

purge the refueling canister and a description of the procedures used to determine the number of equivalent UDDS cycles required to purge the refueling canisters, as determined from the fuel economy on the UDDS applicable to the test vehicle of that evaporative/refueling family and emission control system combination required to use a volume of fuel equal to 85% of fuel tank volume and from subpart B of this part.

(11) A description of all procedures, including any special procedures, used to comply with applicable test requirements of this subpart. Any special procedures used to establish durability data or emission deterioration factors required to be determined under §§ 86.1823-01, 86.1824-01 and 86.1825-01 and to conduct emission tests required to be performed on applicable emission data vehicles under § 86.1829-01 according to test procedures contained within this Title must also be included.

(12) A description of any unique procedures required to perform evaporative/refueling emission tests for all vehicles in each evaporative/refueling family and a description of the method used to develop those unique procedures, including canister working capacity, canister bed volume and fuel temperature profile for the running loss test.

(13) A description of the method to be used to decode vehicle identification numbers.

(14) For complete heavy-duty vehicles only, all hardware (including scan tools) and documentation necessary for EPA to read, interpret, and store (in engineering units if applicable) any information broadcast by an engine's on-board computers and electronic control modules which relates in anyway to emission control devices and auxiliary emission control devices, provided that such hardware, passwords, or documentation exists and is not otherwise commercially available. Passwords include any information necessary to enable generic scan tools or personal computers access to proprietary emission related information broadcast by an engine's on-board computer, if such passwords exist. This requirement includes access by EPA to any proprietary code information which may be

broadcast by an engine's on-board computer and electronic control modules. Information which is confidential business information must be marked as such. Engineering units refers to the ability to read, interpret, and store information in commonly understood engineering units, for example, engine speed in revolutions per minute or per second, injection timing parameters such as start of injection in degree's before top-dead center, fueling rates in cubic centimeters per stroke, vehicle speed in milers per hour or per kilometer.

(h) *In-use information requirements.* Manufacturers must submit the information required in § 86.1847-01.

(i) For exhaust emission testing for Tier 2 and interim non-Tier 2 vehicles, if approved by the Administrator in advance, manufacturers may submit exhaust emission test data generated under California test procedures to comply with any certification and in-use testing requirements under this subpart. The Administrator may require supporting information to establish that differences between California and Federal exhaust testing procedures and fuels will not produce significant differences in emission results. The Administrator may require that in-use testing be performed using Federal test fuels as specified in § 86.113-04(a)(1).

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§ 86.1845-01 Manufacturer in-use verification testing requirements.

(a) *General requirements.* A manufacturer light-duty vehicles, light-duty trucks, and complete heavy-duty vehicles shall test, or cause to have tested a specified number of light-duty vehicles, light-duty trucks, and complete heavy-duty vehicles. Such testing shall be conducted in accordance with the provisions of this section. For purposes of this section, the term vehicle shall include light-duty vehicles, light-duty trucks, and complete heavy-duty vehicles.

(b) *Low mileage testing.* [Reserved]

(c) *High-mileage testing—(1) Test groups.* Testing must be conducted for each test group.

Environmental Protection Agency

§ 86.1845-01

(2) *Vehicle mileage.* All test vehicles must have a minimum odometer mileage of 50,000 miles. At least one vehicle of each test group must have a minimum odometer mileage of 75% of useful life. See §86.1838-01(c)(2) for small volume manufacturer mileage requirements.

(3) *Number of test vehicles.* For each test group, the minimum number of vehicles that must be tested is specified in Table S01-06 and Table S01-07 of this paragraph (c)(3). After testing the minimum number of vehicles of a specific test group as specified in Table S01-06 and Table S01-07 of this paragraph (c)(3), a manufacturer may test additional vehicles upon request and approval by the Agency prior to the initiation of the additional testing. Any additional testing must be completed within the testing completion requirements shown in §86.1845-01(c)(4). The request and Agency approval (if any) shall apply to test groups on a case by case basis and apply only to testing under this paragraph. In addition to

the testing specified in Table S01-06 and Table S02-07 of this paragraph (c)(3), a manufacturer shall test one vehicle from each evaporative/refueling family for evaporative/refueling emissions. If a manufacturer believes it is unable to procure the test vehicles necessary to test the required number of vehicles in a test group as specified in Table S01-06 or Table S01-07 of this paragraph (c)(3), the manufacturer may request, subject to Administrator approval, a decreased sample size for that test group. The request shall include a description of the methods the manufacturer has used to procure the required number of vehicles. The approval of any such request, and the substitution of an alternative sample size requirement for the test group, will be based on a review of the procurement efforts made by the manufacturer to determine if all reasonable steps have been taken to procure the required test group size. Tables S01-06 and S01-07 follow:

TABLE S01-06—SMALL VOLUME MANUFACTURERS

49 and 50 State total sales ¹	1-5000	5001-14,999
High Mileage	Voluntary	2

¹ Manufacturer's total annual sales.

