

## § 1051.501

## 40 CFR Ch. I (7-1-04 Edition)

(2) The names of supervisors involved in each test.

(3) The name of anyone who authorizes adjusting, repairing, preparing, or modifying a test vehicle or engine and the names of all supervisors who oversee this work.

(4) If you shipped the vehicle or engine for testing, the date you shipped it, the associated storage or port facility, and the date the vehicle or engine arrived at the testing facility.

(5) Any records related to your production-line tests that are not in the written report.

(6) A brief description of any significant events during testing not otherwise described in the written report or in this section.

(7) Any information specified in § 1051.345 that you do not include in your written reports.

(e) If we ask, you must give us projected or actual production figures for an engine family. We may ask you to divide your production figures by rated brake power, displacement, fuel type, or assembly plant (if you produce vehicles or engines at more than one plant).

(f) Keep a list of vehicle or engine identification numbers for all the vehicles or engines you produce under each certificate of conformity. Give us this list within 30 days if we ask for it.

(g) We may ask you to keep or send other information necessary to implement this subpart.

### Subpart E—Testing In-use Engines [Reserved]

### Subpart F—Test Procedures

#### § 1051.501 What procedures must I use to test my vehicles or engines?

This section describes test procedures that you use to show compliance with the requirements of this part. See § 1051.235 to determine when testing is required for certification. See subpart D of this part for the production-line testing requirements.

(a) *Snowmobiles.* For snowmobiles, use the equipment and procedures for spark-ignition engines in part 1065 of this chapter to show your snowmobiles meet the duty-cycle emission standards in § 1051.103. Measure HC, NO<sub>x</sub> (as

applicable), CO, and CO<sub>2</sub> emissions using the dilute sampling procedures in part 1065 of this chapter. For steady-state testing, you may use raw-gas sampling methods (such as those described in 40 CFR part 91), provided they have been shown to produce measurements equivalent to the dilute sampling methods specified in part 1065 of this chapter. Use the duty cycle in § 1051.505.

(b) *Motorcycles and ATVs.* For motorcycles and ATVs, use the equipment, procedures, and duty cycle in 40 CFR part 86, subpart F, to show your vehicles meet the exhaust emission standards in § 1051.105 or § 1051.107. Measure HC, NO<sub>x</sub>, CO, and CO<sub>2</sub>. If we allow you to certify ATVs based on engine testing, use the equipment, procedures, and duty cycle described or referenced in that section that allows engine testing. For motorcycles with engine displacement at or below 169 cc and all ATVs, use the driving schedule in paragraph (c) of Appendix I to 40 CFR part 86. For all other motorcycles use the driving schedule in paragraph (b) of Appendix I to part 86. With respect to vehicle-speed governors, test motorcycles and ATVs in their ungoverned configuration, unless we approve in advance testing in a governed configuration. We will only approve testing in a governed configuration if you can show that the governor is permanently installed on all production vehicles and is unlikely to be removed in-use. With respect to engine-speed governors, test motorcycles and ATVs in their governed configuration.

(c) *Permeation testing.* (1) Use the equipment and procedures specified in § 1051.515 to measure fuel tank permeation emissions.

(2) Prior to permeation testing of fuel hose, the hose must be preconditioned by filling the hose with the fuel specified in (d)(3) of this section, sealing the openings, and soaking the hose for 4 weeks at 23 °C±5 °C. To measure fuel-line permeation emissions, use the equipment and procedures specified in SAE J30 (incorporated by reference in § 1051.810). The measurements must be performed at 23 °C using the fuel specified in paragraph (d)(3) of this section.

(d) *Fuels.* Use the fuels meeting the following specifications:

(1) *Exhaust.* Use the fuels and lubricants specified in 40 CFR part 1065, subpart C, for all the testing and service accumulation we require in this part.

(2) *Fuel Tank Permeation.* (i) For the preconditioning soak described in §1051.515(a)(1) and fuel slosh durability test described in §1051.515(d)(3), use the fuel specified in Table 1 of §1065.210 of this chapter blended with 10 percent ethanol by volume. As an alternative, you may use Fuel CE10, which is Fuel C as specified in ASTM D 471-98 (incorporated by reference in §1051.810) blended with 10 percent ethanol by volume.

(ii) For the permeation measurement test in §1051.515(b), use the fuel specified in Table 1 of §1065.210 of this chapter. As an alternative, you may use the fuel specified in paragraph (d)(2)(i) of this section.

(3) *Fuel Hose Permeation.* Use the fuel specified in Table 1 of §1065.210 of this chapter blended with 10 percent ethanol by volume for permeation testing of fuel lines. As an alternative, you may use Fuel CE10, which is Fuel C as specified in ASTM D 471-98 (incorporated by reference in §1051.810) blended with 10 percent ethanol by volume.

(e) *Special procedures for engine testing.* (1) You may use special or alternate procedures, as described in §1065.10 of this chapter.

(2) We may reject data you generate using alternate procedures if later testing with the procedures in part 1065 of this chapter shows contradictory emission data.

(f) *Special procedures for vehicle testing.* (1) You may use special or alternate procedures, as described in paragraph (f)(3) of this section.

(2) We may reject data you generate using alternate procedures if later testing with the otherwise specified procedures shows contradictory emission data.

(3)(i) The test procedures specified for vehicle testing are intended to produce emission measurements equivalent to those that would result from measuring emissions during in-use operation using the same vehicle configuration. If good engineering judgment indicates that use of the procedures in this part for a vehicle would result in measurements that are not representative of in-use operation of that vehicle,

you must notify us. If we determine that using these procedures would result in measurements that are significantly unrepresentative and that changes to the procedures will result in more representative measurements that do not decrease the stringency of emission standards or other requirements, we will specify changes to the procedures. In your notification to us, you should recommend specific changes you think are necessary.

(ii) You may ask to use emission data collected using other test procedures, such as those of the California Air Resources Board or the International Organization for Standardization. We will allow this only if you show us that these data are equivalent to data collected using our test procedures.

(iii) You may ask to use alternate procedures that produce measurements equivalent to those obtained using the specified procedures. In this case, send us a written request showing that your alternate procedures are equivalent to the test procedures of this part. If you prove to us that the procedures are equivalent, we will allow you to use them. You may not use alternate procedures until we approve them.

(iv) You may ask to use special test procedures if your vehicle cannot be tested using the specified test procedures (for example, it is incapable of operating on the specified transient cycle). In this case, send us a written request showing that you cannot satisfactorily test your engines using the test procedures of this part. We will allow you to use special test procedures if we determine that they would produce emission measurements that are representative of those that would result from measuring emissions during in-use operation. You may not use special procedures until we approve them.

[67 FR 68347, Nov. 8, 2002, as amended at 69 FR 2442, Jan. 15, 2004]

#### **§ 1051.505 What special provisions apply for testing snowmobiles?**

Use the following special provisions for testing snowmobiles:

(a) Measure emissions by testing the engine on a dynamometer with the steady-state duty cycle described in the following Table: