of HEVs to the fleet average NMOG. The HEV contribution factor shall be calculated in units of g/mi as follows, where the term "Sold" means sold in the applicable region according to tables R99-15 and R99-16.

(B) HEV contribution factor =
$$\frac{((\text{No. of Type A HEV TLEVs Sold}) \times (0.130)) + ((\text{No. of Type B HEV TLEVs Sold}) \times (0.145)) + ((\text{No. of Type C HEV TLEVs Sold}) \times (0.160)) + (((\text{No. of Type A HEV LEVs Sold}) \times (0.075)) + ((\text{No. of Type B HEV LEVs Sold}) \times (0.087)) + ((\text{No. of Type C HEV LEVs Sold}) \times (0.100))) + (((\text{No. of Type A HEV ULEVs Sold}) \times (0.025)) + ((\text{No. of Type B HEV ULEVs Sold}) \times (0.037)) + ((\text{No. of Type C HEV ULEVs Sold}) \times (0.050)))}$$

(iii)(A) For any model year in which a manufacturer certifies its entire fleet of light light-duty trucks from 3751-5750 lbs LVW to intermediate useful life NMOG emission standards specified in §86.1709 that are less than or equal to the applicable fleet average NMOG requirements specified in Tables R99-15 and R99-16, the manufacturer may

elect not to calculate a fleet average NMOG value for such vehicles for that model year.

(B) The fleet average NMOG value for a manufacturer electing under paragraph (a)(4)(iii)(A) of this section not to calculate a fleet average NMOG value shall be deemed to be the applicable fleet average NMOG standard specified in Table R99-15 or R99-16 for the applicable model year.

(5)(i) The calculation of the fleet average NMOG value pursuant to paragraphs (a)(3) and (a)(4) of this section shall exclude ATVs, as defined in §86.1702, purchased in the NTR by state governments. In determining the quantity of vehicles to be excluded from the NMOG calculations, a manufacturer shall only be required to exclude vehicles that are reported by the purchasing government in a timely letter, containing adequate information, directed to the representative of the manufacturer listed in the manufacturer's application for certification. Such letter shall be considered timely only if it is received no later than February 1 of the calendar year following the model year of the purchased vehicles.

(ii) Adequate information includes the number of vehicles purchased, vehicle makes and models, and the associated engine families. A copy of the letter should be sent to: Director, Vehicle Programs and Compliance Division, U.S. Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, Michigan, 48105.

(6) For any model year prior to model year 2001 for which a manufacturer meets the definition of "low volume manufacturer" in §86.1702, it shall be exempt from the requirements in paragraph (a)(1) of this section. The requirements in paragraph (a)(1) of this section applicable to the 2001 and later model years shall apply to low volume manufacturers.

(b) *Fleet average NMOG credit and debit calculations.* (1) For each averaging set, as defined in §86.1702, manufacturers that achieve fleet average NMOG values lower than the fleet average NMOG standard for the corresponding model year may generate credits.

(2) For each averaging set, manufacturers that obtain applicable fleet average NMOG values exceeding the fleet average NMOG standard for the corresponding model year shall generate debits.

(3) For each averaging set, credits and debits are to be calculated according to the following equation and rounded, in accordance with the Rounding-Off Method specified in ASTM E29-90, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications, which is incorporated by reference (see § 86.1), to the nearest whole number (intermediate calculations will not be rounded): Number of Credits/Debits = $((\text{Applicable Fleet Average NMOG Standard}) - (\text{Manufacturer's Applicable Fleet Average NMOG Value})) \times (\text{Applicable Production})$.

(4) For each applicable region and model year, a manufacturer's available credits or level of debits shall be the sum of credits or debits derived from the respective class A and class B averaging sets for that region and model year. Paragraph (d)(2)(ii)(C) of this section contains a special provision for manufacturers that end model year 2000 with a debit balance in the NTR.

(c) *Intermediate in-use emission standards.* (1) Only credits generated in the NTR may be used to offset NMOG debits incurred in the NTR. Manufacturers may use in the ASTR credits generated in the NTR.

(2) Only after credits are earned may they be used, traded, or carried over to another model year. Before trading or carrying over credits to the next model year, a manufacturer must apply available credits to offset any of its debits from the same region, where the deadline to offset such debits has not yet passed.

(3) Credits earned in any given model year shall retain full value through the subsequent model year.

