§ 600.006 Data and information requirements for fuel economy data vehicles.

(a) For certification vehicles with less than 10,000 miles, the requirements of this section are considered to have been met except as noted in paragraph (c) of this section.

(b)(1) The manufacturer shall submit the following information for each fuel economy data vehicle:

(i) A description of the vehicle, exhaust emission test results, applicable deterioration factors, adjusted exhaust emission levels, and test fuel property values as specified in §600.113–08.

(ii) A statement of the origin of the vehicle including total mileage accumulation, and modification (if any) form the vehicle configuration in which the mileage was accumulated. (For modifications requiring advance approval by the Administrator, the name of the Administrator’s representative approving the modification and date of approval are required.) If the vehicle was previously used for testing for compliance with part 86 of this chapter or previously accepted by the Administrator as a fuel economy data vehicle in a different configuration, the requirements of this paragraph may be satisfied by reference to the vehicle number and previous configuration.

(iii) A statement that the fuel economy data vehicle for which data are submitted:

(A) Has been tested in accordance with applicable test procedures;

(B) Is, to the best of the manufacturer’s knowledge, representative of the vehicle configuration listed; and

(C) Is in compliance with applicable exhaust emission standards.

(2) The manufacturer shall retain the following information for each fuel economy data vehicle, and make it available to the Administrator upon request:

(i) A description of all maintenance to engine, emission control system, or fuel system, or fuel system components performed within 2,000 miles prior to fuel economy testing.

(ii) In the case of electric vehicles, plug-in hybrid electric vehicles, and hybrid electric vehicles, a description of all maintenance to electric motor, motor controller, battery configuration, or other components performed within 2,000 miles prior to fuel economy testing.

(iii) A copy of calibrations for engine, fuel system, and emission control devices, showing the calibration of the actual components on the test vehicle as well as the design tolerances.
(iv) In the case of electric vehicles, plug-in hybrid electric vehicles, and hybrid electric vehicles, a copy of calibrations for the electric motor, motor controller, battery configuration, or other components on the test vehicle as well as the design tolerances.

(v) If calibrations for components specified in paragraph (b)(2)(iii) or (iv) of this section were submitted previously as part of the description of another vehicle or configuration, the original submission may be referenced.

(c) The manufacturer shall submit the following fuel economy data:

1. For vehicles tested to meet the requirements of part 86 of this chapter (other than those chosen in accordance with the provisions related to durability demonstration in §86.1829 of this chapter or in-use verification testing in §86.1845 of this chapter), the FTP, highway, US06, SC03 and cold temperature FTP fuel economy results, as applicable, from all tests on that vehicle, and the test results adjusted in accordance with paragraph (g) of this section.

2. For each fuel economy data vehicle, all individual test results (excluding results of invalid and zero mile tests) and these test results adjusted in accordance with paragraph (g) of this section.

3. For diesel vehicles tested to meet the requirements of part 86 of this chapter, data from a cold temperature FTP, performed in accordance with §600.111–08(e), using the fuel specified in §600.107–08(c).

4. For all vehicles tested in paragraph (c)(1) through (3) of this section, the individual fuel economy results measured on a per-phase basis, that is, the individual phase results for all sample phases of the FTP, cold temperature FTP and US06 tests.

5. Starting with the 2012 model year, the data submitted according to paragraphs (c)(1) through (4) of this section shall include total HC, CO, CO\(_2\) and, where applicable for alternative fuel vehicles, CH\(_3\)OH, C\(_2\)H\(_5\)OH, C\(_3\)H\(_5\)O, HCHO, NMHC and CH\(_4\). Manufacturers incorporating N\(_2\)O and CH\(_4\) emissions in their fleet average carbon-related exhaust emissions as allowed under §86.1819 of this chapter shall also submit N\(_2\)O and CH\(_4\) emission data where applicable. The fuel economy, carbon-related exhaust emissions, and CO\(_2\) emission test results shall be adjusted in accordance with paragraph (g) of this section.

(d) The manufacturer shall submit an indication of the intended purpose of the data (e.g., data required by the general labeling program or voluntarily submitted for specific labeling).

(e) In lieu of submitting actual data from a test vehicle, a manufacturer may provide fuel economy, CO\(_2\) emissions, and carbon-related exhaust emission values derived from a previously tested vehicle, where the fuel economy, CO\(_2\) emissions, and carbon-related exhaust emissions are expected to be equivalent (or less fuel-efficient and with higher CO\(_2\) emissions and carbon-related exhaust emissions). Additionally, in lieu of submitting actual data from a test vehicle, a manufacturer may provide fuel economy, CO\(_2\) emissions, and carbon-related exhaust emission values derived from an analytical expression, e.g., regression analysis. In order for fuel economy, CO\(_2\) emissions, and carbon-related exhaust emission values derived from analytical methods to be accepted, the expression (form and coefficients) must have been approved by the Administrator.

