

§ 86.1822-01

40 CFR Ch. I (7-1-08 Edition)

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.

§ 86.1823-01 Durability demonstration procedures for exhaust emissions.

This section applies to light-duty vehicles, light-duty trucks, complete heavy-duty vehicles, and heavy-duty vehicles certified under the provisions of § 86.1801-01(c). Eligible small volume manufacturers or small volume test groups may optionally meet the requirements of §§ 86.1838-01 and 86.1826-01 in lieu of the requirements of this section. For model years 2001, 2002, and 2003 all manufacturers may elect to

meet the provisions of paragraph (c)(2) of this section in lieu of these requirements for light-duty vehicles or light-duty trucks.

(a) The manufacturer shall propose a durability program consisting of the elements discussed in paragraphs (a)(1) through (a)(3) of this section for advance approval by the Administrator. The durability process shall be designed to effectively predict the expected deterioration of candidate in-use vehicles over their full and intermediate useful life and shall be consistent with good engineering judgment. The Administrator will approve the program if he/she determines that it is reasonably expected to meet these design requirements.

(1) *Service accumulation method.* (i) Each durability program shall include a service accumulation method designed to effectively predict the deterioration of emissions in actual use over the full and intermediate useful life of candidate in-use vehicles.

(ii) Manufacturers may propose service accumulation methods based upon whole-vehicle full-mileage accumulation, whole vehicle accelerated mileage accumulation (e.g., where 40,000 miles on a severe mileage accumulation cycle is equivalent to 100,000 miles of normal in-use driving), bench aging of individual components or systems, or other approaches approved by the Administrator.

(A) For whole vehicle mileage accumulation programs, all emission control components and systems (including both hardware and software) must be installed and operating for the entire mileage accumulation period.

(B) Bench procedures shall simulate the aging of components or systems over the applicable useful life and shall simulate driving patterns and vehicle operational environments found in actual use. For this purpose, manufacturers may remove the emission-related components (and other components), in whole or in part, from the durability vehicle itself and deteriorate them independently. Vehicle testing for the purpose of determining deterioration factors may include the testing of durability vehicles that incorporate such bench-aged components.