

Subpart E—Certification Provisions

SOURCE: 77 FR 36383, June 18, 2012, unless otherwise noted.

§ 87.40 General certification requirement.

Manufacturers of engines subject to this part must meet the requirements of title 14 of the Code of Federal Regulations as applicable.

§ 87.42 Production report to EPA.

Engine manufacturers must submit an annual production report as specified in this section. This requirement applies for engines produced on or after January 1, 2013.

(a) You must submit the report for each calendar year in which you produce any engines subject to emission standards under this part. The report is due by February 28 of the following calendar year. Note that § 87.64 requires you to report CO₂ emission rates to EPA in addition to NO_x. Include these data in the report required by this section. If you produce exempted or excepted engines, you may submit a single report with information on exempted/excepted and normally certificated engines.

(b) Send the report to the Designated EPA Program Officer.

(c) In the report, specify your corporate name and the year for which you are reporting. Include information as described in this section for each engine sub-model subject to emission standards under this part. List each engine sub-model produced or certificated during the calendar year, including the following information for each sub-model:

(1) The type of engine (turbofan, turboprop, etc.) and complete sub-model name, including any applicable model name, sub-model identifier, and engine type certificate family identifier.

(2) The certificate under which it was produced. Identify all the following:

(i) The type certificate number. Specify if the sub-model also has a type certificate issued by a certifying authority other than FAA.

(ii) Your corporate name as listed in the certificate.

(iii) Emission standards to which the engine is certificated.

(iv) Date of issue of type certificate (month and year).

(v) Whether or not this is a derivative engine for emissions certification purposes. If so, identify the original certificated engine model.

(vi) The engine sub-model that received the original type certificate for an engine type certificate family.

(3) Identify the combustor of the sub-model, where more than one type of combustor is available.

(4) The calendar-year production volume of engines from the sub-model that are covered by an FAA type certificate. Record zero for sub-models with no engines produced during the calendar year, or state that the engine model is no longer in production and list the date of manufacture (month and year) of the last engine produced. Specify the number of these engines that are intended for use on new aircraft and the number that are intended for use as non-exempt engines on in-use aircraft. For engines delivered without a final sub-model status and for which the manufacturer has not ascertained the engine's sub-model when installed before submitting its production report, the manufacturer may do any of the following in its initial report, and amend it later:

(i) List the sub-model that was shipped or the most probable sub-model.

(ii) List all potential sub-models.

(iii) State "Unknown Sub-Model."

(5) The number of engines tested and the number of test runs for the applicable type certificate.

(6) The applicable test data and related information specified in Part III, Section 2.4 of ICAO Annex 16 (incorporated by reference in § 87.8), except as otherwise allowed by this paragraph. For purposes of this paragraph (c)(6), applicable test data means data required to certify the engine sub-model, which would typically include NO_x, HC, CO and smoke number. However, applicable test data would not include NO_x, HC, or CO emissions for engines subject to only smoke standards. Note that § 87.64 also requires you to report CO₂ emissions. Specify thrust in kW for turboprop engines. You may omit the following items specified in Part III, Section 2.4 of ICAO Annex 16:

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(i) Fuel specifications including fuel specification reference and hydrogen/carbon ratio.

(ii) Methods used for data acquisition, correcting for ambient conditions, and data analysis.

(iii) Intermediate emission indices and rates, however you may not omit the final characteristic level for each regulated pollutant in units of g/kN or g/kW.

(d) Clearly show what information you consider confidential by marking, circling, bracketing, stamping, or some other method. We will store your confidential information as described in 40 CFR part 2. Also, we will disclose it only as specified in 40 CFR part 2. If you send us information without claiming it is confidential, we may make it available to the public without further notice to you, as described in 40 CFR 2.204.

(e) Include the following signed statement and endorsement by an authorized representative of your company: "We submit this report under 40 CFR 87.42. All the information in this report is true and accurate to the best of my knowledge."

(f) Where information provided for the previous year remains valid and complete, you may report your production volumes and state that there are no changes, without resubmitting the other information specified in this section.

§ 87.46 Recordkeeping.

(a) You must keep a copy of any reports or other information you submit to us for at least three years.

(b) Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

§ 87.48 Derivative engines for emissions certification purposes.

(a) *General.* A type certificate holder may request from the FAA a determination that an engine configuration is considered a derivative engine for emissions certification purposes. This would mean that the engine configuration is determined to be similar in de-

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sign to a previously certificated engine (the "original" engine) for purposes of compliance with exhaust emission standards (gaseous and smoke). In order for the engine configuration to be considered a derivative engine for emission purposes under this part, it must have been derived from an original engine that was certificated to the requirements of 14 CFR part 33, and one of the following conditions must be met:

(1) The FAA determined that a safety issue exists that requires an engine modification.

(2) Emissions from the derivative engines are determined to be similar. In general, this means the emissions must meet the criteria specified in paragraph (b) of this section. FAA may adjust these criteria in unusual circumstances, consistent with good engineering judgment.

(3) All of the regulated emissions from the derivative engine are lower than the original engine.

(b) *Emissions similarity.* (1) The type certificate holder must demonstrate that the proposed derivative engine model's emissions meet the applicable standards and differ from the original model's emission rates only within the following ranges:

(i) ± 3.0 g/kN for NO_x.

(ii) ± 1.0 g/kN for HC.

(iii) ± 5.0 g/kN for CO.

(iv) ± 2.0 SN for smoke.

(2) If the characteristic level of the original certificated engine model (or any other sub-models within the emission type certificate family tested for certification) before modification is at or above 95% of the applicable standard for any pollutant, you must measure the proposed derivative engine model's emissions for all pollutants to demonstrate that the derivative engine's resulting characteristic levels will not exceed the applicable emission standards. If the characteristic levels of the originally certificated engine model (and all other sub-models within the emission type certificate family tested for certification) are below 95% of the applicable standard for each pollutant, then, you may use engineering analysis to demonstrate that the derivative engine will not exceed the applicable emission standards, consistent with