requirements. Unless we specify otherwise, store these records in any format and on any media and keep them readily available for one year after you send an associated application for certification, or one year after you generate the data if they do not support an application for certification. You must promptly send us organized, written records in English if we ask for them. We may review them at any time.

(b) The regulations in § 1051.255 and 40 CFR 1068.101 describe your obligation to report truthful and complete information and the consequences of failing to meet this obligation. This includes information not related to certification.

(c) Send all reports and requests for approval to the Designated Compliance Officer (*see* § 1051.801).

(d) Any written information we require you to send to or receive from another company is deemed to be a required record under this section. Such records are also deemed to be submissions to EPA. We may require you to send us these records whether or not you are a certificate holder.

[75 FR 23023, Apr. 30, 2010]

Subpart B—Emission Standards and Related Requirements

§ 1051.101 What emission standards and other requirements must my vehicles meet?

(a) You must show that your vehicles meet the following:

(1) The applicable exhaust emission standards in § 1051.103, § 1051.105, § 1051.107, or § 1051.145.

(i) For snowmobiles, see § 1051.103.

(ii) For off-highway motorcycles, see § 1051.105.

(iii) For all-terrain vehicles and offroad utility vehicles subject to this part, see § 1051.107 and § 1051.145.

(2) The evaporative emission standards in § 1051.110.

(3) All the requirements in § 1051.115.

(b) The certification regulations in subpart C of this part describe how you make this showing.

(c) These standards and requirements apply to all testing, including certification, production-line, and in-use testing.

(d) Other sections in this subpart describe other requirements for manufacturers such as labeling or warranty requirements.

(e) It is important that you read § 1051.145 to determine if there are other interim requirements or interim compliance options that apply for a limited time.

(f) As described in § 1051.1(a)(4), offroad utility vehicles that are subject to this part are subject to the same requirements as ATVs.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40487, July 13, 2005]

§ 1051.103 What are the exhaust emission standards for snowmobiles?

(a) Apply the exhaust emission standards in this section by model year. Measure emissions with the snowmobile test procedures in subpart F of this part.

(1) Follow Table 1 of this section for exhaust emission standards. You may generate or use emission credits under the averaging, banking, and trading (ABT) program for HC and CO emissions, as described in subpart H of this part. This requires that you specify a family emission limit for each pollutant you include in the ABT program for each engine family. These family emission limits serve as the emission standards for the engine family with respect to all required testing instead of the standards specified in this section. An engine family meets emission standards even if its family emission limit is higher than the standard, as long as you show that the whole averaging set of applicable engine families meets the applicable emission standards using emission credits, and the vehicles within the family meet the family emission limit. The phase-in values specify the percentage of your U.S.-directed production that must comply with the emission standards for those model years. Calculate this compliance percentage based on a simple count of your U.S.-directed production units within each certified engine family compared with a simple count of your total U.S.-directed production units. Table 1 also shows the maximum value you may specify for a family emission limit, as follows:

TABLE 1 OF § 1051.103—EXHAUST EMISSION STANDARDS FOR SNOWMOBILES (G/KW-HR)

Phase	Model year	Phase-in (percent)	Emission standards		Maximum allowable family emission limits	
			HC	CO	HC	CO
Phase 1	2006	50	100	275		
Phase 1	2007–2009	100	100	275		
Phase 2	2010 and 2011	100	75	275		
Phase 3	2012 and later	100	([1])	([1])	150	400

[1] See § 1051.103(a)(2).

(2) For Phase 3, the HC and CO standards are defined by a functional relationship. Choose your corporate average HC and CO standards for each year according to the following criteria:

(i) Prior to production, select the HC standard and CO standard (specified as g/kW-hr) so that the combined percent reduction from baseline emission levels is greater than or equal to 100 percent; that is, that the standards comply with the following equation:

$$\left(1-\frac{HC_{STD}}{150}\right)\times 100+\left(1-\frac{CO_{STD}}{400}\right)\times 100\geq 100$$

(ii) Your corporate average HC standard may not be higher than 75 g/kW-hr.

(iii) Your corporate average CO standard may not be higher than 275 g/kW-hr.

(iv) You may use the averaging and banking provisions of subpart H of this part to show compliance with these HC and CO standards at the end of the model year under paragraph (a)(2)(i) of this section. You must comply with these final corporate average emission standards.

(b) The exhaust emission standards in this section apply for snowmobiles using the fuel type on which they are designed to operate. You must meet the numerical emission standards for hydrocarbons in this section based on the following types of hydrocarbon emissions for snowmobiles powered by the following fuels:

(1) Natural gas-fueled snowmobiles: NMHC emissions.

(2) Alcohol-fueled snowmobiles: THCE emissions.

(3) Other snowmobiles: THC emissions.

(c) Your snowmobiles must meet emission standards over their full useful life. The minimum useful life is 8,000 kilometers, 400 hours of engine operation, or five calendar years, whichever comes first. You must specify a longer useful life in terms of kilometers and hours for the engine family if the average service life of your vehicles is longer than the minimum value, as follows:

(1) Except as allowed by paragraph (c)(2) of this section, your useful life (in kilometers and hours) may not be less than either of the following:

(i) Your projected operating life from advertisements or other marketing materials for any vehicles in the engine family.

(ii) Your basic mechanical warranty for any engines in the engine family.

(2) Your useful life may be based on the average service life of vehicles in the engine family if you show that the average service life is less than the useful life required by paragraph (c)(1) of this section, but more than the minimum useful life (8,000 kilometers or 400 hours of engine operation). In determining the actual average service life of vehicles in an engine family, we will consider all available information and

analyses. Survey data is allowed but not required to make this showing.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40487, July 13, 2005; 73 FR 35951, June 25, 2008; 73 FR 59246, Oct. 8, 2008]

§ 1051.105 What are the exhaust emission standards for off-highway motorcycles?

(a) Apply the exhaust emission standards in this section by model year. Measure emissions with the off-highway motorcycle test procedures in subpart F of this part.

