

**Environmental Protection Agency**

**§ 1039.115**

(iii) The adjusted FEL (FEL<sub>adj</sub>) for calculating emission credits is determined from the steady-state FEL (FEL<sub>ss</sub>) using the following equation:

$$FEL_{adj} = (FEL_{ss}) \times (TCAF)$$

(iv) The unadjusted FEL (FEL<sub>ss</sub>) applies for all purposes other than credit calculation.

(3) These alternate FEL caps may not be used for phase-in engines.

(4) Do not apply TCAFs to gaseous emissions for phase-out engines that you certify to the same numerical standards (and FELs if the engines are certified using ABT) for gaseous pollutants as you certified under the Tier 3 requirements of 40 CFR part 89.

TABLE 1 OF § 1039.104.—ALTERNATE FEL CAPS

Maximum engine power	PM FEL cap, g/kW-hr	Model years for the alternate PM FEL cap	NO <sub>x</sub> FEL cap, g/kW-hr	Model years for the alternate NO <sub>x</sub> FEL cap
19 ≤ kW < 56	0.30	<sup>1</sup> 2012–2015	.....	.....
56 ≤ kW < 130 <sup>2</sup>	0.30	<sup>3</sup> 2012–2015	3.8	<sup>3</sup> 2014–2015
130 ≤ kW ≤ 560	0.20	2011–2014	3.8	2014
kW > 560 <sup>4</sup>	0.10	2015–2018	3.5	2015–2018

<sup>1</sup>For manufacturers certifying engines under Option #1 of Table 3 of § 1039.102, these alternate FEL caps apply for model years from 2013 through 2016.  
<sup>2</sup>For engines below 75 kW, the FEL caps are 0.40 g/kW-hr for PM emissions and 4.4 g/kW-hr for NO<sub>x</sub> emissions.  
<sup>3</sup>For engines certified under the provisions of § 1039.102(d)(2) or (e)(1)(ii), the alternate NO<sub>x</sub> FEL cap in the table applies only for the 2015 model year.  
<sup>4</sup>For engines above 560 kW, the provision for alternate NO<sub>x</sub> FEL caps is limited to generator-set engines. For example, if you produce 1,000 generator-set engines above 560 kW in 2015, up to 200 of them may be certified to the alternate NO<sub>x</sub> FEL caps.

**§ 1039.105 What smoke standards must my engines meet?**

(a) The smoke standards in this section apply to all engines subject to emission standards under this part, except for the following engines:

- (1) Single-cylinder engines.
- (2) Constant-speed engines.

(3) Engines certified to a PM emission standard or FEL of 0.07 g/kW-hr or lower.

(b) Measure smoke as specified in § 1039.501(c). Smoke from your engines may not exceed the following standards:

- (1) 20 percent during the acceleration mode.
- (2) 15 percent during the lugging mode.
- (3) 50 percent during the peaks in either the acceleration or lugging modes.

**§ 1039.107 What evaporative emission standards and requirements apply?**

There are no evaporative emission standards for diesel-fueled engines, or engines using other nonvolatile or non-liquid fuels (for example, natural gas). If your engine uses a volatile liquid fuel, such as methanol, you must meet the evaporative emission requirements of 40 CFR part 1048 that apply to spark-ignition engines, as follows:

(a) Follow the steps in 40 CFR 1048.245 to show that you meet the requirements of 40 CFR 1048.105.

(b) Do the following things in your application for certification:

- (1) Describe how your engines control evaporative emissions.
- (2) Present test data to show that equipment using your engines meets the evaporative emission standards we specify in this section if you do not use design-based certification under 40 CFR 1048.245. Show these figures before and after applying deterioration factors, where applicable.

**§ 1039.110 [Reserved]**

**§ 1039.115 What other requirements must my engines meet?**

Engines subject to this part must meet the following requirements, except as noted elsewhere in this part:

(a) *Crankcase emissions.* Crankcase emissions may not be discharged directly into the ambient atmosphere from any engine, except as follows:

- (1) Engines may discharge crankcase emissions to the ambient atmosphere if the emissions are added to the exhaust emissions (either physically or mathematically) during all emission testing.