

(11) List specifications and adjustments for engine tuneups; show the proper position for the transmission during tuneup and state which accessories should be operating.

(12) Describe other information on proper maintenance and use.

(13) If your engines are certified only for constant-speed operation under § 1039.510(a)(1), add to the engine label "CONSTANT-SPEED ONLY".

(14) You may add information to identify other emission standards that the engine meets or does not meet (such as European standards).

(e) If there is not enough space for an emission control information label with all the required information, you may omit the information required in paragraphs (c)(3), (c)(4), and (c)(12) of this section if you print it in the owner's manual instead.

(f) For diesel-fueled engines, label both the engine and equipment to indicate the maximum allowable sulfur level of the fuel, as described in your application for certification.

(1) The label should state either:

(i) "ULTRA LOW-SULFUR NONROAD DIESEL FUEL OR ON-HIGHWAY DIESEL FUEL ONLY (15 parts per million)"; or

(ii) "LOW-SULFUR NONROAD DIESEL FUEL, ULTRA LOW-SULFUR NONROAD DIESEL FUEL, OR ON-HIGHWAY DIESEL FUEL ONLY (500 ppm maximum)".

(2) The equipment must be labeled near the fuel inlet. If you manufacture the engine, but not the equipment, provide the appropriate label to the equipment manufacturer and notify the equipment manufacturer in the installation instructions. Optionally, if the equipment manufacturer chooses to install its own label, you are not required to provide the label.

(g) You may ask us to approve modified labeling requirements in this part if you show that you are unable to meet them. We will approve your request if this is necessary and your alternate label is consistent with the requirements of this part.

(h) If you obscure the engine label while installing the engine in the equipment, you must place a duplicate label on the equipment. If others install your engine in their equipment in a way that obscures the engine label, we require them to add a duplicate label on the equipment (see 40 CFR 1068.105); in that case, give them the number of duplicate labels they request and keep the following records:

(1) The written request from the equipment manufacturer.

(2) The number of duplicate labels you send and the date you send them.

Subpart C—Certifying Engine Families

§ 1039.201 What are the general requirements for obtaining a certificate of conformity?

(a) You must send us a separate application for a certificate of conformity for each engine family. A certificate of conformity is valid from the date it is issued until December 31 of the model year for which it is issued.

(b) The application must contain all of the information required by this part and must not include false or incomplete statements or information (see § 1039.255).

(c) We may ask you to include less information than we specify in this subpart, provided that all of the specified information is maintained as required by § 1039.250.

(d) You must use good engineering judgment for all decisions related to your application (see 40 CFR 1068.5).

(e) An authorized representative of your company must approve and sign the application.

(f) See § 1039.255 for provisions describing how we will process your application.

§ 1039.205 What must I include in my application?

This section specifies the information that must be in your application, unless we ask you to include less information under § 1039.201(c). We may require you to provide additional information to evaluate your application.

(a) Describe the engine family's specifications and other basic parameters of the engine's design and emission controls. List the types of fuel on which your engines are designed to operate (for example, diesel fuel). For each engine configuration, list the intended maximum engine power and the associated production tolerances. If the production tolerance for maximum engine power for any configuration exceeds ± 5 percent, or if the distribution of actual maximum engine power is asymmetrically distributed around the intended maximum engine power, then you must demonstrate that you have taken reasonable steps to minimize production variability with respect to maximum engine power.

(b) Explain how the emission-control system operates. Describe in detail all the system components for controlling exhaust emissions, including auxiliary emission control devices (AECDs) and all fuel-system components you will install on any production or test engine. For this paragraph (b), treat as separate AECDs any devices that modulate or activate differently from each other. Include all the following:

(1) Give a general overview of the engine, the emission-control strategies, and all AECDs.

(2) Describe each AECD's general purpose and function.

(3) Identify the parameters that each AECD senses (including measuring, estimating, calculating, or empirically deriving the values). Include equipment-based parameters and state whether you simulate them during testing with the applicable procedures.

(4) Describe the purpose for sensing each parameter.

(5) Identify the location of each sensor the AECD uses.

(6) Identify the threshold values for the sensed parameters that activate the AECD.

(7) Describe the parameters that the AECD modulates (controls) in response to any sensed parameters, including the range of modulation for each parameter, the relationship between the sensed parameters and the controlled parameters and how the modulation achieves the AECD's stated purpose. Use graphs and tables, as necessary.

(8) Describe each AECD's specific calibration details. This may be in the form of data tables, graphical representations, or some other description.

(9) Describe the hierarchy among the AECDs when multiple AECDs sense or modulate the same parameter. Describe whether the strategies interact in a comparative or additive manner and identify which AECD takes precedence in responding, if applicable.

(10) Explain the extent to which the AECD is included in the applicable test procedures specified in subpart F of this part.

(11) Do the following additional things for AECDs designed to protect engines or equipment:

(i) Identify the engine and/or equipment design limits that make protection necessary and describe any damage that would occur without the AECD.

(ii) Describe how each sensed parameter relates to the protected components' design limits or those operating conditions that cause the need for protection.

(iii) Describe the relationship between the design limits/parameters being protected and the parameters sensed or calculated as surrogates for those design limits/parameters, if applicable.

(iv) Describe how the modulation by the AECD prevents engines and/or equipment from exceeding design limits.

(v) Explain why it is necessary to estimate parameters instead of measuring them directly and describe