(1) Follow Table 1 of this section for exhaust emission standards. You may generate or use emission credits under the averaging, banking, and trading (ABT) program for $HC+NO_X$ and CO emissions, as described in subpart H of this part. This requires that you specify a family emission limit for each pollutant you include in the ABT program for each engine family. These family emission limits serve as the emission standards for the engine family with respect to all required testing instead of the standards specified in this section. An engine family meets emission standards even if its family emission limit is higher than the standard, as long as you show that the whole averaging set of applicable engine families meets the applicable emission standards using emission credits, and the vehicles within the family meet the family emission limit. The phase-in values specify the percentage of your U.S.-directed production that must comply with the emission standards for those model years. Calculate this compliance percentage based on a simple count of your U.S.-directed production units within each certified engine family compared with a simple count of your total U.S.-directed production units. Table 1 follows:

TABLE 1 OF § 1051.105—EXHAUST EMISSION STANDARDS FOR OFF-HIGHWAY MOTORCYCLES (G/KM)

Phase	Model year	Phase-in (percent)	Emission standards		Maximum allowable family emission limits	
			$HC+NO_X$	CO	$HC+NO_X$	CO
Phase 1	2006	50	2.0	25	20.0	50
	2007 and later	100	2.0	25	20.0	50

(2) For model years 2007 and later you may choose to certify all of your off-highway motorcycles to an $HC+NO_X$ standard of 4.0 g/km and a CO standard of 35 g/km, instead of the standards listed in paragraph (a)(1) of this section. To certify to the standards in this paragraph (a)(2), you must comply with the following provisions:

(i) You may not request an exemption for any off-highway motorcycles under § 1051.620

(ii) At least ten percent of your off-highway motorcycles for the model year must have four of the following features:

(A) The absence of a headlight or other lights.

(B) The absence of a spark arrestor.

(C) The absence of manufacturer warranty.

(D) Suspension travel greater than 10 inches.

(E) Engine displacement greater than 50 cc.

(F) The absence of a functional seat.

(iii) You may use the averaging and banking provisions of subpart H of this part to show compliance with this $HC+NO_X$ standard, but not this CO standard. If you use the averaging or banking provisions to show compliance, your FEL for $HC+NO_X$ may not exceed 8.0 g/km for any engine family. You may not use the trading provisions of subpart H of this part.

(3) You may certify off-highway motorcycles with engines that have total displacement of 70 cc or less to the exhaust emission standards in § 1051.615 instead of certifying them to the exhaust emission standards of this section. Count all such vehicles in the phase-in (percent) requirements of this section.

(b) The exhaust emission standards in this section apply for off-highway motorcycles using the fuel type on which they are designed to operate.

You must meet the numerical emission standards for hydrocarbons in this section based on the following types of hydrocarbon emissions for off-highway motorcycles powered by the following fuels:

(1) Natural gas-fueled off-highway motorcycles: NMHC emissions.

(2) Alcohol-fueled off-highway motorcycles: THCE emissions.

(3) Other off-highway motorcycles: THC emissions.

(c) Your off-highway motorcycles must meet emission standards over their full useful life. For off-highway motorcycles with engines that have total displacement greater than 70 cc, the minimum useful life is 10,000 kilometers or five years, whichever comes first. For off-highway motorcycles with engines that have total displacement of 70 cc or less, the minimum useful life is 5,000 kilometers or five years, whichever comes first. You must specify a longer useful life for the engine family in terms of kilometers if the average service life of your vehicles is longer than the minimum value, as follows:

(1) Except as allowed by paragraph (c)(2) of this section, your useful life (in kilometers) may not be less than either of the following:

(i) Your projected operating life from advertisements or other marketing materials for any vehicles in the engine family.

(ii) Your basic mechanical warranty for any engines in the engine family.

(2) Your useful life may be based on the average service life of vehicles in the engine family if you show that the average service life is less than the useful life required by paragraph (c)(1) of this section, but more than the minimum useful life (10,000 kilometers). In determining the actual average service life of vehicles in an engine family, we will consider all available information and analyses. Survey data is allowed but not required to make this showing.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40487, July 13, 2005; 73 FR 59246, Oct. 8, 2008]

§ 1051.107 What are the exhaust emission standards for all-terrain vehicles (ATVs) and offroad utility vehicles?

This section specifies the exhaust emission standards that apply to ATVs. As is described in § 1051.1(a)(4), offroad utility vehicles that are subject to this part are subject to these same standards.

(a) Apply the exhaust emission standards in this section by model year. Measure emissions with the ATV test procedures in subpart F of this part.

(1) Follow Table 1 of this section for exhaust emission standards. You may generate or use emission credits under the averaging, banking, and trading (ABT) program for $HC+NO_X$ emissions, as described in subpart H of this part. This requires that you specify a family emission limit for each pollutant you include in the ABT program for each engine family. These family emission limits serve as the emission standards for the engine family with respect to all required testing instead of the standards specified in this section. An engine family meets emission standards even if its family emission limit is higher than the standard, as long as you show that the whole averaging set of applicable engine families meets the applicable emission standards using emission credits, and the vehicles within the family meet the family emission limit. Table 1 also shows the maximum value you may specify for a family emission limit. The phase-in values in the table specify the percentage of your total U.S.-directed production that must comply with the emission standards for those model years.

Calculate this compliance percentage based on a simple count of your U.S.-directed production units within each certified engine family compared with a simple count of your total U.S.-directed production units. This applies to your total production of ATVs and offroad utility vehicles that are subject to the standards of this part; including both ATVs and offroad utility vehicles subject to the standards of this section and ATVs and offroad utility vehicles certified to the standards of other sections in this part 1051 (such as § 1051.615, but not including vehicles certified under other parts in this

chapter (such as 40 CFR part 90). Table 1 follows:

TABLE 1 OF § 1051.107—EXHAUST EMISSION STANDARDS FOR ATVS (G/KM)

Phase	Model year	Phase-in (percent)	Emission standards		Maximum allowable family emission limits	
			$HC+NO_X$	CO	$HC+NO_X$	CO
Phase 1	2006	50	1.5	35	20.0	
	2007 and later	100	1.5	35	20.0	

(2) You may certify ATVs with engines that have total displacement of less than 100 cc to the exhaust emission standards in § 1051.615 instead of certifying them to the exhaust emission standards of this section. Count all such vehicles in the phase-in (percent) requirements of this section.

