

(i) For the full three-diurnal test sequence, diurnal plus hot soak measurements: 2.0 grams per test.

(ii) *Gasoline and methanol fuel only.* For the supplemental two-diurnal test sequence, diurnal plus hot soak measurements: 2.5 grams per test.

(iii) *Gasoline and methanol fuel only.* Running loss test: 0.05 grams per mile.

(iv) *Gasoline and methanol fuel only.* Fuel dispensing spitback test: 1.0 grams per test.

(e) [Reserved]

(f) *Certification short test.* Certification short test emissions from gasoline-fueled Otto-cycle light-duty vehicles and light-duty trucks shall not exceed the following standards:

(1) Hydrocarbons: 100 ppm as hexane.

(2) Carbon monoxide: 0.5%.

(g) *Idle exhaust emission standards, light-duty trucks.* Exhaust emissions of carbon monoxide from gasoline, methanol, natural gas- and liquefied petroleum gas-fueled light-duty trucks shall not exceed 0.50 percent of exhaust gas flow at curb idle for a useful life of 11 years or 120,000 miles, whichever occurs first.

(h) Manufacturers may request to group light-duty truck 4's into the same test group as vehicles subject to more stringent standards, so long as those light-duty truck 4's meet the most stringent standards applicable to any vehicle within that test group, as provided at § 86.1827(a)(5) and (d)(4).

[64 FR 23925, May 4, 1999, as amended at 65 FR 59970, Oct. 6, 2000]

§ 86.1815-02 Emission standards for light-duty trucks 4.

This section applies to 2002 and later model year light-duty truck 4's fueled by gasoline, diesel, methanol, natural gas and liquefied petroleum gas fuels except as noted. Multi-fueled vehicles shall comply with all requirements established for each consumed fuel. For methanol fueled vehicles, references in this section to total hydrocarbons shall mean total hydrocarbon equivalents and references to non-methane hydrocarbons shall mean non-methane hydrocarbon equivalents. This section does not apply to 2004 and later model year vehicles, except as specifically referenced by § 86.1811-04.

(a) *Exhaust emission standards.* (1) Exhaust emissions from light-duty truck 4's shall not exceed the following standards at intermediate useful life:

(i) [Reserved]

(ii) Non-methane hydrocarbons: 0.39 grams per mile.

(iii) Carbon monoxide: 5.0 grams per mile.

(iv) Oxides of nitrogen: 1.1 grams per mile except diesel fueled vehicles which have no standard.

(v) [Reserved]

(2) Exhaust emissions shall not exceed the following standards at full useful life:

(i) Total hydrocarbons: 0.80 grams per mile except natural gas fuel which has no total hydrocarbon standard.

(ii) Non-methane hydrocarbons: 0.56 grams per mile.

(iii) Carbon monoxide: 7.3 grams per mile.

(iv) Oxides of nitrogen: 1.53 grams per mile.

(v) Particulate matter: 0.12 grams per mile.

(b) *Supplemental exhaust emissions.* (1) Supplemental exhaust emissions from gasoline-fueled light-duty truck 4's shall not exceed the following standards at intermediate useful life:

(i) Non-methane hydrocarbon and oxides of nitrogen composite: 1.49 grams per mile.

(ii) *Carbon monoxide.* Regulated vehicles shall meet at least one of the following two sets of standards:

(A) *Individual US06 and SC03 Air Conditioning compliance.* Comply with both the following standards:

(1) 4.4 grams per mile on the A/C test, not applicable to diesel fueled vehicles; and

(2) 13.2 grams per mile on the US06 test; or

(B) *Composite Carbon Monoxide Standard:* 5.0 grams per mile.

(2) Supplemental exhaust emissions from gasoline-fueled light-duty truck 4's shall not exceed the following standards at full useful life:

(i) Nonmethane hydrocarbon and oxides of nitrogen composite: 2.09 grams per mile.

(ii) *Carbon monoxide.* Regulated vehicles shall meet at least one of the following two sets of standards:

(A) *Individual US06 and SC03 Air Conditioning compliance.* Comply with both the following standards:

(1) 6.4 grams per mile on the A/C test, not applicable to diesel fueled vehicles; and

(2) 19.3 grams per mile on the US06 test; or

(B) *Composite Carbon Monoxide Standard:* 7.3 grams per mile.

