

§ 86.1821-01 Evaporative/refueling family determination.

(a) The gasoline-, methanol-, liquefied petroleum gas-, and natural gas-fueled light-duty vehicles and light-duty trucks described in a certification application will be divided into groupings which are expected to have similar evaporative and/or refueling emission characteristics (as applicable) throughout their useful life. Each group of vehicles with similar evaporative and/or refueling emission characteristics shall be defined as a separate evaporative/refueling family. Manufacturers shall use good engineering judgment to determine evaporative/refueling families.

(b) For gasoline-fueled or methanol-fueled light-duty vehicles and light-duty trucks to be classed in the same evaporative/refueling family, vehicles must be similar with respect to the items listed in paragraphs (b) (1) through (9) of this section.

(1) Type of vapor storage device (e.g., canister, air cleaner, crankcase).

(2) Basic canister design.

(i) Working capacity—grams adsorption within a 10 g. range.

(ii) System configuration—number of canisters and method of connection (i.e., series, parallel).

(iii) Canister geometry, construction and materials.

(3) Fuel system.

(4) Type of refueling emission control system—non-integrated or integrated with the evaporative control system. Further, if the system is non-integrated, whether or not any other evaporative emissions, e.g. diurnal or hot soak emissions, are captured in the same storage device as the refueling emissions.

(5) Fillpipe seal mechanism—mechanical, liquid trap, other.

(6) Vapor control system or method of controlling vapor flow through the vapor line to the canister (for example, type of valve, vapor control strategy).

(7) Purge control system (for example, type of valve, purge control strategy).

(8) Vapor hose material.

(9) Fuel tank material.

(c) Where vehicles are of a type which cannot be divided into evaporative/refueling families based on the

criteria listed above (such as non-canister control system approaches), the Administrator will establish families for those vehicles based upon the features most related to their evaporative and/or refueling emission characteristics.

(d) Manufacturers may further divide families determined under paragraph (b) of this section provided the Administrator is notified of any such changes prior to or concurrently with the submission of the application for certification (preferably at an annual preview meeting scheduled before the manufacturer begins certification activities for the model year).

(e) Manufacturers may petition the Administrator to combine vehicles into a single evaporative/refueling family which would normally not be eligible to be in a single evaporative/refueling family. The petition should provide:

(1) Substantial evidence that all the vehicles in the larger grouping will have the same degree of evaporative emission deterioration;

(2) Evidence of equivalent component durability over the vehicle's useful life; and

(3) Evidence that the groups will result in sufficient In-Use Verification Program data, appropriate tracking in use, and clear liability for the Agency's recall program.

§ 86.1822-01 Durability data vehicle selection.

(a) Within each durability group, the vehicle configuration which is expected to generate the highest level of exhaust emission deterioration on candidate vehicles in use, considering all constituents, shall be selected as the durability data vehicle configuration. The manufacturer will use good engineering judgment in making this selection.

(b) The manufacturer may select, using good engineering judgment, an equivalent or worst-case configuration in lieu of testing the vehicle selected in paragraph (a) of this section. Carryover data satisfying the provisions of § 86.1839-01 may also be used in lieu of testing the configuration selected in paragraph (a) of this section.