

service classes are light heavy-duty, medium heavy-duty, and heavy heavy-duty. Note that provisions that apply based on primary intended service class often treat spark-ignition engines as if they were a separate service class.

(a) Light heavy-duty engines usually are not designed for rebuild and do not have cylinder liners. Vehicle body types in this group might include any heavy-duty vehicle built for a light-duty truck chassis, van trucks, multi-stop vans, motor homes and other recreational vehicles, and some straight trucks with a single rear axle. Typical applications would include personal transportation, light-load commercial delivery, passenger service, agriculture, and construction. The GVWR of these vehicles is normally below 19,500 pounds.

(b) Medium heavy-duty engines may be designed for rebuild and may have cylinder liners. Vehicle body types in this group would typically include school buses, straight trucks with dual rear axles, city tractors, and a variety of special purpose vehicles such as small dump trucks, and refuse trucks. Typical applications would include commercial short haul and intra-city delivery and pickup. Engines in this group are normally used in vehicles whose GVWR ranges from 19,500 to 33,000 pounds.

(c) Heavy heavy-duty engines are designed for multiple rebuilds and have cylinder liners. Vehicles in this group are normally tractors, trucks, and buses used in inter-city, long-haul applications. These vehicles normally exceed 33,000 pounds GVWR.

#### § 1036.150 Interim provisions.

The provisions in this section apply instead of other provisions in this part.

(a) *Early banking of greenhouse gas emissions.* You may generate CO<sub>2</sub> emission credits for engines you certify in model year 2013 (2015 for spark-ignition engines) to the standards of § 1036.108.

(1) Except as specified in paragraph (a)(2) of this section, to generate early credits, you must certify your entire U.S.-directed production volume within that averaging set to these standards. This means that you may not generate early credits while you produce engines in the averaging set

that are certified to the criteria pollutant standards but not to the greenhouse gas standards. Calculate emission credits as described in subpart H of this part relative to the standard that would apply for model year 2014 (2016 for spark-ignition engines).

(2) You may generate early credits for an individual compression-ignition engine family where you demonstrate that you have improved a model year 2013 engine model's CO<sub>2</sub> emissions relative to its 2012 baseline level and certify it to an FCL below the applicable standard. Calculate emission credits as described in subpart H of this part relative to the lesser of the standard that would apply for model year 2014 engines or the baseline engine's CO<sub>2</sub> emission rate. Use the smaller U.S.-directed production volume of the 2013 engine family or the 2012 baseline engine family. We will not allow you to generate emission credits under this paragraph (a)(2) unless we determine that your 2013 engine is the same engine as the 2012 baseline or that it replaces it.

(3) You may bank credits equal to the surplus credits you generate under this paragraph (a) multiplied by 1.50. For example, if you have 10 Mg of surplus credits for model year 2013, you may bank 15 Mg of credits. Credit deficits for an averaging set prior to model year 2014 (2016 for spark-ignition engines) do not carry over to model year 2014 (2016 for spark-ignition engines). We recommend that you notify us of your intent to use this provision before submitting your applications.

(b) *Model year 2014 N<sub>2</sub>O standards.* In model year 2014 and earlier, manufacturers may show compliance with the N<sub>2</sub>O standards using an engineering analysis. This allowance also applies for later families certified using carry-over CO<sub>2</sub> data from model 2014 consistent with § 1036.235(d).

(c) *Engine cycle classification.* Engines meeting the definition of spark-ignition, but regulated as diesel engines under 40 CFR part 86, must be certified to the requirements applicable to compression-ignition engines under this part. Such engines are deemed to be compression-ignition engines for purposes of this part. Similarly, engines meeting the definition of compression-ignition, but regulated as Otto-cycle

under 40 CFR part 86 must be certified to the requirements applicable to spark-ignition engines under this part. Such engines are deemed to be spark-ignition engines for purposes of this part.

(d) *Small manufacturers.* Manufacturers meeting the small business criteria specified for “Gasoline Engine and Engine Parts Manufacturing” or “Other Engine Equipment Manufacturers” in 13 CFR 121.201 are not subject to the greenhouse gas emission standards in § 1036.108. Qualifying manufacturers must notify the Designated Compliance Officer before importing or introducing into U.S. commerce excluded engines. This notification must include a description of the manufacturer’s qualification as a small business under 13 CFR 121.201. You must label your excluded vehicles with the statement: “THIS ENGINE IS EXCLUDED UNDER 40 CFR 1037.150(c).”

(e) *Alternate phase-in standards.* Where a manufacturer certifies all of its model year 2013 compression-ignition engines within a given primary intended service class to the applicable alternate standards of this paragraph (e), its compression-ignition engines within that primary intended service class are subject to the standards of this paragraph (e) for model years 2013 through 2016. This means that once a manufacturer chooses to certify a primary intended service class to the standards of this paragraph (e), it is not allowed to opt out of these standards. Engines certified to these standards are not eligible for early credits under paragraph (a) of this section.

Tractors	LHD Engines	MHD Engines	HHD Engines
Model Years 2013–2015.	NA .....	512 g/hp-hr	485 g/hp-hr.
Model Years 2016 and later <sup>a</sup> .	NA .....	487 g/hp-hr	460 g/hp-hr.
Vocational	LHD Engines	MHD Engines	HHD Engines
Model Years 2013–2015.	618 g/hp-hr	618 g/hp-hr	577 g/hp-hr.
Model Years 2016 and later <sup>a</sup> .	576 g/hp-hr	576 g/hp-hr	555 g/hp-hr.

