

must meet the hydrocarbon standard in 40 CFR 86.096–11.

(b) CO, NO<sub>x</sub> and particulate matter. Vehicles/engines must meet the CO, NO<sub>x</sub>, and particulate matter emission standards that applied for the vehicle's/engine's original model year. If the engine was certified with a Family Emission Limit, as noted on the emission control information label, the modified engine may not exceed this Family Emission Limit.

(c) *Evaporative hydrocarbons.* Vehicles/engines must meet the evaporative hydrocarbon emission standards that applied for the vehicle's/engine's original model year.

#### § 85.525 Applicable standards.

To qualify for an exemption from the tampering prohibition, vehicles/engines that have been converted to operate on a different fuel must meet emission standards and related requirements as follows:

(a) The modified vehicle/engine must meet the requirements that applied for the OEM vehicle/engine, or the most stringent OEM vehicle/engine standards in any allowable grouping. Fleet average standards do not apply unless clean alternative fuel conversions are specifically listed as subject to the standards.

(1) If the vehicle/engine was certified with a Family Emission Limit for NO<sub>x</sub>, NO<sub>x</sub>+HC, or particulate matter, as noted on the vehicle/engine emission control information label, the modified vehicle/engine may not exceed this Family Emission Limit.

(2) Compliance with greenhouse gas emission standards is demonstrated as follows:

(i) Subject to the following exceptions and special provisions, compliance with light-duty vehicle greenhouse gas emission standards is demonstrated by complying with the N<sub>2</sub>O and CH<sub>4</sub> standards and provisions set forth in 40 CFR 86.1818–12(f)(1) and the in-use CO<sub>2</sub> exhaust emission standard set forth in 40 CFR 86.1818–12(d) as determined by the OEM for the sub-configuration that is identical to the fuel conversion emission data vehicle (EDV).

(A) If the OEM complied with the light-duty greenhouse gas standards

using the fleet averaging option for N<sub>2</sub>O and CH<sub>4</sub>, as allowed under 40 CFR 86.1818–12(f)(2), the calculations of the carbon-related exhaust emissions require the input of grams/mile values for N<sub>2</sub>O and CH<sub>4</sub>, and you are not required to demonstrate compliance with the standalone CH<sub>4</sub> and N<sub>2</sub>O standards.

(B) If the OEM complied with alternate standards for N<sub>2</sub>O and/or CH<sub>4</sub>, as allowed under 40 CFR 86.1818–12(f)(3), you may demonstrate compliance with the same alternate standards.

(C) If the OEM complied with the nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) standards and provisions set forth in 40 CFR 86.1818–12(f)(1) or 86.1818–12(f)(3), and the fuel conversion CO<sub>2</sub> measured value is lower than the in-use CO<sub>2</sub> exhaust emission standard, you also have the option to convert the difference between the in-use CO<sub>2</sub> exhaust emission standard and the fuel conversion CO<sub>2</sub> measured value into GHG equivalents of CH<sub>4</sub> and/or N<sub>2</sub>O, using 298 g CO<sub>2</sub> to represent 1 g N<sub>2</sub>O and 25 g CO<sub>2</sub> to represent 1 g CH<sub>4</sub>. You may then subtract the applicable converted values from the fuel conversion measured values of CH<sub>4</sub> and/or N<sub>2</sub>O to demonstrate compliance with the CH<sub>4</sub> and/or N<sub>2</sub>O standards.

(D) Optionally, compliance with greenhouse gas emission requirements may be demonstrated by comparing emissions from the vehicle prior to the fuel conversion to the emissions after the fuel conversion. This comparison must be based on FTP test results from the emission data vehicle (EDV) representing the pre-conversion test group. The sum of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O shall be calculated for pre- and post-conversion FTP test results, where CH<sub>4</sub> and N<sub>2</sub>O are weighted by their global warming potentials of 25 and 298, respectively. The post-conversion sum of these emissions must be lower than the pre-conversion conversion greenhouse gas emission results. CO<sub>2</sub> emissions are calculated as specified in 40 CFR 600.113–12. If statements of compliance are applicable and accepted in lieu of measuring N<sub>2</sub>O, as permitted by EPA regulation, the comparison of the greenhouse gas results also need not measure or include N<sub>2</sub>O in the before and after emission comparisons.

