

If you certify . . .	To the . . .	You may reduce the number of engines in the same power category that are required to meet the . . .	In later model years by . . .
Two engines	0.020 g/kW-hr PM standard, the 0.40 g/kW-hr NO _x standard, and the 0.19 g/kW-hr NMHC standard.	0.020 g/kW-hr PM standard, the 0.40 g/kW-hr NO _x standard, and the 0.19 g/kW-hr NMHC standard.	Three engines.
One engine	0.020 g/kW-hr PM standard, the 0.20 g/kW-hr NO _x standard, and the 0.19 g/kW-hr NMHC standard.	0.020 g/kW-hr PM standard, the 0.40 g/kW-hr NO _x standard, and the 0.19 g/kW-hr NMHC standard.	Two engines.

(2) For engines with maximum power less than 56 kW:

If you certify . . .	To a . . .	You may reduce the number of engines in any family with maximum power between 19 and 56 kW that are required to meet the . . .	In later model years by . . .
Two engines	0.034 g/kW-hr PM standard	0.034 g/kW-hr PM standard	Three engines.

(3) Example: If you produce 100 56–130 kW engines in 2008 that meet all of the applicable the standards listed in § 1039.101, and you produced 10,000 56–130 kW engines in 2012, then only 9,850 of the engines would need to comply with the standards listed in § 1039.101 in 2012.

(c) *Phase-in projections.* You may initially base compliance with the phase-in requirements of § 1039.102 on projected U.S.-directed production volumes. This is allowed for all phase-in model years, except the last year in which less than 100 percent compliance is required. However, if your actual U.S.-directed production volume of engines that comply with the Tier 4

standards is less than the required amount, you must make up the shortfall (in terms of number of engines) before the end of the phase-in period. For example, if you plan in good faith to produce 50 percent of your projected 10,000 56–130kW engines (*i.e.*, 5,000 engines) in 2012 in compliance with the Tier 4 NO_x and NMHC standards, but are only able to produce 4,500 such engines of an actual 10,000 engines, you would need to produce an extra 500 engines in 2013 in compliance with the Tier 4 NO_x and NMHC standards.

(1) For phase-in schedules other than the alternate schedule described in Table 9 of § 1039.102, the deficit allowed by this paragraph (f) may not

exceed 25 percent of your U.S. directed production volume.

(2) For the phase-in schedule described in Table 9 of § 1039.102, the deficit allowed by this paragraph (f) may not exceed 5 percent of your U.S. directed production volume.

(d) *In-use compliance levels.* (1) For purposes of determining compliance after title or custody has transferred to the ultimate purchaser, for model year 2015 or earlier engines having a NO_x FEL no higher than 2.0 g/kW-hr, the applicable NO_x compliance limit shall be determined by adding the following adjustment to the otherwise applicable standard or FEL for NO_x.

In model years . . .	If your engine's maximum power is . . .	The NO _x adjustment in g/kW-hr is . . .
2012–2015	56 ≤ kW < 130	0.13 for operating hours ≤ 4000. 0.27 for operating hours > 4000.
2011–2015	kW ≥ 130	0.13 for operating hours ≤ 4000. 0.27 for operating hours > 4000.

(2) For model years before 2014 for engines with maximum power less than 56 kW, and model years before 2015 for engines with maximum power at 56 kW or higher, for purposes of determining compliance after title or custody has transferred to the ultimate purchaser, the applicable PM compliance limit shall be determined by adding 0.01 g/kW-hr to the otherwise applicable standard or FEL for PM.

(e) *Provisions for small-volume manufacturers.* Special provisions apply to you if you are a small-volume engine manufacturer subject to the requirements of this part. You must contact us before 2008 if you intend to use these provisions.

(1) You may delay complying with the following otherwise applicable Tier 4

emission standards for three model years:

(i) PM standard for engines with maximum power less than 19 kW.

(ii) NMHC + NO_x standard for engines with maximum power at least 19 kW but less than 37 kW.

(iii) NMHC + NO_x and PM standards for engines with maximum power at least 56 kW but less than 130 kW.

(2) For engines with maximum power at least 19 kW but less than 56 kW, if you choose to meet the interim PM standard in § 1039.102 by model year 2011 (without using PM credits), you may delay complying with the Tier 4 PM standard in § 1039.101 for engines with maximum power at least 19 kW but less than 56 kW for three model years.

(f) *Deficiencies for NTE emission standards.* (1) For the first three model years during which Tier 4 standards apply for your engines, you may ask us to accept an engine as compliant with the NTE standards even though specific requirements are not fully met. We will grant such deficiencies (*i.e.*, compliance without meeting specific requirements) only if compliance would be infeasible or unreasonable considering such factors as, but not limited to: technical feasibility of the given hardware and lead time and production cycles, including phase-in or phase-out of engines or vehicle designs and programmed upgrades of computers. We will approve deficiencies on an engine-model and/or horsepower-rating basis within an engine family, and each approval is applicable for a single model