§ 86.1864–10 How to comply with the fleet average cold temperature NMHC standards.

(a) Applicability. Cold temperature NMHC exhaust emission standards apply to the following vehicles, subject to the phase-in requirements in § 86.1811–10(g)(3) and (4):

(1) 2010 and later model year LDV/LLDTs.
(2) 2012 and later model year HLDT/MDPVs.
(3) [Reserved]
(4) Vehicles imported by ICIs as defined in 40 CFR 85.1502.

(b) Useful life requirements. Full useful life requirements for cold temperature NMHC standards are defined in § 86.1805–04(g). There is not an intermediate useful life standard for cold temperature NMHC standards.

(c) Altitude. Altitude requirements for cold temperature NMHC standards are provided in § 86.1810–09(f).

(d) Small volume manufacturer certification procedures. Certification procedures for small volume manufacturers are provided in § 86.1838–01.

(e) Cold temperature NMHC standards. Fleet average cold temperature NMHC standards are provided in § 86.1811–10(g)(2).

(f) Phase-in. Phase-in of the cold temperature NMHC standards are provided in § 86.1811–10(g)(3) and (4).

(g) Phase-in flexibilities for small volume manufacturers. Phase-in flexibilities for small volume manufacturer compliance with the cold temperature NMHC standards are provided in § 86.1811–04(k)(5).

(h) Hardship provisions for small volume manufacturers. Hardship provisions for small volume manufacturers related to the cold temperature NMHC standards are provided in § 86.1811–04(q)(1).

(i) In-use standards for applicable phase-in models. In-use cold temperature NMHC standards for applicable phase-in models are provided in § 86.1811–10(u).

(j) Durability procedures and method of determining deterioration factors (DFs). The durability data vehicle selection procedures of § 86.1822–01 and the durability demonstration procedures of § 86.1823–06 apply for cold temperature NMHC standards. For determining compliance with full useful life cold temperature NMHC emission standards, the 68–86 °F, 120,000 mile full useful life NMOC DF may be used.

(k) Vehicle test procedure. (1) The test procedure for demonstrating compliance with cold temperature NMHC standards is contained in subpart C of this part. With prior EPA approval, alternative testing procedures may be used, as specified in § 86.106–96(a), provided cold temperature NMHC emissions test results are equivalent or superior.

(2) Testing of all LDVs, LDTs and MDPVs to determine compliance with cold temperature NMHC exhaust emission standards set forth in this section must be on a loaded vehicle weight (LVW) basis, as defined in § 86.1803–01.

(3) Testing for the purpose of providing certification data is required only at low altitude conditions and only for vehicles that can operate on gasoline, except as requested in §§ 86.1810–09(f) and 86.1844–01(d)(11). If hardware and software emission control strategies used during low altitude condition testing are not used similarly across all altitudes for in-use operation, the manufacturer must include a statement in the application for certification, in accordance with §§ 86.1844–01(d)(11) and 86.1810–09(f), stating what the different strategies are and why they are used. If hardware and software emission control strategies used during testing with gasoline are not used similarly with all fuels that can be used in multi-fuel vehicles, the manufacturer will include a statement in the application for certification, in accordance with §§ 86.1844–01(d)(11) and 86.1810–09(f), stating what the different strategies are and why they are used. For example, unless a manufacturer states otherwise, air pumps used to control emissions on dedicated gasoline vehicles or multi-fuel vehicles during low altitude conditions must also be used to control emissions at high altitude conditions, and software used to...
control emissions or closed loop operation must also operate similarly at low and high altitude conditions and similarly when multi-fueled vehicles are operated on gasoline and alternate fuels. These examples are for illustrative purposes only; similar strategies would apply to other currently used emission control technologies and/or emerging or future technologies.

(l) Emission data vehicle (EDV) selection. Provisions for selecting the appropriate EDV for the cold temperature NMHC standards are provided in §§ 86.1828–10(g) and 86.1829–01(b)(3).

