

(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:

TABLE 1 OF § 1051.505—5-MODE DUTY CYCLE FOR SNOWMOBILES

Mode number:	Engine speed (percent of maximum test speed)	Torque (percent of maximum test torque at maximum test speed)	Minimum time in mode (minutes)	Weighting factors
1 .....	100	100	3.0	0.12
2 .....	85	51	3.0	0.27
3 .....	75	33	3.0	0.25
4 .....	65	19	3.0	0.31
5 .....	Idle	0	3.0	0.05

(b) During idle mode, operate the engine with the following parameters:

- (1) Hold the speed within your specifications.
- (2) Keep the throttle at the idle-stop position.
- (3) Keep engine torque under 5 percent of the peak torque value at maximum test speed.

(c) For the full-load operating mode, operate the engine at wide-open throttle.

(d) Ambient temperatures during testing must be between 20 °C and 30 °C (68 °F and 86 °F), or other representative test temperatures, as specified in paragraph (g) of this section.

(e) See part 1065 of this chapter for detailed specifications of tolerances and calculations.

(f) You may test snowmobiles at ambient temperatures below 20 °C or using intake air temperatures below 20 °C if you show that such testing complies with §1065.10(c)(1) of this chapter. You must get our approval before you begin the emission testing. For example, the following approach would be appropriate to show that such testing complies with §1065.10(c)(1) of this chapter:

(1) Using good engineering judgment, instrument a representative snowmobile built with a representative engine from the family being tested with an appropriate temperature measuring device located in the intake air plenum where fuel spitback is not likely to occur.

(2) Choose a time and location with the following weather conditions: wind-speed less than 10 knots, no falling pre-

cipitation, air temperature between -20 °C and 0 °C (-4 °F and 32 °F).

(3) Operate the snowmobile until its engine reaches a steady operating temperature.

(4) Operate the snowmobile on a level surface free of other vehicle traffic. Operate the snowmobile at each specified engine speed corresponding to each mode in the emissions test specific to the engine being tested. When readings are stable, record the temperature in the intake air plenum and the ambient temperature. Calculate the temperature difference between the air in the plenum and the ambient air for each mode.

(5) Calculate the nominal intake air test temperature for each test mode as -10 °C (14 °F) plus the temperature difference for the corresponding mode determined in (g)(4) of this section.

(6) Before the emissions test, select the appropriate carburetor jetting for -10 °C (14 °F) conditions according to the jet chart. For each mode, maintain the inlet air temperature within 5 °C of the corresponding modal temperature calculated in (g)(5) of this section.

(7) Adjust other operating parameters to be consistent with operation at -10 °C (14 °F). For example, this may require that you modify the engine cooling system used in the laboratory to make its performance representative of cold-temperature operation.