

the procedures of paragraphs (b)(1) through (4) of this section shall be used to calculate two separate sets of city, highway, and combined fuel economy values for each model type.

(i) Calculate the city, highway, and combined fuel economy values from the tests performed using gasoline or diesel test fuel.

(ii) Calculate the city, highway, and combined fuel economy values from the tests performed using alcohol or natural gas test fuel.

[71 FR 77945, Dec. 27, 2006]

**§ 600.208-12 Calculation of FTP-based and HFET-based fuel economy and carbon-related exhaust emission values for a model type.**

(a) Fuel economy and carbon-related exhaust emission values for a base level are calculated from vehicle configuration fuel economy and carbon-related exhaust emission values as determined in § 600.206-12(a), (b), or (c) as applicable, for low-altitude tests.

(1) If the Administrator determines that automobiles intended for sale in the State of California are likely to exhibit significant differences in fuel economy and carbon-related exhaust emission values from those intended for sale in other states, she will calculate fuel economy and carbon-related exhaust emission values for each base level for vehicles intended for sale in California and for each base level for vehicles intended for sale in the rest of the states.

(2) In order to highlight the fuel efficiency and carbon-related exhaust emission values of certain designs otherwise included within a model type, a manufacturer may wish to subdivide a model type into one or more additional model types. This is accomplished by separating subconfigurations from an existing base level and placing them into a new base level. The new base level is identical to the existing base level except that it shall be considered, for the purposes of this paragraph, as containing a new basic engine. The manufacturer will be permitted to designate such new basic engines and base level(s) if:

(i) Each additional model type resulting from division of another model type has a unique car line name and

that name appears on the label and on the vehicle bearing that label;

(ii) The subconfigurations included in the new base levels are not included in any other base level which differs only by basic engine (*i.e.*, they are not included in the calculation of the original base level fuel economy values); and

(iii) All subconfigurations within the new base level are represented by test data in accordance with § 600.010-08(c)(1)(ii).

(3) The manufacturer shall supply total model year sales projections for each car line/vehicle subconfiguration combination.

(i) Sales projections must be supplied separately for each car line-vehicle subconfiguration intended for sale in California and each car line/vehicle subconfiguration intended for sale in the rest of the states if required by the Administrator under paragraph (a)(1) of this section.

(ii) Manufacturers shall update sales projections at the time any model type value is calculated for a label value.

(iii) The provisions of paragraph (a)(3) of this section may be satisfied by providing an amended application for certification, as described in § 86.1844-01 of this chapter.

(4) Vehicle configuration fuel economy and carbon-related exhaust emission values, as determined in § 600.206-12 (a), (b) or (c), as applicable, are grouped according to base level.

(i) If only one vehicle configuration within a base level has been tested, the fuel economy and carbon-related exhaust emission values from that vehicle configuration will constitute the fuel economy and carbon-related exhaust emission values for that base level.

(ii) If more than one vehicle configuration within a base level has been tested, the vehicle configuration fuel economy values are harmonically averaged in proportion to the respective sales fraction (rounded to the nearest 0.0001) of each vehicle configuration and the resultant fuel economy value rounded to the nearest 0.0001 mile per gallon; and the vehicle configuration carbon-related exhaust emission values are arithmetically averaged in proportion to the respective sales fraction

(rounded to the nearest 0.0001) of each vehicle configuration and the resultant carbon-related exhaust emission value rounded to the nearest gram per mile.

(5) The procedure specified in paragraph (a)(1) through (4) of this section will be repeated for each base level, thus establishing city, highway, and combined fuel economy and carbon-related exhaust emission values for each base level.

(6) For the purposes of calculating a base level fuel economy or carbon-related exhaust emission value, if the only vehicle configuration(s) within the base level are vehicle configuration(s) which are intended for sale at high altitude, the Administrator may use fuel economy and carbon-related exhaust emission data from tests conducted on these vehicle configuration(s) at high altitude to calculate the fuel economy or carbon-related exhaust emission value for the base level.

(7) For alcohol dual fuel automobiles and natural gas dual fuel automobiles, the procedures of paragraphs (a)(1) through (6) of this section shall be used to calculate two separate sets of city, highway, and combined fuel economy and carbon-related exhaust emission values for each base level.

(i) Calculate the city, highway, and combined fuel economy and carbon-related exhaust emission values from the tests performed using gasoline or diesel test fuel.

(ii) Calculate the city, highway, and combined fuel economy and carbon-related exhaust emission values from the tests performed using alcohol or natural gas test fuel.

(b) For each model type, as determined by the Administrator, a city, highway, and combined fuel economy value and a carbon-related exhaust emission value will be calculated by using the projected sales and fuel economy and carbon-related exhaust emission values for each base level within the model type. Separate model type calculations will be done based on the vehicle configuration fuel economy and carbon-related exhaust emission values as determined in § 600.206-12 (a), (b) or (c), as applicable.