(m) Calculating the fleet average cold temperature NMHC standard. Manufacturers must compute separate sales-weighted fleet average cold temperature NMHC emissions at the end of the model year for LDV/LLDTs and HLD/T/MDPVs, using actual sales, and certifying test groups to FELs, as defined in § 86.1803–01. The FEL becomes the standard for each test group, and every test group can have a different FEL. The certification resolution for the FEL will be 0.1 grams/mile. LDVs and LLDTs must be grouped together when calculating the fleet average, and HLD/Ts and MDPVs must also be grouped together to determine the fleet average. Manufacturers must compute the sales-weighted cold temperature NMHC fleet averages using the following equation, rounded to the nearest 0.1 grams/mile:

\[
\text{Fleet average cold temperature NMHC exhaust emissions (grams/mile)} = \frac{\sum (N \times \text{FEL})}{\text{Total number of vehicles sold of the applicable weight category}} \\
\text{where:}
\begin{align*}
N &= \text{The number of LDVs and LLDTs, or HLD/Ts and MDPVs, sold within the applicable FEL, based on vehicles counted to the point of first sale.} \\
\text{FEL} &= \text{Family Emission Limit (grams/mile).}
\end{align*}
\]

(n) Certification compliance and enforcement requirements for cold temperature NMHC standards. (1) Compliance and enforcement requirements are provided in §86.1864–10 and §86.1848–10(c)(8).

(2) The certificate issued for each test group requires all vehicles within that test group to meet the emission standard or FEL to which the vehicles were certified.

(3) Each manufacturer must comply with the applicable cold temperature NMHC fleet average standard on a sales-weighted average basis, at the end of each model year, using the procedure described in paragraph (m) of this section.

(4) During a phase-in year, the manufacturer must comply with the applicable cold temperature NMHC fleet average standard for the required phase-in percentage for that year as specified in §86.1811–10(g)(3) or (4).

(5) Manufacturers must compute separate cold temperature NMHC fleet averages for LDV/LLDTs and HLD/T/MDPVs. The sales-weighted cold temperature NMHC fleet averages must be compared with the applicable fleet average standard.

(6) Each manufacturer must comply on an annual basis with the fleet average standards as follows:

(i) Manufacturers must report in their annual reports to the Agency that they met the relevant corporate average standard by showing that their sales-weighted average cold temperature NMHC emissions of LDV/LLDTs and HLD/T/MDPVs, as applicable, are at or below the applicable fleet average standard;

(ii) If the sales-weighted average is above the applicable fleet average standard, manufacturers must obtain and apply sufficient NMHC credits as permitted under paragraph (o)(8) of this section. A manufacturer must show via the use of credits that they have offset any exceedence of the corporate average standard. Manufacturers must also include their credit balances or deficits.

(iii) If a manufacturer fails to meet the corporate average cold temperature NMHC standard for two consecutive years, the vehicles causing the corporate average exceedence will be considered not covered by the certificate of conformity (see paragraph (o)(8) of this section). A manufacturer will be subject to penalties on an individual-vehicle basis for sale of vehicles not covered by a certificate.

(iv) EPA will review each manufacturer’s sales to designate the vehicles that caused the exceedence of the corporate average standard. EPA will designate as nonconforming those vehicles
§ 86.1864–10

in test groups with the highest certification emission values first, continuing until reaching a number of vehicles equal to the calculated number of noncomplying vehicles as determined above. In a group where only a portion of vehicles would be deemed nonconforming, EPA will determine the actual nonconforming vehicles by counting backwards from the last vehicle produced in that test group. Manufacturers will be liable for penalties for each vehicle sold that is not covered by a certificate.

(o) Requirements for the cold temperature NMHC averaging, banking and trading (ABT) program. (1) Manufacturers must average the cold temperature NMHC emissions of their vehicles and comply with the cold temperature NMHC fleet average corporate standard. Manufacturers may generate credits during and after the phase-in period. Manufacturers may generate credits prior to the phase-in periods as described in paragraph (o)(5) of this section. A manufacturer whose cold temperature NMHC fleet average emissions exceed the applicable standard must complete the calculation in paragraph (o)(4) of this section to determine the size of its NMHC credit deficit. A manufacturer whose cold temperature NMHC fleet average emissions are less than the applicable standard must complete the calculation in paragraph (o)(4) of this section to generate NMHC credits.

(2) There are no property rights associated with NMHC credits generated under this subpart. Credits are a limited authorization to emit the designated amount of emissions. Nothing in this part or any other provision of law should be construed to limit EPA’s authority to terminate or limit this authorization through a rulemaking.

(3) Each manufacturer must comply with the reporting and recordkeeping requirements of paragraph (p) of this section for NMHC credits, including early credits. The averaging, banking and trading program is enforceable through the certificate of conformity that allows the manufacturer to introduce any regulated vehicles into commerce.