(b) The exhaust emission standards in this section apply for ATVs using the fuel type on which they are designed to operate. You must meet the numerical emission standards for hydrocarbons in this section based on the following types of hydrocarbon emissions for ATVs powered by the following fuels:

(1) Natural gas-fueled ATVs: NMHC emissions.

(2) Alcohol-fueled ATVs: THCE emissions.

(3) Other ATVs: THC emissions.

(c) Your ATVs must meet emission standards over their full useful life. For ATVs with engines that have total displacement of 100 cc or greater, the minimum useful life is 10,000 kilometers, 1000 hours of engine operation, or five years, whichever comes first. For ATVs with engines that have total displacement of less than 100 cc, the minimum useful life is 5,000 kilometers, 500 hours of engine operation, or five years, whichever comes first. You must specify a longer useful life for the engine family in terms of kilometers and hours if the average service life of your vehicles is longer than the minimum value, as follows:

(1) Except as allowed by paragraph (c)(2) of this section, your useful life (in kilometers) may not be less than either of the following:

(i) Your projected operating life from advertisements or other marketing materials for any vehicles in the engine family.

(ii) Your basic mechanical warranty for any engines in the engine family.

(2) Your useful life may be based on the average service life of vehicles in the engine family if you show that the average service life is less than the useful life required by paragraph (c)(1) of this section, but more than the minimum useful life (10,000 kilometers or 1,000 hours of engine operation). In determining the actual average service life of vehicles in an engine family, we will consider all available information and analyses. Survey data is allowed but not required to make this showing.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40488, July 13, 2005; 73 FR 59246, Oct. 8, 2008]

§ 1051.110 What evaporative emission standards must my vehicles meet?

Your new vehicles that run on a volatile liquid fuel (such as gasoline) must meet the emission standards of this section over their full useful life. Note that § 1051.245 allows you to use design-based certification instead of generating new emission data.

(a) Beginning with the 2008 model year, permeation emissions from your vehicle's fuel tank(s) may not exceed 1.5 grams per square-meter per day when measured with the test procedures for tank permeation in subpart F of this part. You may generate or use emission credits under the averaging, banking, and trading (ABT) program, as described in subpart H of this part.

(b) Beginning with the 2008 model year, permeation emissions from your vehicle's fuel lines may not exceed 15 grams per square-meter per day when measured with the test procedures for fuel-line permeation in subpart F of this part. Use the inside diameter of the hose to determine the surface area of the hose.

(c) You may certify your fuel tanks and fuel lines under the provisions of 40 CFR part 1060. You may also specify in your application for certification that you are using components that have been certified by the component manufacturer.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40488, July 13, 2005; 73 FR 59246, Oct. 8, 2008]

§ 1051.115 What other requirements apply?

Vehicles that are required to meet the emission standards of this part must meet the following requirements:

(a) *Closed crankcase*. Crankcase emissions may not be discharged directly into the ambient atmosphere from any vehicle throughout its useful life.

(b) [Reserved]

(c) *Adjustable parameters*. Vehicles that have adjustable parameters must meet all the requirements of this part for any adjustment in the physically adjustable range. Note that parameters that control the air-fuel ratio may be treated separately under paragraph (d) of this section. An operating parameter is not considered adjustable if you permanently seal it or if it is not normally accessible using ordinary tools. We may require that you set adjustable parameters to any specification within the adjustable range during any testing, including certification testing, production-line testing, or in-use testing.

(d) *Other adjustments*. This provision applies if an experienced mechanic can change your engine's air-fuel ratio in less than one hour with a few parts whose total cost is under $50 (in 2001 dollars). Examples include carburetor jets and needles. In the case of carburetor jets and needles, your vehicle must meet all the requirements of this part for any air-fuel ratio within the adjustable range described in paragraph (d)(1) of this section.

(1) In your application for certification, specify the adjustable range of air-fuel ratios you expect to occur in use. You may specify it in terms of engine parts (such as the carburetor jet size and needle configuration as a function of atmospheric conditions).

(2) This adjustable range (specified in paragraph (d)(1) of this section) must include all air-fuel ratios between the lean limit and the rich limit, unless you can show that some air-fuel ratios will not occur in use.

(i) The lean limit is the air-fuel ratio that produces the highest engine power output (averaged over the test cycle).

(ii) The rich limit is the richest of the following air-fuel ratios:

(A) The air-fuel ratio that would result from operating the vehicle as you produce it at the specified test conditions. This paragraph (d)(2)(ii)(A) does not apply if you produce the vehicle with an unjetted carburetor so that the vehicle must be jetted by the dealer or operator.

(B) The air-fuel ratio of the engine when you do durability testing.

(C) The richest air-fuel ratio that you recommend to your customers for the applicable ambient conditions.

(3) If the air-fuel ratio of your vehicle is adjusted primarily by changing the carburetor jet size and/or needle configuration, you may submit your recommended jetting chart instead of the range of air-fuel ratios required by paragraph (d)(1) of this section if the following criteria are met:

(i) Good engineering judgment indicates that vehicle operators would not have an incentive to operate the vehicle with richer air-fuel ratios than recommended.

(ii) The chart is based on use of a fuel that is equivalent to the specified test fuel(s). As an alternative you may submit a chart based on a representative in-use fuel if you also provide instructions for converting the chart to be applicable to the test fuel(s).

(iii) The chart is specified in units that are adequate to make it practical for an operator to keep the vehicle properly jetted during typical use. For example, charts that specify jet sizes based on increments of temperature smaller than 20 °F (11.1 °C) or increments of altitude less than 2000 feet would not meet this criteria. Temperature ranges must overlap by at least 5 °F (2.8 °C).

(iv) You follow the jetting chart for durability testing.

(v) You do not produce your vehicles with jetting richer than the jetting chart recommendation for the intended vehicle use.

(vi) The adjustable range of carburetor screws, such as air screw, fuel screw, and idle-speed screw must be defined by stops, limits, or specification on the jetting chart consistent with the requirements for specifying jet sizes and needle configuration in this section.