(c) *Cold temperature emission standards.* Exhaust emissions from gasoline-fueled light-duty truck 4's shall not exceed the cold temperature CO standard of 12.5 grams per mile for an intermediate useful life of 50,000 miles.

(d) *Evaporative emissions.* Evaporative emissions from gasoline-fueled, natural gas-fueled, liquefied petroleum gas-fueled, and methanol-fueled light-duty truck 4's shall not exceed the following standards. The standards apply equally to certification and in-use vehicles. The spitback standard also applies to newly assembled vehicles.

(1) Hydrocarbons for gasoline and methanol light-duty trucks with a nominal fuel tank capacity of 30 gallons or more shall not exceed the following standards:

(i) For the full three-diurnal test sequence, diurnal plus hot soak measurements: 2.5 grams per test.

(ii) *Gasoline and methanol fuel only.* For the supplemental two-diurnal test sequence, diurnal plus hot soak measurements: 3.0 grams per test.

(iii) *Gasoline and methanol fuel only.* Running loss test: 0.05 grams per mile.

(iv) *Gasoline and methanol fuel only.* Fuel dispensing spitback test: 1.0 grams per test.

(2) Hydrocarbons for gasoline and methanol light-duty trucks with a nominal fuel tank capacity of less than 30 gallons shall not exceed the following standards:

(i) For the full three-diurnal test sequence, diurnal plus hot soak measurements: 2.0 grams per test.

(ii) *Gasoline and methanol fuel only.* For the supplemental two-diurnal test sequence, diurnal plus hot soak measurements: 2.5 grams per test.

(iii) *Gasoline and methanol fuel only.* Running loss test: 0.05 grams per mile.

(iv) *Gasoline and methanol fuel only.* Fuel dispensing spitback test: 1.0 grams per test.

(e) [Reserved]

(f) *Certification short test.* Certification short test emissions from gasoline-fueled Otto-cycle light-duty vehicles and light-duty trucks shall not exceed the following standards:

(1) Hydrocarbons: 100 ppm as hexane.

(2) Carbon monoxide: 0.5%.

(g) *Idle exhaust emission standards, light-duty trucks.* Exhaust emissions of carbon monoxide from gasoline, methanol, natural gas- and liquefied petroleum gas-fueled light-duty trucks shall not exceed 0.50 percent of exhaust gas flow at curb idle for a useful life of 11 years or 120,000 miles, whichever occurs first.

(h) Manufacturers may request to group light-duty truck 4's into the same test group as vehicles subject to more stringent standards, so long as those light-duty truck 4's meet the most stringent standards applicable to any vehicle within that test group, as provided at § 86.1827(a)(5) and (d)(4).

[64 FR 23925, May 4, 1999, as amended at 65 FR 6863, Feb. 10, 2000; 65 FR 59970, Oct. 6, 2000]

§ 86.1816-05 Emission standards for complete heavy-duty vehicles.

This section applies to 2005 and later model year complete heavy-duty vehicles (2003 model year for manufacturers choosing Otto-cycle HDE option 1 in § 86.005-1(c)(1), or 2004 model year for manufacturers choosing Otto-cycle HDE option 2 in § 86.005-1(c)(2)) fueled by gasoline, methanol, natural gas and liquefied petroleum gas fuels except as noted. This section does not apply to Medium-duty Passenger Vehicles, which are covered under § 86.1811. This section also applies to 2000 and later model year complete heavy duty vehicles participating in the early banking provisions of the averaging, trading and banking program as specified in § 86.1817-05(n). Multi-fueled vehicles shall comply with all requirements established for each consumed fuel. For methanol fueled vehicles, references in this section to hydrocarbons or total hydrocarbons shall mean total hydrocarbon equivalents and references to non-methane hydrocarbons shall mean non-methane hydrocarbon equivalents.

(a) *Exhaust emission standards.* (1) Exhaust emissions from 2005 and later