(4) Credits are earned on the last day of the model year. Manufacturers must calculate, for a given model year, the number of credits or debits it has generated according to the following equation, rounded to the nearest 0.1 grams/mile:

\[
\text{NMHC Credits or Debits} = (\text{Cold Temperature NMHC Standard} - \text{Manufacturer's Sales-Weighted Fleet Average Cold Temperature NMHC Emissions}) \times (\text{Total Number of Vehicles Sold})
\]

Where:

- Cold Temperature NMHC Standard = 0.3 grams/mile for LDV/LLDTs or 0.5 grams/mile for HLDT/MDPV, per §86.1811–10(g)(2).
- Manufacturer’s Sales-Weighted Fleet Average Cold Temperature NMHC Emissions = average calculated according to paragraph (m) of this section.

Total Number of Vehicles Sold = Total 50-State sales based on the point of first sale.

(5) The following provisions apply for early banking:

(i) Manufacturers may certify LDV/LLDTs to the cold temperature NMHC exhaust standards in §86.1811–10(g)(2) for model years 2008–2009 to bank credits for use in the 2010 and later model years. Manufacturers may certify HLDT/MDPVs to the cold temperature NMHC exhaust standards in §86.1811–10(g)(2) for model years 2010–2011 to bank credits for use in the 2012 and later model years.

(ii) This process is referred to as “early banking” and the resultant credits are referred to as “early credits.” To bank early credits, a manufacturer must comply with all exhaust emission standards and requirements applicable to LDV/LLDTs and/or HLDT/MDPVs. To generate early credits, a manufacturer must separately compute the sales-weighted cold temperature NMHC average of the LDV/LLDTs and HLDT/MDPVs it certifies to the exhaust requirements and separately compute credits using the calculations in paragraph (o)(4) of this section. Early HLDT/MDPV credits may not be applied to LDV/LLDTs before the 2010 model year. Early LDV/LLDT credits may not be applied to HLDT/MDPV before the 2012 model year.

(6) NMHC credits are not subject to any discount or expiration date except as required under the deficit carryforward provisions of paragraph...
(o)(8) of this section. There is no discounting of unused credits. NMHC credits have unlimited lives, subject to the limitations of paragraph (o)(2) of this section.

(7) Credits may be used as follows:

(i) Credits generated and calculated according to the method in paragraph (o)(4) of this section may be used only to offset deficits accrued with respect to the standard in §86.1811–10(g)(2). Credits may be banked and used in a future model year in which a manufacturer's average cold temperature NMHC level exceeds the applicable standard. Credits may be exchanged between the LDT/LLDT and HLDT/MDPV fleets of a given manufacturer. Credits may also be traded to another manufacturer according to the provisions in paragraph (o)(9) of this section. Before trading or carrying over credits to the next model year, a manufacturer must apply available credits to offset any credit deficit, where the deadline to offset that credit deficit has not yet passed.

(ii) The use of credits shall not be permitted to address Selective Enforcement Auditing or in-use testing failures. The enforcement of the averaging standard occurs through the vehicle's certificate of conformity. A manufacturer's certificate of conformity is conditioned upon compliance with the averaging provisions. The certificate will be void ab initio if a manufacturer fails to meet the corporate average standard and does not obtain appropriate credits to cover its shortfalls in that model year or in the subsequent model year (see deficit carryforward provision in paragraph (o)(8) of this section). Manufacturers must track their certification levels and sales unless they produce only vehicles certified to cold temperature NMHC levels below the standard and do not plan to bank credits.

(8) The following provisions apply if debits are accrued:

(i) If a manufacturer calculates that it has negative credits (also called “debts” or a “credit deficit”) for a given model year, it may carry that deficit forward into the next model year. Such a carry-forward may only occur after the manufacturer exhausts any supply of banked credits. At the end of that next model year, the deficit must be covered with an appropriate number of credits that the manufacturer generates or purchases. Any remaining deficit is subject to an enforcement action, as described in this paragraph (o)(8). Manufacturers are not permitted to have a credit deficit for two consecutive years.

(ii) If debits are not offset within the specified time period, the number of vehicles not meeting the fleet average cold temperature NMHC standards (and therefore not covered by the certificate) must be calculated by dividing the total amount of debits for the model year by the fleet average cold temperature NMHC standard applicable for the model year in which the debits were first incurred.