(4) We may require you to adjust the engine to any specification within the adjustable range during certification testing, production-line testing, selective enforcement auditing, or in-use testing. If we allow you to submit your recommended jetting chart instead of the range of air-fuel ratios required by paragraph (d)(1) of this section, adjust the engine to the richest specification within the jetting chart for the test conditions, unless we specify a leaner setting. We may not specify a setting leaner than that described in paragraph (d)(2)(i) of this section.

(e) *Prohibited controls.* You may not design your engines with emission-control devices, systems, or elements of design that cause or contribute to an unreasonable risk to public health, welfare, or safety while operating. For example, this would apply if the engine emits a noxious or toxic substance it would otherwise not emit that contributes to such an unreasonable risk.

(f) *Defeat devices.* You may not equip your vehicles with a defeat device. A defeat device is an auxiliary emission-control device that reduces the effectiveness of emission controls under conditions that the vehicle may reasonably be expected to encounter during normal operation and use. This does not apply to auxiliary emission-control devices you identify in your certification application if any of the following is true:

(1) The conditions of concern were substantially included in the applicable test procedures described in subpart F of this part.

(2) You show your design is necessary to prevent vehicle damage or accidents.

(3) The reduced effectiveness applies only to starting the engine.

(g) *Noise standards.* There are no noise standards specified in this part 1051. See 40 CFR Chapter I, Subchapter G, to determine if your vehicle must meet noise emission standards under another part of our regulations.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40488, July 13, 2005; 73 FR 59246, Oct. 8, 2008]

§ 1051.120 What emission-related warranty requirements apply to me?

(a) *General requirements.* You must warrant to the ultimate purchaser and each subsequent purchaser that the new engine, including all parts of its emission-control system, meets two conditions:

(1) It is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of this part.

(2) It is free from defects in materials and workmanship that may keep it from meeting these requirements.

(b) *Warranty period.* Your emission-related warranty must be valid for at least 50 percent of the vehicle's minimum useful life in kilometers or hours of engine operation (where applicable), or at least 30 months, whichever comes first. You may offer an emission-related warranty more generous than we require. The emission-related warranty for the engine may not be shorter than any published warranty you offer without charge for the engine. Similarly, the emission-related warranty for any component may not be shorter than any published warranty you offer without charge for that component. If a vehicle has no odometer, base warranty periods in this paragraph (b) only on the vehicle's age (in years). The warranty period begins when the engine is placed into service.

(c) *Components covered.* The emission-related warranty covers all components whose failure would increase an engine's emissions of any regulated pollutant, including components listed in 40 CFR part 1068, Appendix I, and components from any other system you develop to control emissions. The emission-related warranty covers these components even if another company produces the component. Your emission-related warranty does not cover components whose failure would not increase an engine's emissions of any regulated pollutant.

(d) *Limited applicability.* You may deny warranty claims under this section if the operator caused the problem through improper maintenance or use, as described in 40 CFR 1068.115. You may ask us to allow you to exclude from your emission-related warranty certified vehicles that have been used significantly for competition, especially certified motorcycles that meet at least four of the criteria in § 1051.620(b)(1).

(e) *Owners manual.* Describe in the owners manual the emission-related warranty provisions from this section that apply to the engine.

[70 FR 40489, July 13, 2005, as amended at 73 FR 59246, Oct. 8, 2008]

§ 1051.125 What maintenance instructions must I give to buyers?

Give the ultimate purchaser of each new vehicle written instructions for properly maintaining and using the vehicle, including the emission-control system. The maintenance instructions also apply to service accumulation on your emission-data vehicles, as described in § 1051.240, § 1051.245, and 40 CFR part 1065.

(a) *Critical emission-related maintenance.* Critical emission-related maintenance includes any adjustment, cleaning, repair, or replacement of critical emission-related components. This may also include additional emission-related maintenance that you determine is critical if we approve it in advance. You may schedule critical emission-related maintenance on these components if you meet the following conditions:

(1) You demonstrate that the maintenance is reasonably likely to be done at the recommended intervals on in-use vehicles. We will accept scheduled maintenance as reasonably likely to occur if you satisfy any of the following conditions:

(i) You present data showing that, if a lack of maintenance increases emissions, it also unacceptably degrades the vehicle's performance.

(ii) You present survey data showing that at least 80 percent of vehicles in the field get the maintenance you specify at the recommended intervals.

(iii) You provide the maintenance free of charge and clearly say so in your maintenance instructions.

(iv) You otherwise show us that the maintenance is reasonably likely to be done at the recommended intervals.

(2) You may not schedule critical emission-related maintenance within the minimum useful life period for aftertreatment devices, pulse-air valves, fuel injectors, oxygen sensors, electronic control units, superchargers, or turbochargers.

(3) You may ask us to approve a maintenance interval shorter than that specified in paragraph (a)(2) of this section. In your request you must describe the proposed maintenance step, recommend the maximum feasible interval for this maintenance, include your rationale with supporting evidence to support the need for the maintenance at the recommended interval, and demonstrate that the maintenance will be done at the recommended interval on in-use engines. In considering your request, we will evaluate the information you provide and any other available information to establish alternate specifications for maintenance intervals, if appropriate.

(b) *Recommended additional maintenance.* You may recommend any additional amount of maintenance on the components listed in paragraph (a) of this section, as long as you state clearly that these maintenance steps are not necessary to keep the emission-related warranty valid. If operators do the maintenance specified in paragraph (a) of this section, but not the recommended additional maintenance, this does not allow you to disqualify those vehicles from in-use testing or deny a warranty claim. Do not take these maintenance steps during service accumulation on your emission-data vehicles.

(c) *Special maintenance.* You may specify more frequent maintenance to address problems related to special situations, such as atypical engine operation. You must clearly state that this additional maintenance is associated with the special situation you are addressing. We may disapprove your maintenance instructions if we determine that you have specified special maintenance steps to address engine

operation that is not atypical, or that the maintenance is unlikely to occur in use. If we determine that certain maintenance items do not qualify as special maintenance under this paragraph (c), you may identify this as recommended additional maintenance under paragraph (b) of this section.