§ 85.530

40 CFR Ch. I (7-1-13 Edition)

(ii) Compliance with heavy-duty engine greenhouse gas emission standards is demonstrated by complying with the CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> standards (or FELs, as applicable) and provisions set forth in 40 CFR 1036.108 for the engine family that is represented by the fuel conversion emission data engine (EDE). If the fuel conversion CO<sub>2</sub> measured value is lower than the CO<sub>2</sub> standard (or FEL, as applicable), you have the option to convert the difference between the CO<sub>2</sub> standard (or FEL, as applicable) and the fuel conversion CO<sub>2</sub> measured value into GHG equivalents of CH<sub>4</sub> and/or N<sub>2</sub>O, using 298 g/hp-hr CO<sub>2</sub> to represent 1 g/hp-hr N<sub>2</sub>O and 25 g/hp-hr CO<sub>2</sub> to represent 1 g/hp-hr CH<sub>4</sub>. You may then subtract the applicable converted values from the fuel conversion measured values of CH<sub>4</sub> and/or N<sub>2</sub>O to demonstrate compliance with the CH<sub>4</sub> and/or N<sub>2</sub>O standards (or FEL, as applicable).

(3) Conversion systems for engines that would have qualified for chassis certification at the time of OEM certification may use those procedures, even if the OEM did not. Conversion manufacturers choosing this option must designate test groups using the appropriate criteria as described in this subpart and meet all vehicle chassis certification requirements set forth in 40 CFR part 86, subpart S.

(b) [Reserved]

[76 FR 57372, Sept. 15, 2011, as amended at 77 FR 63149, Oct. 15, 2012]

EFFECTIVE DATE NOTE: At 78 FR 36388, June 17, 2013, § 85.525 was amended by revising the introductory text to paragraph (a)(2)(i) and by adding paragraph (a)(2)(iii), effective Aug. 16, 2013. For the convenience of the user, the revised and added text is set forth as follows:

§ 85.525 Applicable standards.

\* \* \* \* \*

(a) \* \* \*

(2) \* \* \*

(i) Subject to the following exceptions and special provisions, compliance with light-duty vehicle greenhouse gas emission standards is demonstrated by complying with the N<sub>2</sub>O and CH<sub>4</sub> standards and provisions set forth in 40 CFR 86.1818-12(f)(1) and the in-use CO<sub>2</sub> exhaust emission standard set forth in 40 CFR 86.1818-12(d) as determined by the OEM for the subconfiguration that is identical to

the fuel conversion emission data vehicle (EDV):

\* \* \* \* \*

(iii) Subject to the following exceptions and special provisions, compliance with greenhouse gas emission standards for heavy-duty vehicles subject to 40 CFR 1037.104 is demonstrated by complying with the N<sub>2</sub>O and CH<sub>4</sub> standards and provisions set forth in 40 CFR 1037.104 and the in-use CO<sub>2</sub> exhaust emission standard set forth in 40 CFR 1037.104(b) as determined by the OEM for the subconfiguration that is identical to the fuel conversion emission data vehicle (EDV):

(A) If the OEM complied with alternate standards for N<sub>2</sub>O and/or CH<sub>4</sub>, as allowed under 40 CFR 1037.104(c) you may demonstrate compliance with the same alternate standards.

(B) If you are unable to meet either the N<sub>2</sub>O or CH<sub>4</sub> standards and your fuel conversion CO<sub>2</sub> measured value is lower than the in-use CO<sub>2</sub> exhaust emission standard, you may also convert the difference between the in-use CO<sub>2</sub> exhaust emission standard and the fuel conversion CO<sub>2</sub> measured value into GHG equivalents of CH<sub>4</sub> and/or N<sub>2</sub>O, using 298 g CO<sub>2</sub> to represent 1 g N<sub>2</sub>O, and 25 g CO<sub>2</sub> to represent 1 g CH<sub>4</sub>. You may then subtract the applicable converted values from the fuel conversion measured values of CH<sub>4</sub> and/or N<sub>2</sub>O to demonstrate compliance with the CH<sub>4</sub> and/or N<sub>2</sub>O standards.

(C) You may alternatively comply with the greenhouse gas emission requirements by comparing emissions from the vehicle before and after the fuel conversion. This comparison must be based on FTP test result from the emission data vehicle (EDV) representing the pre-conversion test group. The sum of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O shall be calculated for pre- and post-conversion FTP test results, where CH<sub>4</sub> and N<sub>2</sub>O are weighted by their global warming potentials of 25 and 298, respectively. The post-conversion sum of these emissions must be lower than the pre-conversion greenhouse gas emission result. Calculate CO<sub>2</sub> emissions as specified in 40 CFR 600.113. If we waive N<sub>2</sub>O measurement requirements based on a statement of compliance, disregard N<sub>2</sub>O for all measurements and calculations under this paragraph (a)(2)(iii)(C).

\* \* \* \* \*

§ 85.530 Vehicle/engine labels and packaging labels.

(a) The following labeling requirements apply for clean alternative fuel conversion manufacturers to qualify