

§ 1037.106

40 CFR Ch. I (7–1–12 Edition)

road operation from the standards of this section.

(g) You may optionally certify a vocational vehicle to the standards and useful life applicable to a higher vehicle service class (such as medium heavy-duty instead of light heavy-duty), provided you do not generate credits with the vehicle. If you include smaller vehicles in a credit-generating subfamily (with an FEL below the standard), exclude its production volume from the credit calculation.

§ 1037.106 Exhaust emission standards for CO₂ for tractors above 26,000 pounds GVWR.

(a) The CO₂ standards of this section apply for tractors above 26,000 pounds GVWR. Note that the standards of this section do not apply for vehicles classified as “vocational tractors” under § 1037.630.

(b) The CO₂ standards for tractors above 26,000 pounds GVWR are given in Table 1 to this section. The provisions of § 1037.241 specify how to comply with these standards.

TABLE 1 TO § 1037.106—CO₂ STANDARDS FOR TRACTORS ABOVE 26,000 POUNDS GVWR

GVWR (pounds)	Sub-category	CO ₂ standard (g/ton-mile) for model years 2014–2016	CO ₂ standard (g/ton-mile) for model year 2017 and later
26,000 < GVWR ≤ 33,000	Low-Roof (all cab styles)	107	104
	Mid-Roof (all cab styles)	119	115
	High-Roof (all cab styles)	124	120
GVWR > 33,000	Low-Roof Day Cab	81	80
	Low-Roof Sleeper Cab	68	66
	Mid-Roof Day Cab	88	86
	Mid-Roof Sleeper Cab	76	73
	High-Roof Day Cab	92	89
	High-Roof Sleeper Cab	75	72

(c) No CH₄ or N₂O standards apply under this section. See 40 CFR part 1036 for CH₄ or N₂O standards that apply to engines used in these vehicles.

(d) You may generate or use emission credits under the ABT program, as described in subpart H of this part. This requires that you specify a Family Emission Limit (FEL) for each pollutant you include in the ABT program for each vehicle subfamily. The FEL may not be less than the result of emission modeling from § 1037.520. These FELs serve as the emission standards for the specific vehicle subfamily instead of the standards specified in paragraph (a) of this section.

(e) Your vehicles must meet the exhaust emission standards of this section throughout their full useful life, expressed in service miles or calendar years, whichever comes first. The following useful life values apply for the standards of this section:

(1) 185,000 miles or 10 years, whichever comes first, for vehicles at or below 33,000 pounds GVWR.

(2) 435,000 miles or 10 years, whichever comes first, for vehicles above 33,000 pounds GVWR.

(f) You may optionally certify a tractor to the standards and useful life applicable to a higher vehicle service class (such as heavy heavy-duty instead of medium heavy-duty), provided you do not generate credits with the vehicle. If you include smaller vehicles in a credit-generating subfamily (with an FEL below the standard), exclude its production volume from the credit calculation.

§ 1037.115 Other requirements.

Vehicles required to meet the emission standards of this part must meet the following additional requirements, except as noted elsewhere in this part:

(a) *Adjustable parameters.* Vehicles that have adjustable parameters must meet all the requirements of this part for any adjustment in the physically adjustable range. We may require that you set adjustable parameters to any specification within the adjustable range during any testing. See 40 CFR

part 86 for information related to determining whether or not an operating parameter is considered adjustable. You must ensure safe vehicle operation throughout the physically adjustable range of each adjustable parameter, including consideration of production tolerances. Note that adjustable roof fairings are deemed not to be adjustable parameters.

(b) *Prohibited controls.* You may not design your vehicles with emission control devices, systems, or elements of design that cause or contribute to an unreasonable risk to public health, welfare, or safety while operating. For example, this would apply if the vehicle emits a noxious or toxic substance it would otherwise not emit that contributes to such an unreasonable risk.

(c) *Air conditioning leakage.* Loss of refrigerant from your air conditioning systems may not exceed 1.50 percent per year, except as allowed by paragraphs (c)(2) and (3) of this section. Calculate the total leakage rate in g/year as specified in 40 CFR 86.166. Calculate the percent leakage rate as: $[\text{total leakage rate (g/yr)}] \div [\text{total refrigerant capacity (g)}] \times 100$. Round your leakage rate to the nearest one-hundredth of a percent. See §1037.150 for vocational vehicles.

(1) For purpose of this requirement, “refrigerant capacity” is the total mass of refrigerant recommended by the vehicle manufacturer as representing a full charge. Where full charge is specified as a pressure, use good engineering judgment to convert the pressure and system volume to a mass.

(2) If your system uses a refrigerant other than HFC-134a, adjust your leakage rate by multiplying it by the global warming potential of your refrigerant and dividing the product by 1430 (which is the global warming potential of HFC-134a). Apply this adjustment before comparing your leakage rate to the standard. Determine global warming potentials consistent with 40 CFR 86.1866. Note that global warming potentials represent the equivalent grams of CO₂ that would have the same global warming impact (over 100 years) as one gram of the refrigerant.

(3) If your total refrigerant capacity is less than 734 grams, your leakage

rate may exceed 1.50 percent, as long as the total leakage rate does not exceed 11.0 g/yr. If your system uses a refrigerant other than HFC-134a, you may adjust your leakage rate as specified in paragraph (c)(2) of this section.

§ 1037.120 Emission-related warranty requirements.

(a) *General requirements.* You must warrant to the ultimate purchaser and each subsequent purchaser that the new vehicle, including all parts of its emission control system, meets two conditions:

(1) It is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of this part.

(2) It is free from defects in materials and workmanship that cause the vehicle to fail to conform to the requirements of this part during the applicable warranty period.

(b) *Warranty period.* (1) Your emission-related warranty must be valid for at least:

(i) 5 years or 50,000 miles for spark-ignition vehicles and light heavy-duty vehicles.

(ii) 5 years or 100,000 miles for medium and heavy heavy-duty vehicles.

(iii) 2 years or 24,000 miles for tires.

(2) You may offer an emission-related warranty more generous than we require. The emission-related warranty for the vehicle may not be shorter than any basic mechanical warranty you provide to that owner without charge for the vehicle. Similarly, the emission-related warranty for any component may not be shorter than any warranty you provide to that owner without charge for that component. This means that your warranty for a given vehicle may not treat emission-related and non-emission-related defects differently for any component. The warranty period begins when the vehicle is placed into service.

(c) *Components covered.* The emission-related warranty covers vehicle speed limiters, idle shutdown systems, fairings, and hybrid system components, to the extent such emission-related components are included in the certified emission controls. The emission-related warranty covers all components whose failure would increase a