§ 1039.230

new or modified nonroad engine. You may ask for a hearing if we deny your request (see § 1039.820).

(e) For engine families already covered by a certificate of conformity, you may start producing the new or modified nonroad engine anytime after you send us your amended application, before we make a decision under paragraph (d) of this section. However, if we determine that the affected engines do not meet applicable requirements, we will notify you to cease production of the engines and may require you to recall the engines at no expense to the owner. Choosing to produce engines under this paragraph (e) is deemed to be consent to recall all engines that we determine do not meet applicable emission standards or other requirements and to remedy the nonconformity at no expense to the owner. If you do not provide information required under paragraph (c) of this section within 30 days, you must stop producing the new or modified nonroad engines.

(f) You may ask to change your FEL in the following cases:

- (1) You may ask to raise your FEL after the start of production. You may not apply the higher FEL to engines you have already introduced into commerce. Use the appropriate FELs with corresponding sales volumes to calculate your average emission level, as described in subpart H of this part. In your request, you must demonstrate that you will still be able to comply with the applicable average emission standards as specified in subparts B and H of this part.
- (2) You may ask to lower the FEL for your engine family after the start of production only when you have test data from production engines indicating that your engines comply with the lower FEL. You may create a separate subfamily with the lower FEL. Otherwise, you must use the higher FEL for the family to calculate your average emission level under subpart H of this part.
- (3) If you change the FEL during production, you must include the new FEL on the emission control information label for all engines produced after the change.

[69 FR 39213, June 29, 2004, as amended at 70 FR 40463, July 13, 2005]

§ 1039.230 How do I select engine families?

- (a) Divide your product line into families of engines that are expected to have similar emission characteristics throughout the useful life. Your engine family is limited to a single model year.
- (b) Group engines in the same engine family if they are the same in all the following aspects:
 - (1) The combustion cycle and fuel.
- (2) The cooling system (water-cooled vs. air-cooled).
 - (3) Method of air aspiration.
- (4) Method of exhaust aftertreatment (for example, catalytic converter or particulate trap).
- (5) Combustion chamber design.
- (6) Bore and stroke.
- (7) Number of cylinders (for engines with aftertreatment devices only).
- (8) Cylinder arrangement (for engines with aftertreatment devices only).
- (9) Method of control for engine operation other than governing (*i.e.*, mechanical or electronic).
 - (10) Power category
- (11) Numerical level of the emission standards that apply to the engine.
- (c) You may subdivide a group of engines that is identical under paragraph (b) of this section into different engine families if you show the expected emission characteristics are different during the useful life.
- (d) You may group engines that are not identical with respect to the things listed in paragraph (b) of this section in the same engine family if you show that their emission characteristics during the useful life will be similar.
- (e) If you combine engines from different power categories into a single engine family under paragraph (d) of this section, you must certify the engine family to the more stringent set of standards from the two power categories in that model year.

§ 1039.235 What emission testing must I perform for my application for a certificate of conformity?

This section describes the emission testing you must perform to show compliance with the emission standards in \$1039.101(a) and (b) or \$1039.102(a) and (b). See \$1039.205(p) regarding emission testing related to the NTE standards.

See §1039.240, §1039.245, and 40 CFR part 1065, subpart E, regarding service accumulation before emission testing.

- (a) Test your emission-data engines using the procedures and equipment specified in subpart F of this part.
- (b) Select an emission-data engine from each engine family for testing. Select the engine configuration with the highest volume of fuel injected per cylinder per combustion cycle at the point of maximum torque-unless good engineering judgment indicates that a different engine configuration is more likely to exceed (or have emissions nearer to) an applicable emission standard or FEL. If two or more engines have the same fueling rate at maximum torque, select the one with the highest fueling rate at rated speed. In making this selection, consider all factors expected to affect emissioncontrol performance and compliance with the standards, including emission levels of all exhaust constituents, especially NOx and PM.
- (c) We may measure emissions from any of your test engines or other engines from the engine family, as follows:
- (1) We may decide to do the testing at your plant or any other facility. If we do this, you must deliver the test engine to a test facility we designate. The test engine you provide must include appropriate manifolds, aftertreatment devices, electronic control units, and other emission-related components not normally attached directly to the engine block. If we do the testing at your plant, you must schedule it as soon as possible and make available the instruments, personnel, and equipment we need.
- (2) If we measure emissions on one of your test engines, the results of that testing become the official emission results for the engine. Unless we later invalidate these data, we may decide not to consider your data in determining if your engine family meets applicable requirements.
- (3) Before we test one of your engines, we may set its adjustable parameters to any point within the physically adjustable ranges (see § 1039.115(e)).
- (4) Before we test one of your engines, we may calibrate it within nor-

mal production tolerances for anything we do not consider an adjustable parameter.

- (d) You may ask to use emission data from a previous model year instead of doing new tests, but only if all the following are true:
- (1) The engine family from the previous model year differs from the current engine family only with respect to model year.
- (2) The emission-data engine from the previous model year remains the appropriate emission-data engine under paragraph (b) of this section.
- (3) The data show that the emissiondata engine would meet all the requirements that apply to the engine family covered by the application for certification.
- (e) We may require you to test a second engine of the same or different configuration in addition to the engine tested under paragraph (b) of this section.
- (f) If you use an alternate test procedure under 40 CFR 1065.10 and later testing shows that such testing does not produce results that are equivalent to the procedures specified in subpart F of this part, we may reject data you generated using the alternate procedure.

§ 1039,240 How do I demonstrate that my engine family complies with exhaust emission standards?

- (a) For purposes of certification, your engine family is considered in compliance with the applicable numerical emission standards in §1039.101(a) and (b), §1039.102(a) and (b), §1039.104, and §1039.105 if all emission-data engines representing that family have test results showing deteriorated emission levels at or below these standards. (Note: if you participate in the ABT program in subpart H of this part, your FELs are considered to be the applicable emission standards with which you must comply.)
- (b) Your engine family is deemed not to comply if any emission-data engine representing that family has test results showing a deteriorated emission level above an applicable FEL or emission standard from §1039.101, §1039.102, §1039.104, or §1039.105 for any pollutant.