(4) Unused credits that are available at the end of the second, third, and fourth model years after the model year in which the credits were generated shall be discounted to 50%, 25%, and 0% of the original value of the credits, respectively. The discounting of credits also applies to credits transferred to other parties.

(5) Credits may not be used to remedy any nonconformities determined by a Selective Enforcement Audit, recall testing, or testing performed with respect to Title 13, Chapter 2, Articles 1 and 2 of the California Code of Regulations.

(6) Prior to model year 2001, low volume manufacturers may earn credits in the NTR to transfer to other motor vehicle manufacturers for use in the NTR or the ASTR, or to bank for their own use in the ASTR. Such credits will be calculated as set forth in paragraphs (a) and (b) of this section, except that the applicable fleet average NMOG standard shall be 0.25 g/mi NMOG for the averaging set for light light-duty trucks from 0-3750 lbs LVW and light-duty vehicles or 0.32 g/mi NMOG for the averaging set for light light-duty trucks from 3751-5750 lbs LVW. Credits shall be discounted in accordance with the provisions in paragraph (c)(4) of this section.

(7) Prior to model year 2001, manufacturers may earn credits in the ASTR states that are not in the NTR and may bank those credits for use in the ASTR. Such credits will be calculated as set forth in paragraphs (a) and (b) of this section, except that the applicable fleet average NMOG standard shall be 0.25 g/mi NMOG for the averaging set for light light-duty trucks from 0-3750 lbs LVW and light-duty vehicles or 0.32 g/mi NMOG for the averaging set for light light-duty trucks from 3751-5750 lbs LVW, and "sold" shall mean sold in the ASTR states that are not in the NTR.

(i) Emission credits earned in the ASTR states outside the NTR prior to model year 2001 shall be treated as generated in model year 2001.

(ii) In the 2001 model year, a one-time discount rate of 10 percent shall be applied to all credits earned under the provisions of this paragraph (c)(7).

(iii) These credits shall be discounted in accordance with the provisions in paragraph (c)(4) of this section.

(8) Manufacturers may earn and bank credits in the NTR for model years 1997 and 1998. In states without a Section 177 Program effective in model year 1997 or 1998, such credits will be calculated as set forth in paragraphs (a) and (b) of this section, except that the

applicable fleet average NMOG standard shall be 0.25 g/mi NMOG for the averaging set for light light-duty trucks from 0-3750 lbs LVW and light-duty vehicles or 0.32 g/mi NMOG for the averaging set for light light-duty trucks from 3751-5750 lbs LVW. In states that opt into National LEV and have a Section 177 Program effective in model year 1997 or 1998, such credits will equal the unused credits earned in those states.

(i) Emissions credits earned in the NTR prior to the 1999 model year shall be treated as generated in the 1999 model year.

(ii) In the 1999 model year, a one-time discount rate of 10 percent shall be applied to all credits earned under the provisions of this paragraph (c)(8).

(iii) These credits shall be discounted in accordance with the provisions in paragraph (c)(4) of this section.

(9) There are no property rights associated with credits generated under the provisions of this section. Credits are a limited authorization to emit the designated amount of emissions. Nothing in the regulations or any other provision of law should be construed to limit EPA's authority to terminate or limit this authorization through a rule-making. If EPA were to terminate or limit the authorization to emit associated with emissions credits generated under the provisions of this section, this paragraph (c)(9) would have no effect on manufacturers' ability to opt out of the National LEV program pursuant to § 86.1707.

(d) *Fleet average NMOG debits.* (1) Manufacturers shall offset any debits for a given model year by the fleet average NMOG reporting deadline for the model year following the model year in which the debits were generated. Manufacturers may offset debits by generating credits or acquiring credits generated by another manufacturer. Only credits generated in the NTR may be used to offset NMOG debits generated in the NTR.

(2) The provisions of this paragraph (d)(2) apply only when a manufacturer has a debit balance in the NTR at the end of model year 2000. Manufacturers shall offset any debits incurred in the NTR for model year 2000 by the fleet

average NMOG reporting deadline for model year 2001.

(i) A manufacturer may offset debits generated in the NTR in model year 2000 either by generating credits in the NTR in model year 2001 or by applying NTR credits acquired under the provisions of this section.

(ii) If a manufacturer has a debit balance in the NTR at the end of model year 2000, then such manufacturer shall be required to calculate fleet average NMOG values for both the NTR and the ASTR for model year 2001.

(A) The NTR values shall be calculated according to paragraphs (a) and (b) of this section, with the fleet average NMOG standards equal to the standards for model year 2001 in the ASTR.

(B) If such a manufacturer has a credit balance in the NTR for model year 2001, before trading or carrying over credits to the next model year, the manufacturer must apply available NTR credits to offset its debits in the NTR.

(C) Notwithstanding paragraph (b)(4) of this section, for the ASTR and model year 2001, such a manufacturer's available credits or level of debits shall be the sum of credits or debits derived from the respective class A and class B averaging sets for the ASTR and model year 2001, minus any credits used pursuant to paragraph (d)(2)(ii)(B).

(iii) To transfer a credit as an NTR credit earned in model year 2001, a manufacturer must have credits generated in the NTR based on separate fleet average NMOG values calculated for the NTR in model year 2001. In addition, the number of model year 2001 NTR credits available for a manufacturer to transfer cannot exceed the manufacturer's available number of model year 2001 ASTR credits. Any transferred model year 2001 NTR credits shall be deducted from the manufacturer's available model year 2001 ASTR credits.

(3)(i) Failure to meet the requirements of paragraphs (a) through (d) of this section within the required timeframe for offsetting debits will be considered to be a failure to satisfy the conditions upon which the certificate(s) was issued and the individual noncomplying vehicles not covered by

the certificate shall be determined according to this section.

(ii) If debits are not offset within the specified time period, the number of vehicles not meeting the fleet average NMOG standards and not covered by the certificate shall be calculated by dividing the total amount of debits for the model year by the fleet average NMOG standard applicable for the model year and averaging set in which the debits were first incurred. If both averaging sets are in debit, any applicable credits will first be allocated between the averaging sets according to the manufacturer's expressed preferences. Then, the number of vehicles not covered by the certificate shall be calculated using the revised debit values.

(iii) EPA will determine the vehicles for which the condition on the certificate was not satisfied by designating vehicles in those engine families with the highest certification NMOG emission values first and continuing until a number of vehicles equal to the calculated number of noncomplying vehicles as determined above is reached. If this calculation determines that only a portion of vehicles in an engine family contribute to the debit situation, then EPA will designate actual vehicles in that engine family as not covered by the certificate, starting with the last vehicle produced and counting backwards.

(4) If a manufacturer opts out of the National LEV program pursuant to § 86.1707, the manufacturer continues to be responsible for offsetting any debits outstanding on the effective date of the opt-out within the required time period. Any failure to offset the debits will be considered to be a violation of paragraph (d)(1) of this section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant to paragraph (d)(2) of this section.

(5) For purposes of calculating tolling of the statute of limitations, a violation of the requirements of paragraph (d)(1) of this section, a failure to satisfy the conditions upon which a certificate(s) was issued and hence a sale of vehicles not covered by the certificate, all occur upon the expiration of

the deadline for offsetting debits specified in paragraph (d)(1) of this section.

(e) *NMOG credit transfers.* (1) EPA may reject NMOG credit transfers if the involved manufacturers fail to submit the credit transfer notification in the annual report.

(2) A manufacturer may not sell credits that are not available for sale pursuant to the provisions in paragraphs (c)(2) or (d)(2) of this section.

(3) Except in instances of fraud on the part of the credit recipient, where a manufacturer sells credits that were not available for sale, the credits shall be treated as valid, and the manufacturer that sold the credits shall be liable for any resulting shortfall.

(4)(i) If a manufacturer transfers a credit that it has not generated pursuant to paragraph (b) of this section or acquired from another party, the manufacturer will be considered to have generated a debit in the model year that the manufacturer transferred the credit. The manufacturer must offset such debits by the deadline for the annual report for that same model year.

(ii) Failure to offset the debits within the required time period will be considered a failure to satisfy the conditions upon which the certificate(s) was issued and will be addressed pursuant to paragraph (d)(3) of this section.

[62 FR 31242, June 6, 1997. Redesignated and amended at 63 FR 983, Jan. 7, 1998; 70 FR 40442, July 13, 2005]

EFFECTIVE DATE NOTE: At 62 FR 31242, June 6, 1997, subpart R was added, effective Aug. 5, 1997. Section 86.1710-99(a) contains information collection and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

§ 86.1711-99 Limitations on sale of Tier 1 vehicles and TLEVs.

(a) In the 2001 and subsequent model years, manufacturers may sell Tier 1 vehicles and TLEVs in the NTR only if vehicles with the same engine families are certified and offered for sale in California in the same model year, except as provided under § 86.1707(d)(4).

(b) [Reserved]

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