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

(iv)(A) If a manufacturer ceases production of LDV/LLDTs and HLDT/MDPVs, the manufacturer continues to be responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered a violation of paragraph (o)(8)(i) of this section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant to paragraphs (o)(8)(ii) and (iii) of this section.

(B) If a manufacturer is purchased by, merges with, or otherwise combines with another manufacturer, the controlling entity is responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered a violation of paragraph (o)(8)(i) of this
section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant to paragraphs (o)(8)(i) and (iii) of this section.

(v) For purposes of calculating the statute of limitations, a violation of the requirements of paragraph (o)(6)(i) 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 (o)(8)(i) of this section.

(9) The following provisions apply to NMHC credit trading:

(i) EPA may reject NMHC credit trades if the involved manufacturers fail to submit the credit trade notification in the annual report. A manufacturer may not sell credits that are not available for sale pursuant to the provisions in paragraphs (o)(7)(i) of this section.

(ii) In the event of a negative credit balance resulting from a transaction that a manufacturer could not cover by the reporting deadline for the model year in which the trade occurred, both the buyer and seller are liable, except in cases involving fraud. EPA may void ab initio the certificates of conformity of all engine families participating in such a trade.

(iii) A manufacturer may only trade credits that it has generated pursuant to paragraph (o)(4) of this section or acquired from another party.

(p) Maintenance of records and submittal of information relevant to compliance with fleet average cold temperature NMHC standards—(i) Maintenance of records. (i) Manufacturers producing any light-duty vehicles, light-duty trucks, or medium-duty passenger vehicles subject to the provisions in this subpart must establish, maintain, and retain all the following information in adequately organized records for each model year:

(A) Model year.

(B) Applicable fleet average cold temperature NMHC standard.

(C) EPA test group.

(D) Assembly plant.

(E) Vehicle identification number.

(F) Cold temperature NMHC FEL to which the LDV, LDT, or MDPV is certified.

(G) Information on the point of first sale, including the purchaser, city, and state.

(iii) Manufacturers must retain all required records for a period of eight years from the due date for the annual report. Records may be stored in any format and on any media, as long as manufacturers can promptly send EPA organized, written records in English if we ask for them. Manufacturers must keep records readily available as EPA may review them at any time.

(iv) The Administrator may require the manufacturer to retain additional records or submit information not specifically required by this section.

(v) Pursuant to a request made by the Administrator, the manufacturer must submit to the Administrator the information that the manufacturer is required to retain.

(vi) EPA may void ab initio a certificate of conformity for vehicles certified to emission standards as set forth or otherwise referenced in this subpart for which the manufacturer fails to retain the records required in this section or to provide such information to the Administrator upon request.

(2) Reporting. (i) Each covered manufacturer must submit an annual report. The annual report must contain for each applicable cold temperature NMHC standard, the calculated fleet average cold temperature NMHC value, all values required to calculate the cold temperature NMHC emissions value, the number of credits generated
§ 86.1865–12 How to comply with the fleet average CO₂ standards.

(a) Applicability. (1) Unless otherwise exempted under the provisions of §86.1801–12(j), CO₂ fleet average exhaust emission standards apply to:

(i) 2012 and later model year passenger automobiles and light trucks.

(ii) [Reserved]

(iii) Vehicles imported by ICIs as defined in 40 CFR 85.1502.

(2) The terms “passenger automobile” and “light truck” as used in this section have the meanings as defined in §86.1818–12.

(b) Useful life requirements. Full useful life requirements for CO₂ standards are defined in §86.1818–12. There is not an intermediate useful life standard for CO₂ emissions.

(c) Altitude. Altitude requirements for CO₂ standards are provided in §86.1810–09(f).

(d) Small volume manufacturer certification procedures. Certification procedures for small volume manufacturers are provided in §86.1838–01. Small businesses meeting certain criteria may be exempted from the greenhouse gas emission standards in §86.1818–12 according to the provisions of §86.1801–12(j).

(e) CO₂ fleet average exhaust emission standards. The fleet average standards referred to in this section are the corporate fleet average CO₂ standards for passenger automobiles and light trucks set forth in §86.1818–12(c) and (e). The fleet average CO₂ standards applicable in a given model year are calculated separately for passenger automobiles and light trucks for each manufacturer and each model year according to the provisions in §86.1818–12. Each manufacturer must comply with the applicable CO₂ fleet average standard on a production-weighted average basis, for each separate averaging set, at the end of the respective annual production period.