(f) If, in conducting tests required or authorized by this part, the manufacturer utilizes procedures, equipment, or facilities not described in the Application for Certification required in §86.1844–01 of this chapter, the manufacturer shall submit to the Administrator a description of such procedures, equipment, and facilities.

(g)(1) The manufacturer shall adjust all test data used for fuel economy label calculations in subpart D and average fuel economy calculations in subpart F for the classes of automobiles within the categories identified in paragraphs of §600.510(a)(1) through (4). The test data shall be adjusted in accordance with paragraph (g)(3) or (4) of this section as applicable.

2. [Reserved]

3. (i) The manufacturer shall adjust all fuel economy test data generated by vehicles with engine-drive system combinations with more than 6,200 miles by using the following equation:

\[
FE_{4,000mi} = FE_0 \times [0.979 + 5.25 \times 10^{-6}(mi)]^{-1}
\]
Where:
FE_{4,000} = Fuel economy data adjusted to 4,000-mile test point rounded to the nearest 0.1 mpg.
FE_T = Tested fuel economy value rounded to the nearest 0.1 mpg.
mi = System miles accumulated at the start of the test rounded to the nearest whole mile.

(ii)(A) The manufacturer shall adjust all carbon-related exhaust emission (CREE) and all CO_2 test data generated by vehicles with engine-drive system combinations with more than 6,200 miles by using the following equation:
\[
\text{ADJ}_{4,000} = \text{TEST} \cdot 0.979 + 5.25 \cdot 10^{-6} \cdot (\text{mi})
\]
Where:
\text{ADJ}_{4,000} = \text{CREE} or \text{CO}_2 emission data adjusted to 4,000-mile test point.
\text{TEST} = \text{Tested emissions value of CREE or CO}_2 in grams per mile.
\text{mi} = \text{System miles accumulated at the start of the test rounded to the nearest whole mile.}

(B) Emissions test values and results used and determined in the calculations in this paragraph (g)(3)(ii) shall be rounded in accordance with §86.1837 of this chapter as applicable. CO_2 values shall be rounded to the nearest gram per mile.

(C) Note that the CREE test results are determined using the unadjusted CO_2 value; i.e., CO_2 is not adjusted twice when determining the 4,000 mile CREE value.

(4) Each fuel economy data vehicle must meet the same exhaust emission standards as certification vehicles of the respective engine-system combination during the test in which the city vehicles were tested.

§ 600.007 Vehicle acceptability.

(a) All certification vehicles and other vehicles tested to meet the requirements of part 86 of this chapter (other than those chosen under the durability-demonstration provisions in §86.1829 of this chapter), are considered to have met the requirements of this section.

(b) Any vehicle not meeting the provisions of paragraph (a) of this section must be judged acceptable by the Administrator under this section in order for the test results to be reviewed for use in subpart C or F of this part. The Administrator will judge the acceptability of a fuel economy data vehicle on the basis of the information supplied by the manufacturer under §600.006(b). The criteria to be met are:

(1) A fuel economy data vehicle may have accumulated not more than 10,000 miles. A vehicle will be considered to have met this requirement if the engine and drivetrain have accumulated 10,000 or fewer miles. The Administrator may specify a different maximum value for electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles that allows for the necessary operation for properly evaluating and characterizing those vehicles under this part. The components installed for a fuel economy test are not required to be the ones with which the mileage was accumulated, e.g., axles, transmission types, and tire sizes may be changed. The Administrator will determine if vehicle/engine component changes are acceptable.

(2) A vehicle may be tested in different vehicle configurations by change of vehicle components, as specified in paragraph (b)(1) of this section, or by testing in different inertia weight classes. Also, a single vehicle may be tested under different test conditions, i.e., test weight and/or road load horsepower, to generate fuel economy data representing various situations within a vehicle configuration. For purposes of this part, data generated by a single vehicle tested in various test conditions will be treated as if the data were generated by the testing of multiple vehicles.

(3) The mileage on a fuel economy data vehicle must be, to the extent possible, accumulated according to §86.1831 of this chapter.

(4) Each fuel economy data vehicle must meet the same exhaust emission standards as certification vehicles of the respective engine-system combination during the test in which the city...