(d) *Noncritical emission-related maintenance.* Subject to the provisions of this paragraph (d), you may schedule any amount of emission-related inspection or maintenance that is not covered by paragraph (a) of this section (i.e., maintenance that is neither explicitly identified as critical emission-related maintenance, nor that we approve as critical emission-related maintenance). Noncritical emission-related maintenance generally includes changing spark plugs, re-seating valves, or any other emission-related maintenance on the components we specify in 40 CFR part 1068, Appendix I that is not covered in paragraph (a) of this section. You must state in the owner's manual that these steps are not necessary to keep the emission-related warranty valid. If operators fail to do this maintenance, this does not allow you to disqualify those vehicles from in-use testing or deny a warranty claim. Do not take these inspection or maintenance steps during service accumulation on your emission-data vehicles.

(e) *Maintenance that is not emission-related.* For maintenance unrelated to emission controls, you may schedule any amount of inspection or maintenance. You may also take these inspection or maintenance steps during service accumulation on your emission-data vehicles, as long as they are reasonable and technologically necessary. This might include adding engine oil, changing air, fuel, or oil filters, servicing engine-cooling systems, and adjusting idle speed, governor, engine bolt torque, valve lash, or injector lash, or adjusting chain tension, clutch position, or tire pressure. You may perform this nonemission-related maintenance on emission-data vehicles at the least frequent intervals that you recommend to the ultimate purchaser (but not the intervals recommended for severe service). You may also visually inspect test vehicles or engines, including emission-related components, as needed to ensure safe operation.

(f) *Source of parts and repairs.* State clearly on the first page of your written maintenance instructions that a repair shop or person of the owner's choosing may maintain, replace, or repair emission-control devices and systems. Your instructions may not require components or service identified by brand, trade, or corporate name. Also, do not directly or indirectly condition your warranty on a requirement that the vehicle be serviced by your franchised dealers or any other service establishments with which you have a commercial relationship. You may disregard the requirements in this paragraph (f) if you do one of two things:

(1) Provide a component or service without charge under the purchase agreement.

(2) Get us to waive this prohibition in the public's interest by convincing us the vehicle will work properly only with the identified component or service.

(g) *Payment for scheduled maintenance.* Owners are responsible for properly maintaining their vehicles. This generally includes paying for scheduled maintenance. However, manufacturers must pay for scheduled maintenance during the useful life if it meets all the following criteria:

(1) Each affected component was not in general use on similar vehicles before the 2006 model year.

(2) The primary function of each affected component is to reduce emissions.

(3) The cost of the scheduled maintenance is more than 2 percent of the price of the vehicle.

(4) Failure to perform the maintenance would not cause clear problems that would significantly degrade the vehicle's performance.

(h) *Owners manual.* Explain the owner's responsibility for proper maintenance in the owners manual.

[70 FR 40489, July 13, 2005, as amended at 73 FR 59246, Oct. 8, 2008; 75 FR 23023, Apr. 30, 2010]

§ 1051.130 What installation instructions must I give to vehicle manufacturers?

(a) If you sell an engine for someone else to install in a piece of nonroad equipment, give the engine installer instructions for installing it consistent with the requirements of this part. Include all information necessary to ensure that an engine will be installed in its certified configuration.

(b) Make sure these instructions have the following information:

(1) Include the heading: ''Emission-related installation instructions''.

(2) State: ''Failing to follow these instructions when installing a certified engine in a piece of nonroad equipment violates federal law (40 CFR 1068.105(b)), subject to fines or other penalties as described in the Clean Air Act.''.

(3) Describe the instructions needed to properly install the exhaust system and any other components. Include instructions consistent with the requirements of § 1051.205(r).

(4) Describe the steps needed to comply with the evaporative emission standards in § 1051.110.

(5) Describe any limits on the range of applications needed to ensure that the engine operates consistently with your application for certification. For example, if your engines are certified only to the snowmobile standards, tell vehicle manufacturers not to install the engines in other vehicles.

(6) Describe any other instructions to make sure the installed engine will operate according to design specifications in your application for certification. This may include, for example, instructions for installing aftertreatment devices when installing the engines.

(7) State: ''If you install the engine in a way that makes the engine's emission contro information label hard to read during normal engine maintenance, you must place a duplicate label on the vehicle, as described in 40 CFR 1068.105.''.

(c) You do not need installation instructions for engines you install in your own vehicles.

(d) Provide instructions in writing or in an equivalent format. For example, you may post instructions on a publicly available Web site for downloading or printing. If you do not provide the instructions in writing, explain in your application for certification how you will ensure that each installer is informed of the installation requirements.

[70 FR 40490, July 13, 2005]

§ 1051.135 How must I label and identify the vehicles I produce?

Each of your vehicles must have three labels: a vehicle identification number as described in paragraph (a) of this section, an emission control information label as described in paragraphs (b) through (e) of this section, and a consumer information label as described in § 1051.137.

(a) Assign each vehicle a unique identification number and permanently affix, engrave, or stamp it on the vehicle in a legible way.

(b) At the time of manufacture, affix a permanent and legible emission control information label identifying each vehicle. The label must be

(1) Attached so it is not removable without being destroyed or defaced.

(2) Secured to a part of the vehicle (or engine) needed for normal operation and not normally requiring replacement.

(3) Durable and readable for the vehicle's entire life.

(4) Written in English.

(c) The label must—

(1) Include the heading ''EMISSION CONTROL INFORMATION''.

(2) Include your full corporate name and trademark. You may identify another company and use its trademark instead of yours if you comply with the provisions of § 1051.645.

(3) Include EPA's standardized designation for engine families, as described in § 1051.230.

(4) State the engine's displacement (in liters). You may omit this from the emission control information label if the vehicle is permanently labeled with a unique model name that corresponds to a specific displacement. Also, you may omit displacement from the label if all the engines in the engine family have the same per-cylinder displacement and total displacement.

(5) State: ''THIS VEHICLE IS CERTIFIED TO OPERATE ON [specify operating fuel or fuels].''.

(6) State the date of manufacture [DAY (optional), MONTH, and YEAR]; however, you may omit this from the label if you stamp, engrave, or otherwise permanently identify it elsewhere on the vehicle or engine, in which case you must also describe in your application for certification where you will identify the date on the vehicle or engine.