(1) If the Administrator determines that automobiles intended for sale in the State of California are likely to ex-

hibit significant differences in fuel economy and carbon-related exhaust emission values from those intended for sale in other states, she will calculate fuel economy and carbon-related exhaust emission values for each model type for vehicles intended for sale in California and for each model type for vehicles intended for sale in the rest of the states.

(2) The sales fraction for each base level is calculated by dividing the projected sales of the base level within the model type by the projected sales of the model type and rounding the quotient to the nearest 0.0001.

(3)(i) The FTP-based city fuel economy values of the model type (calculated to the nearest 0.0001 mpg) are determined by dividing one by a sum of terms, each of which corresponds to a base level and which is a fraction determined by dividing:

(A) The sales fraction of a base level; by

(B) The FTP-based city fuel economy value for the respective base level.

(ii) The FTP-based city carbon-related exhaust emission value of the model type (calculated to the nearest gram per mile) are determined by a sum of terms, each of which corresponds to a base level and which is a product determined by multiplying:

(A) The sales fraction of a base level; by

(B) The FTP-based city carbon-related exhaust emission value for the respective base level.

(4) The procedure specified in paragraph (b)(3) of this section is repeated in an analogous manner to determine the highway and combined fuel economy and carbon-related exhaust emission values for the model type.

(5) For alcohol dual fuel automobiles and natural gas dual fuel automobiles, the procedures of paragraphs (b)(1) through (4) of this section shall be used to calculate two separate sets of city, highway, and combined fuel economy values and two separate sets of city, highway, and combined carbon-related exhaust emission values for each model type.

(i) Calculate the city, highway, and combined fuel economy and carbon-related exhaust emission values from the

## Environmental Protection Agency

## § 600.209-08

tests performed using gasoline or diesel test fuel.

(ii) Calculate the city, highway, and combined fuel economy and carbon-related exhaust emission values from the tests performed using alcohol or natural gas test fuel.

[75 FR 25712, May 7, 2010]

EFFECTIVE DATE NOTE: At 75 FR 25712, May 7, 2010, § 600.208-12 was added, effective July 6, 2010.

### § 600.208-77 Sample calculation.

An example of the calculation required in this subpart appears in appendix III.

[41 FR 49761, Nov. 10, 1976]

### § 600.209-08 Calculation of vehicle-specific 5-cycle fuel economy values for a model type.

(a) *Base level.* 5-cycle fuel economy values for a base level are calculated from vehicle configuration 5-cycle fuel economy values as determined in § 600.207-08 for low-altitude tests.

(1) If the Administrator determines that automobiles intended for sale in the State of California are likely to exhibit significant differences in fuel economy from those intended for sale in other states, he will calculate fuel economy values for each base level for vehicles intended for sale in California and for each base level for vehicles intended for sale in the rest of the states.

(2) In order to highlight the fuel efficiency of certain designs otherwise included within a model type, a manufacturer may wish to subdivide a model type into one or more additional model types. This is accomplished by separating subconfigurations from an existing base level and placing them into a new base level. The new base level is identical to the existing base level except that it shall be considered, for the purposes of this paragraph, as containing a new basic engine. The manufacturer will be permitted to designate such new basic engines and base level(s) if:

(i) Each additional model type resulting from division of another model type has a unique car line name and that name appears on the label and on the vehicle bearing that label;

(ii) The subconfigurations included in the new base levels are not included in any other base level which differs only by basic engine (*i.e.*, they are not included in the calculation of the original base level fuel economy values); and

(iii) All subconfigurations within the new base level are represented by test data in accordance with § 600.010-08 (c)(ii).

(3) The manufacturer shall supply total model year sales projections for each car line/vehicle subconfiguration combination.

(i) Sales projections must be supplied separately for each car line-vehicle subconfiguration intended for sale in California and each car line/vehicle subconfiguration intended for sale in the rest of the states if required by the Administrator under paragraph (a)(1) of this section.

(ii) Manufacturers shall update sales projections at the time any model type value is calculated for a label value.

(iii) The provisions of this paragraph (a)(3) may be satisfied by providing an amended application for certification, as described in § 86.1844-01 of this chapter.

(4) 5-cycle vehicle configuration fuel economy values, as determined in § 600.207-08(a), (b), or (c), as applicable, are grouped according to base level.

(i) If only one vehicle configuration within a base level has been tested, the fuel economy value from that vehicle configuration constitutes the fuel economy for that base level.

(ii) If more than one vehicle configuration within a base level has been tested, the vehicle configuration fuel economy values are harmonically averaged in proportion to the respective sales fraction (rounded to the nearest 0.0001) of each vehicle configuration and the resultant fuel economy value rounded to the nearest 0.0001 mile per gallon.

(5) The procedure specified in § 600.209-08 (a) will be repeated for each base level, thus establishing city and highway fuel economy values for each base level.

(6) For the purposes of calculating a base level fuel economy value, if the only vehicle configuration(s) within