<sup>a</sup> **Note:** These alternate standards for 2016 and later are the same as the otherwise applicable standards for 2017 and later.

(f) *Separate OBD families.* This paragraph (f) applies where you separately certify engines for the purpose of applying OBD requirements (for engines used in vehicles under 14,000 pounds GVWR) from non-OBD engines that could be certified as a single engine family. You may treat the two engine families as a single engine family in certain respects for the purpose of this part, as follows:

(1) This paragraph applies only where the two families are identical in all respects except for the engine ratings offered and the inclusion of OBD.

(2) For purposes of this part and 40 CFR part 86, the two families remain two separate families except for the following:

(i) Specify the testable configurations of the non-OBD engine family as the testable configurations for the OBD family.

(ii) Submit the same CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> emission data for both engine families.

(g) *Assigned deterioration factors.* You may use assigned deterioration factors (DFs) without performing your own durability emission tests or engineering analysis as follows:

(1) You may use an assigned additive DF of 0.0 g/hp-hr for CO<sub>2</sub> emissions from engines that do not use advanced or innovative technologies. If we determine it to be consistent with good engineering judgment, we may allow you to use an assigned additive DF of 0.0 g/hp-hr for CO<sub>2</sub> emissions from your engines with advanced or innovative technologies.

(2) You may use an assigned additive DF of 0.02 g/hp-hr for N<sub>2</sub>O emissions from any engine.

(3) You may use an assigned additive DF of 0.02 g/hp-hr for CH<sub>4</sub> emissions from any engine.

(h) *Advanced technology credits.* If you generate credits from engines certified for advanced technology you may multiply these credits by 1.5, except that you may not apply this multiplier and the early-credit multiplier of paragraph (a) of this section.

(i) *CO<sub>2</sub> credits for low N<sub>2</sub>O emissions.* If you certify your model year 2014, 2015, or 2016 engines to an N<sub>2</sub>O FEL less than 0.04 g/hp-hr (provided you measure N<sub>2</sub>O

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emissions from your emission-data engines), you may generate additional CO<sub>2</sub> credits under this paragraph (i). Calculate the additional CO<sub>2</sub> credits from the following equation instead of the equation in §1036.705:

CO<sub>2</sub> Credits (Mg) = (0.04 - FEL<sub>N2O</sub>) · (CF) · (Volume) · (UL) · (10<sup>-6</sup>) · (298)

EFFECTIVE DATE NOTE: At 78 FR 36389, June 17, 2013, §1036.150 was amended by revising paragraphs (d), (g)(2), and (g)(3), effective Aug. 16, 2013. For the convenience of the user, the revised text is set forth as follows:

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(d) Small manufacturers. Manufacturers meeting the small business criteria specified for "Gasoline Engine and Engine Parts Manufacturing" or "Other Engine Equipment Manufacturers" in 13 CFR 121.201 are not subject to the greenhouse gas emission standards in §1036.108. Qualifying manufacturers must notify the Designated Compliance Officer before importing or introducing into U.S. commerce excluded engines. This notification must include a description of the manufacturer's qualification as a small business under 13 CFR 121.201. You must label your excluded engines with the statement: "THIS ENGINE IS EXCLUDED UNDER 40 CFR 1036.150(d)."

\* \* \* \* \*

(g) \* \* \*

(2) You may use an assigned additive DF of 0.020 g/hp-hr for N<sub>2</sub>O emissions from any engine.

(3) You may use an assigned additive DF of 0.020 g/hp-hr for CH<sub>4</sub> emissions from any engine.

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Subpart C—Certifying Engine Families

§ 1036.205 What must I include in my application?

Submit an application for certification as described in 40 CFR 86.007-21, with the following additional information:

(a) Describe the engine family's specifications and other basic parameters of the engine's design and emission controls with respect to compliance with the requirements of this part. Describe in detail all system components

for controlling greenhouse gas emissions, including all auxiliary emission control devices (AECDs) and all fuel-system components you will install on any production or test engine. Identify the part number of each component you describe. For this paragraph (a), treat as separate AECDs any devices that modulate or activate differently from each other.

(b) Describe any test equipment and procedures that you used if you performed any tests that did not also involve measurement of criteria pollutants. Describe any special or alternate test procedures you used (see 40 CFR 1065.10(c)).

(c) Include the emission-related installation instructions you will provide if someone else installs your engines in their vehicles (see §1036.130).

(d) Describe the label information specified in §1036.135. We may require you to include a copy of the label.

(e) Identify the FCLs with which you are certifying engines in the engine family. The actual U.S.-directed production volume of configurations that have emission rates at or below the FCL must be at least one percent of your total actual (not projected) U.S.-directed production volume for the engine family. Identify configurations within the family that have emission rates at or below the FCL and meet the one percent requirement. For example, if your total U.S.-directed production volume for the engine family is 10,583, and the U.S.-directed production volume for the tested rating is 75 engines, then you can comply with this provision by setting your FCL so that one more rating with a U.S.-directed production volume of at least 31 engines meets the FCL. Where applicable, also identify other testable configurations required under §1036.230(b)(2).

(f) Identify the engine family's deterioration factors and describe how you developed them (see §1036.241). Present any test data you used for this.

(g) Present emission data to show that you meet emission standards, as follows:

(1) Present exhaust emission data for CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O on an emission-data engine to show that your engines meet the applicable emission standards we