(7) State the exhaust emission standards or FELs to which the vehicles are certified (in g/km or g/kW-hr). Also, state the FEL that applies for the fuel tank if it is different than the otherwise applicable standard.

(8) Identify the emission-control system. Use terms and abbreviations as described in 40 CFR 1068.45. You may omit this information from the label if there is not enough room for it and you put it in the owner's manual instead.

(9) List specifications and adjustments for engine tuneups; show the proper position for the transmission during tuneup and state which accessories should be operating.

(10) Identify the fuel type and any requirements for fuel and lubricants. You may omit this information from the label if there is not enough room for it and you put it in the owners manual instead.

(11) State the useful life for your engine family if it is different than the minimum value.

(12) State: ''THIS VEHICLE MEETS U.S. EPA REGULATIONS FOR [MODEL YEAR] [SNOWMOBILES or OFF–ROAD MOTORCYCLES or ATVs or OFFROAD UTILITY VEHICLES].''

(13) Identify evaporative emission controls as specified in 40 CFR 1060.135.

(d) You may add information to the emission control information label to identify other emission standards that the vehicle meets or does not meet (such as California standards). You may also add other information to ensure that the engine will be properly maintained and used.

(e) You may ask us to approve modified labeling requirements in this part 1051 if you show that it is necessary or appropriate. We will approve your request if your alternate label is consistent with the requirements of this part.

(f) [Reserved]

(g) Label every vehicle certified under this part with a removable hang-tag showing its emission characteristics relative to other models, as described in § 1051.137.

[70 FR 40490, July 13, 2005, as amended at 59246, Oct. 8, 2008; 75 FR 23024, Apr. 30, 2010]

§ 1051.137 What are the consumer labeling requirements?

Label every vehicle certified under this part with a removable hang-tag showing its emission characteristics relative to other models. The label should be attached securely to the vehicle before it is offered for sale in such a manner that it would not be accidentally removed prior to sale. Use the applicable equations of this section to determine the normalized emission rate (NER) from the FEL for your vehicle. If the vehicle is certified without a family emission limit that is different than the otherwise applicable standard, use the final deteriorated emission level. Round the resulting normalized emission rate for your vehicle to one decimal place. If the calculated NER value is less than zero, consider NER to be zero for that vehicle. We may specify a standardized format for labels. At a minimum, the tag should include: the manufacturer's name, vehicle model name, engine description (500 cc two-stroke with DFI), the NER, and a brief explanation of the scale (for example, note that 0 is the cleanest and 10 is the least clean).

(a) For snowmobiles, use the following equation:

$$NER = 16.61 \times \log (2.667 \times HC + CO) - 38.22$$

Where:

HC and CO are the cycle-weighted FELs (or emission rates) for hydrocarbons and carbon monoxide in g/kW-hr.

(b) For off-highway motorcycles, use the following equations:

(1) For off-highway motorcycles certified to the standards in § 1051.105, use one of the equations specified below.

(i) If the vehicle has HC + NO_X emissions less than or equal to 2.0 g/km, use the following equation:

$$NER = 2.500 \times (HC+NO_X)$$

Where:

$HC+NO_X$ is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/km.

(ii) If the vehicle has HC + NO_X emissions greater than 2.0 g/km, use the following equation:

$$NER = 5.000 \times \log(HC+NO_X) + 3.495$$

Where:

$HC+NO_X$ is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/km.

(2) For off-highway motorcycles certified to the standards in §1051.615(b), use the following equation:

$$NER = 8.782 \times \log(HC+NO_X) - 5.598$$

Where:

$HC+NO_X$ is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/kW-hr.

(c) For ATVs, use the following equations:

(1) For ATVs certified to the standards in §1051.107, use one of the equations specified below.

(i) If the vehicle has HC + NO_X emissions less than or equal to 1.5 g/km, use the following equation:

$$NER = 3.333 \times (HC+NO_X)$$

Where:

$HC+NO_X$ is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/km.

(ii) If the vehicle has HC + NO_X emissions greater than 1.5 g/km, use the following equation:

$$NER = 4.444 \times \log(HC+NO_X) + 4.217$$

Where:

$HC+NO_X$ is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/km.

(2) For ATVs certified to the standards in §1051.615(a), use the following equation:

$$NER = 8.782 \times \log(HC + NO_X) - 7.277$$

Where:

$HC+NO_X$ is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/kW-hr.

[70 FR 40491, July 13, 2005, as amended at 73 FR 59246, Oct. 8, 2008]

§1051.140 What is my vehicle's maximum engine power and displacement?

This section describes how to quantify your vehicle's maximum engine power and displacement for the purposes of this part.

(a) An engine configuration's maximum engine power is the maximum brake power point on the nominal power curve for the engine configuration, as defined in this section. Round the power value to the nearest 0.5 kilowatts. The nominal power curve of an engine configuration is the relationship between maximum available engine brake power and engine speed for an engine, using the mapping procedures of 40 CFR part 1065, based on the manufacturer's design and production specifications for the engine. This information may also be expressed by a torque curve that relates maximum available engine torque with engine speed.

(b) An engine configuration's displacement is the intended swept volume of the engine rounded to the nearest cubic centimeter. The swept volume of the engine is the product of the internal cross-section area of the cylinders, the stroke length, and the number of cylinders. For example, for a one-cylinder engine with a circular cylinder having an internal diameter of 6.00 cm and a 6.25 cm stroke length, the rounded displacement would be: $(1) \times (6.00/2)^2 \times (\pi) \times (6.25) = 177$ cc. Calculate the engine's intended swept volume from the design specifications for the cylinders using enough significant figures to allow determination of the displacement to the nearest 0.1 cc.

(c) The nominal power curve and intended swept volume must be within the range of the actual power curves and swept volumes of production engines considering normal production variability. If after production begins it is determined that either your nominal power curve or your intended swept volume does not represent production engines, we may require you to amend your application for certification under §1051.225.

[73 FR 59247, Oct. 8, 2008]

§ 1051.145 What provisions apply only for a limited time?

Apply the following provisions instead of others in this part for the periods and circumstances specified in this section.

