

how the AECD calculates the estimated value, if applicable.

(vi) Describe how you calibrate the AECD modulation to activate only during conditions related to the stated need to protect components and only as needed to sufficiently protect those components.

(c) [Reserved]

(d) Describe the engines you selected for testing and the reasons for selecting them.

(e) Describe the test equipment and procedures that you used, including any special or alternate test procedures you used (see § 1039.501).

(f) Describe how you operated the test engine prior to testing, including the duty cycle and the number of engine operating hours used to stabilize emission levels. Explain why the method of service accumulation was selected. Describe any scheduled maintenance you did.

(g) List the specifications of the test fuel to show that it falls within the required ranges we specify in 40 CFR part 1065, subpart C.

(h) Identify the engine family's useful life.

(i) Propose maintenance and use instructions for the ultimate purchaser of each new nonroad engine (see § 1039.125).

(j) Propose emission-related installation instructions if you sell engines for someone else to install in a piece of nonroad equipment (see § 1039.130).

(k) Propose an emission control information label.

(l) Identify the emission standards or FELs to which you are certifying engines in the engine family. Identify the of specifications of ambient operating regions that will apply for NTE testing under § 1039.101(d)(4) (i).

(m) Identify the engine family's deterioration factors and describe how you developed them (see § 1039.245). Present any emission test data you used for this.

(n) Certify that you operated your test engines as described in the application (including the test procedures, test parameters, and test fuels) to show you meet the requirements of this part.

(o) Present emission data to show that you meet the applicable emission standards. Present emission data for hydrocarbons (NMHC or THCE, as applicable), NO_x, and CO on a test engine to show your engines meet the duty-cycle emission standards we specify in § 1039.101. Show these figures before and after applying regeneration factors and deterioration factors for each engine. Include test data for each type of fuel from 40 CFR part

1065, subpart C, on which you intend for engines in the engine family to operate. If we specify more than one grade of any fuel type (for example, No. 1 and No. 2 diesel fuel), you only need to submit test data for one grade, unless the regulations of this part specify otherwise for your engine. Note that § 1039.235 allows you to submit an application in certain cases without new emission data.

(p) Report all test results, including those from invalid tests or from any other tests, whether or not they were conducted according to the test procedures of subpart F of this part.

(q) Describe all adjustable operating parameters (see § 1039.115(e)), including production tolerances. Include the following in your description of each parameter:

(1) The nominal or recommended setting.

(2) The intended physically adjustable range.

(3) The limits or stops used to establish adjustable ranges.

(4) Information showing why the limits, stops, or other means of inhibiting adjustment are effective in preventing adjustment of parameters on in-use engines to settings outside the your intended physically adjustable ranges.

(r) Provide the information to read and interpret all the information broadcast by an engine's onboard computers and electronic control modules. State that, upon request, you will give us any hardware, software, or tools we would need to do this. If you broadcast a surrogate parameter for torque values, you must provide us what we need to convert these into torque units. You may reference any appropriate publicly released standards that define conventions for these messages and parameters. Format your information consistent with publicly released standards.

(s) Confirm that nothing will prevent sampling of exhaust emissions after engines are installed in equipment and placed in service. If this cannot be done by simply adding a 20-cm extension to the exhaust pipe, show how to sample exhaust emissions in a way that prevents diluting the exhaust sample with ambient air.

(t) State whether your engines will be limited to constant-speed applications. If your certification is limited to constant-speed applications, describe how you will prevent use of these engines in applications for which they are not certified.

(u) Certify that all the engines in the engine family comply with the not-to-exceed emission standards we specify in

subpart B of this part for all normal operation and use when tested as specified in § 1039.515. Describe in detail any testing, engineering analysis, or other information on which you base this statement.

(v) Unconditionally certify that all the engines in the engine family comply with the requirements of this part, other referenced parts of the CFR, and the Clean Air Act.

(w) Include estimates of U.S.-directed production volumes.

(x) Include the information required by other subparts of this part. For example, include the information required by § 1039.730, if you participate in the ABT program.

§ 1039.210 May I get preliminary approval before I complete my application?

If you send us information before you finish the application, we will review it and make any appropriate determinations, especially for questions related to engine family definitions, deterioration factors, service accumulation testing, and maintenance. Decisions made under this section are considered to be preliminary approval, subject to final review and approval. If you request preliminary approval related to the upcoming model year or the model year after that, we will make best-efforts to make the appropriate determinations as soon as practicable. We will generally not provide preliminary approval related to a future model year more than two years ahead of time.

§ 1039.220 How do I amend the maintenance instructions in my application?

You may amend your emission-related maintenance instructions after you submit your application for certification, as long as the amended instructions remain consistent with maintenance you performed on test engines and conform to the requirements of this part. You must send the Designated Compliance Officer a request to amend your application for certification or certificate of conformity for an engine family if you want to change the emission-related maintenance instructions in a way that could affect emissions. In your request, describe the proposed changes to the maintenance instructions. We will disapprove your request if we determine that the amended instructions are inconsistent with maintenance you performed on test engines.

(a) If you are decreasing the specified level of maintenance, you may distribute the new maintenance instructions to your customers 30 days