TABLE S01-07—LARGE VOLUME MANUFACTURERS

49 and 50 State annual sales ¹	1-5000 ²	5001-14,999 ²	1-50,000 ³	50,001-250,000	>250,000
High Mileage	Voluntary	2	4	5	6

¹ Sales by test group.

² Total annual production of groups eligible for testing under small volume sampling plan is capped at a maximum of 14,999 vehicle 49 or 50 state annual sales, or a maximum of 4,500 vehicle California only sales per model year, per large volume manufacturer.

³ Sampling plan applies to all of a manufacturer's remaining groups in this sales volume category when the maximum annual cap on total sales of small groups eligible for the small volume sampling plan is exceeded.

(4) *Initiation and completion of testing.* Testing of a test group (or evaporative refueling family) must commence within 4 years of the end of production of the test group (or evaporative/refueling family) and be completed within 5 years of the end of production of the test group (or evaporative/refueling family).

(5) *Emission testing.* (i) Each test vehicle shall be tested in accordance with the Federal Test Procedure and the US06 portion of the Supplemental Federal Test Procedure as described in

subpart B of this part, when such test vehicle is tested for compliance with applicable exhaust emission standards under this subpart. The US06 portion of the SFTP is not required to be performed on vehicles certified in accordance with the National LEV provisions of subpart R of this part. One test vehicle from each test group shall receive a Federal Test Procedure at high altitude. The test vehicle tested at high altitude is not required to be one of the

same test vehicles tested at low altitude. The test vehicle tested at high altitude is counted when determining the compliance with the requirements shown in Table S01-06 and Table S01-07 in paragraph (c)(3) of this section or the expanded sample size as provided for in this paragraph (c).

(ii) One test vehicle of each evaporative/refueling family shall be tested in accordance with the evaporative emission and refueling emission test procedures described in subpart B of this part, when such test vehicle is tested for compliance with applicable evaporative emission and refueling emission standards under this subpart. The test vehicles tested to fulfill the evaporative/refueling testing requirement of this paragraph (c)(5)(ii) will be counted when determining compliance with the minimum number of vehicles as specified in Table S01-06 and Table S01-07 in paragraph (c)(3) of this section for testing under paragraph (b)(5)(i) of this section only if the vehicle is also tested for exhaust emissions under the requirements of paragraph (b)(5)(i) of this section.

(6) Each test vehicle not rejected based on the criteria specified in Appendix II to this Subpart shall be tested in as-received condition.

(7) A manufacturer may conduct subsequent diagnostic maintenance and/or testing on any vehicle. Any such maintenance and/or testing shall be reported to the Agency as specified in § 86.1847-01.

(d) *Test vehicle procurement.* (1) Vehicles tested under this section shall be procured pursuant to the provisions of this paragraph (d). Vehicles shall be procured from the group of persons who own or lease vehicles registered in the procurement area.

(2) Vehicles shall be procured from persons which own or lease the vehicle, excluding commercial owners/lessees which are owned or controlled by the vehicle manufacturer, using the procedures described in Appendix I to this subpart. See § 86.1838(c)(2)(i) for small volume manufacturer requirements.

(3) *Geographical limitations.* (i) Test groups certified to 50-state standards: For low altitude testing no more than fifty percent of the test vehicles may be procured from California. The test

vehicles procured from the 49 state area must be procured from a location with a heating degree day 30 year annual average equal to or greater than 4000.

(ii) Test groups certified to 49 state standards: The test vehicles procured from the 49 state area must be procured from a location with a heating degree day 30 year annual average equal to or greater than 4000.

(iii) Vehicles procured for high altitude testing may be procured from any area located above 4000 feet.

(4) Vehicles may be rejected for procurement or testing under this section if they meet one or more of the rejection criteria in Appendix II of this subpart. Vehicles may also be rejected after testing under this section if they meet one or more of the rejection criteria in Appendix II of this subpart. Any vehicle rejected after testing must be replaced in order that the number of test vehicles in the sample comply with the sample size requirements of this section. Any post-test vehicle rejection and replacement procurement and testing must take place within the testing completion requirements of this section.

(e) *Testing facilities, procedures, quality assurance and quality control—(1) Lab equipment and procedural requirements.* The manufacturer shall utilize a test laboratory that is in accordance with the equipment and procedural requirements of subpart B to conduct the testing required by this section.

(2) The manufacturer shall notify the Agency of the name and location of the testing laboratory(s) to be used to conduct testing of vehicles of each model year conducted pursuant to this section. Such notification shall occur at least thirty working days prior to the initiation of testing of the vehicles of that model year.

(3) *Correlation.* The manufacturer shall document correlation traceable to the Environmental Protection Agency's National Vehicle and Fuel Emission Laboratory for its test laboratory utilized to conduct the testing required by this section.

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