(a) *Provisions for small-volume manufacturers.* Special provisions apply to you if you are a small-volume manufacturer subject to the requirements of this part. Contact us before 2006 if you intend to use these provisions.

(1) You may delay complying with otherwise applicable emission standards (and other requirements) for two model years.

(2) If you are a small-volume manufacturer of snowmobiles, only 50 percent of the models you produce (instead of all of the models you produce) must meet emission standards in the first two years they apply to you as a small-volume manufacturer, as described in paragraph (a)(1) of this section. For example, this alternate phase-in allowance would allow small-volume snowmobile manufacturers to comply with the Phase 1 exhaust standards by certifying 50 percent of their snowmobiles in 2008, 50 percent of their snowmobiles in 2009, and 100 percent in 2010.

(3) Your vehicles for model years before 2011 may be exempt from the exhaust standards of this part if you meet the following criteria:

(i) Produce your vehicles by installing engines covered by a valid certificate of conformity under 40 CFR part 90 that shows the engines meet standards for Class II engines for each engine's model year.

(ii) Do not change the engine in a way that we could reasonably expect to increase its exhaust emissions.

(iii) The engine meets all applicable requirements from 40 CFR part 90. This applies to engine manufacturers, vehicle manufacturers who use these engines, and all other persons as if these engines were not used in recreational vehicles.

(iv) Show that fewer than 50 percent of the engine family's total sales in the United States are used in recreational vehicles regulated under this part. This includes engines used in any application, without regard to which company manufactures the vehicle or equipment.

(v) If your engines do not meet the criteria listed in paragraph (a) of this section, they will be subject to the provisions of this part. Introducing these engines into commerce without a valid exemption or certificate of conformity violates the prohibitions in 40 CFR 1068.101.

(vi) Engines exempted under this paragraph (a)(3) are subject to all the requirements affecting engines under 40 CFR part 90. The requirements and restrictions of 40 CFR part 90 apply to anyone manufacturing these engines, anyone manufacturing equipment that uses these engines, and all other persons in the same manner as other engines subject to 40 CFR part 90.

(4) All vehicles produced under this paragraph (a) must be labeled according to our specifications. The label must include the following:

(i) The heading ''EMISSION CONTROL INFORMATION''.

(ii) Your full corporate name and trademark.

(iii) A description of the provisions under which this section applies to your vehicle .

(iv) Other information that we specify to you in writing.

(b) *Optional emission standards for ATVs.* To meet ATV standards for model years before 2014, you may apply the exhaust emission standards by model year in paragraph (b)(1) of this section while measuring emissions using the engine-based test procedures in 40 CFR part 1065 instead of the chassis-based test procedures in 40 CFR part 86. In model year 2014 you may apply this provision for exhaust emission engine families representing up to 50 percent of your U.S.-directed production volume. This provision is not available in the 2015 or later-model years. If you certify only one ATV exhaust emission engine family in the 2014 model year this provision is available for that family in the 2014 model year.

(1) Follow Table 1 of this section for exhaust emission standards, while meeting all the other requirements of § 1051.107. You may use emission credits to show compliance with these standards (see subpart H of this part). You

may not exchange emission credits with engine families meeting the standards in § 1051.107(a). You may also not exchange credits between engine families certified to the standards for engines above 225 cc and engine families certified to the standards for engines below 225 cc. The phase-in percentages in the table specify the percentage of your total U.S.-directed production that must comply with the emission standards for those model years (i.e., the percentage requirement does not apply separately for engine families above and below 225 cc). Table 1 follows:

TABLE 1 OF § 1051.145—OPTIONAL EXHAUST EMISSION STANDARDS FOR ATVS (g/kW-hr)

Engine displacement	Model year	Phase-in	Emission standards		Maximum allowable family emission limits
			$HC+NO_X$	CO	$HC+NO_X$
<225 cc	2006	50%	16.1	400	32.2
	2007 and later	100	16.1	400	32.2
≥225 cc	2006	50	13.4	400	26.8
	2007 and later	100	13.4	400	26.8

(2) Measure emissions by testing the engine on a dynamometer with the steady-state duty cycle described in Table 2 of this section.

(i) During idle mode, hold the speed within your specifications, keep the throttle fully closed, and keep engine torque under 5 percent of the peak torque value at maximum test speed.

(ii) For the full-load operating mode, operate the engine at its maximum fueling rate.

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

(iv) Table 2 follows:

TABLE 2 OF § 1051.145—6–MODE DUTY CYCLE FOR RECREATIONAL ENGINES

Mode No.	Engine speed (percent of maximum test speed)	Torque (percent of maximum torque at test speed)	Minimum time in mode (minutes)	Weighting factors
1	85	100	5.0	0.09
2	85	75	5.0	0.20
3	85	50	5.0	0.29
4	85	25	5.0	0.30
5	85	10	5.0	0.07
6	Idle	0	5.0	0.05

(3) For ATVs certified to the standards in this paragraph (b), use the following equations to determine the normalized emission rate required by § 1051.137:

(i) For engines at or above 225 cc, use the following equation:

$$NER = 9.898 \times \log (HC+NO_X) - 4.898$$

Where:

$HC + NO_X$ is the sum of the cycle-weighted emission rates for hydrocarbons and oxides of nitrogen in g/kW-hr.

(ii) For engines below 225 cc, use the following equation:

$$NER = 9.898 \times \log [(HC+NO_X) \times 0.83] - 4.898$$

Where:

$HC + NO_X$ is the sum of the cycle-weighted emission rates for hydrocarbons and oxides of nitrogen in g/kW-hr.

(c) [Reserved]

(d) *Phase-in flexibility*. For model years before 2014, if you make a good faith effort to comply, but fail to meet the sales requirements of this part during a phase-in period for new standards, or fail to meet the average emission standards, we may approve an alternative remedy to offset the emission reduction deficit using future emission

credits under this part. To apply for this, you must:

(1) Submit a plan during the certification process for the first model year of the phase-in showing how you project to meet the sales requirement of the phase-in.

(2) Notify us less than 30 days after you determine that you are likely to fail to comply with the sales requirement of the phase-in.

(3) Propose a remedy that will achieve equivalent or greater emission reductions compared to the specified phase-in requirements, and that will offset the deficit within one model year.

(e) *Raw sampling procedures.* Using good engineering judgment, you may use the alternate raw-sampling procedures instead of the procedures described in 40 CFR part 1065 for emission testing certain vehicles, as follows:

(1) *Snowmobile.* You may use the raw sampling procedures described in 40 CFR part 90 or 91 for snowmobiles subject to Phase 1 or Phase 2 standards.

(2) *ATV.* You may use the raw sampling procedures described in 40 CFR part 90 or 91 for ATVs certified using engine-based test procedures as specified in §1051.615 before the 2015 model year. You may use these raw sampling procedures for any ATVs certified using engine-based test procedures as specified in paragraph (b) of this section.

(f) *Early credits.* Snowmobile manufacturers may generate early emission credits in one of the following ways, by certifying some or all of their snowmobiles prior to 2006. Credit generating snowmobiles must meet all other applicable requirements of this part. No early credits may be generated by off-highway motorcycles or ATVs.

(1) You may certify one or more snowmobile engine families to FELs (HC and CO) below the numerical level of the Phase 2 standards prior to the date when compliance with the Phase 1 standard is otherwise required. Credits are calculated relative to the Phase 2 standards. Credits generated under this paragraph (f)(1) may be used at any time before 2012.

(2) You may certify a snowmobile engine family to FELs (HC and CO) below the numerical level of the Phase 1 standards prior to the date when compliance with the Phase 1 standard is otherwise required. Credits are calculated relative to the Phase 1 standards. Credits generated under this paragraph (f)(2) may only be used for compliance with the Phase 1 standards. You may generate credits under this paragraph (f)(2) without regard to whether the FELs are above or below the numerical level of the Phase 2 standards.

(g) *Pull-ahead option for permeation emissions.* Manufacturers choosing to comply with an early tank permeation standard of 3.0 g/m²/day prior to model year 2008 may be allowed to delay compliance with the 1.5 g/m²/day standard by earning credits, as follows:

(1) Calculate earned credits using the following equation:

$$\text{Credit} = (\text{Baseline emissions} - \text{Pull-ahead level}) \times \left[\Sigma_i(\text{Production})_i \times (\text{UL})_i\right]$$

Where:

Baseline emissions = the baseline emission rate, as determined in paragraph (g)(2) of this section.

Pull-ahead level = the permeation level to which you certify the tank, which must be at or below 3.0 g/m²/day.

$(\text{Production})_i$ = the annual production volume of vehicles in the engine family for model year ''i'' times the average internal surface area of the vehicles' fuel tanks.

$(\text{UL})_i$ = The useful life of the engine family in model year ''i''.

(2) Determine the baseline emission level for calculating credits using any of the following values:

(i) 7.6 g/m²/day.

(ii) The emission rate measured from your lowest-emitting, uncontrolled fuel tank from the current or previous model year using the procedures in §1051.515. For example, this would generally involve the fuel tank with the greatest wall thickness for a given material.

(iii) The emission rate measured from an uncontrolled fuel tank that is the same as or most similar to the model you have used during the current or previous model year. However, you may use this approach only if you use it to establish a baseline emission level for each unique tank model you produce using the procedures in §1051.515.

(3) Pull-ahead tanks under this option must be certified and must meet all applicable requirements other than those limited to compliance with the exhaust standards.

(4) You may use credits generated under this paragraph (g) as specified in subpart H of this part.

(h) *Deficit credits for permeation standards.* For 2008 through 2010 model years, you may have a negative balance of emission credits relative to the permeation emission standards at the end of each model year, subject to the following provisions:

(1) You must eliminate any credit deficit we allow under this paragraph (h) by the end of the 2011 model year. If you are unable to eliminate your credit deficit by the end of the 2011 model year, we may void the certificates for all families certified to FELs above the allowable average, for all affected model years.

(2) State in your application for certification a statement whether you will have a negative balance of permeation emission credits for that model year. If you project that you will have a negative balance, estimate the credit deficit for each affected model year and present a detailed plan to show where and when you will get credits to offset the deficit by the end of the 2011 model year.

(3) In your end-of-year report under § 1051.730, state whether your credit deficit is larger or smaller than you projected in your application for certification. If the deficit is larger than projected, include in your end-of-year report an update to your detailed plan to show how you will eliminate the credit deficit by the end of the 2011 model year.

(i) *Delayed compliance with labeling requirements.* Before the 2010 model year, you may omit the date of manufacture from the emission control information label if you keep those records and provide them to us upon request. Before the 2010 model year, you may also omit the label information specified for evaporative emission controls.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40491, July 13, 2005; 72 FR 20735, Apr. 26, 2007; 73 FR 59247, Oct. 8, 2008]

Subpart C—Certifying Engine Families

§ 1051.201 What are the general requirements for obtaining a certificate of conformity?

(a) You must send us a separate application for a certificate of conformity for each engine family. A certificate of conformity is valid starting with the indicated effective date, but it is not valid for any production after December 31 of the model year for which it is issued. No certificate will be issued after December 31 of the model year.

(b) The application must contain all the information required by this part and must not include false or incomplete statements or information (see § 1051.255).

(c) We may ask you to include less information than we specify in this subpart, as long as you maintain all the information required by § 1051.250.

(d) You must use good engineering judgment for all decisions related to your application (see 40 CFR 1068.5).

(e) An authorized representative of your company must approve and sign the application.

(f) See § 1051.255 for provisions describing how we will process your application.

(g) We may require you to deliver your test vehicles or engines to a facility we designate for our testing (see § 1051.235(c)).

(h) For vehicles that become new after being placed into service, such as vehicles converted to run on a different fuel, we may specify alternate certification provisions consistent with the intent of this part. *See* § 1051.650 and the definition of ''new'' in § 1051.801.

[70 FR 40492, July 13, 2005, as amended at 73 FR 59248, Oct. 8, 2008; 75 FR 23024, Apr. 30, 2010]

§ 1051.205 What must I include in my application?

This section specifies the information that must be in your application, unless we ask you to include less information under § 1051.201(c). We may require you to provide additional information to evaluate your application.

(a) Describe the engine family's specifications and other basic parameters