§ 1037.655 Post-useful life vehicle modifications.

This section specifies vehicle modifications that may occur after a vehicle reaches the end of its regulatory useful life. It does not apply with respect to modifications that occur within the useful life period. It also does not apply with respect to engine modifications or recalibrations. Note that many such modifications to the vehicle during the useful life and to the engine at any time are presumed to violate 42 U.S.C. 7522(a)(3)(A).

(a) *General.* Except as allowed by this section, it is prohibited for any person to remove or render inoperative any emission control device installed to comply with the requirements of this part 1037.

(b) *Allowable modifications.* You may modify a vehicle for the purpose of reducing emissions, provided you have a reasonable technical basis for knowing that such modification will not increase emissions of any other pollutant. Reasonable technical basis has the meaning given in 40 CFR 1068.30. This generally requires you to have information that would lead an engineer or other person familiar with engine and vehicle design and function to reasonably believe that the modifications will not increase emissions of any regulated pollutant.

(c) *Examples of allowable modifications.* The following are examples of allowable modifications:

(1) It is generally allowable to remove tractor roof fairings after the end of the vehicle's useful life if the vehicle will no longer be used primarily to pull box trailers.

(2) Other fairings may be removed after the end of the vehicle's useful life if the vehicle will no longer be used significantly on highways with vehicle speed of 55 miles per hour or higher.

(d) *Examples of prohibited modifications.* The following are examples of modifications that are not allowable:

(1) No person may disable a vehicle speed limiter prior to its expiration point.

(2) No person may remove aerodynamic fairings from tractors that are used primarily to pull box trailers on highways.

§ 1037.660 Automatic engine shutdown systems.

This section specifies requirements that apply for certified automatic engine shutdown systems (AES) that are modeled under § 1037.520. It does not apply for AES systems that you do not model under § 1037.520.

(a) *Minimum requirements.* Your AES system must meet all of the requirements of this paragraph (a) to be modeled under § 1037.520. The system must shut down the engine within 300 seconds when all the following conditions are met:

(1) The transmission is set in neutral with the parking brake engaged (or the transmission is set to park if so equipped).

(2) The operator has not reset the system timer within the 300 seconds by changing the position of the accelerator, brake, or clutch pedal; or by some other mechanism we approve.

(3) None of the override conditions of paragraph (b) of this section are met.

(b) *Override conditions.* The system may delay shutting the engine down while any of the conditions of this paragraph (b) apply. Engines equipped with auto restart may restart during override conditions. Note that these conditions allow the system to delay shutdown or restart, but do not allow it to reset the timer. The system may delay shutdown—

(1) While an exhaust emission control device is regenerating. The period considered to be regeneration for purposes of this allowance must be consistent with good engineering judgment and may differ in length from the period considered to be regeneration for other purposes. For example, in some cases it may be appropriate to include a cool down period for this purpose but not for infrequent regeneration adjustment factors.

(2) If necessary while servicing the vehicle, provided the deactivation of the AES system is accomplished using a diagnostic scan tool. The system must be automatically reactivated when the engine is shutdown for more than 60 minutes.

(3) If the vehicle's main battery state-of-charge is not sufficient to allow the main engine to be restarted.

(4) If the external ambient temperature reaches a level below which or above which the cabin temperature cannot be maintained within reasonable heat or cold exposure threshold limit values for the health and safety of the operator (not merely comfort).

(5) If the vehicle's engine coolant temperature is too low according to the manufacturer's engine protection guidance. This may also apply for fuel or oil temperatures. This allows the engine to continue operating until it reaches a predefined temperature at which the shutdown sequence of paragraph (a) of this section would resume.

(6) The system may delay shutdown while the vehicle's main engine is operating in power take-off (PTO) mode. For purposes of this paragraph (b)(6), an engine is considered to be in PTO mode when a switch or setting designating PTO mode is enabled.

(c) *Expiration of AES systems.* The AES system may include an expiration point (in miles) after which the AES system may be disabled. If your vehicle is equipped with an expiring AES system that expires before 1,259,000 miles adjust the model input as follows:

Input = 5 g CO_2/ton-mile × (miles at expiration/1,259,000 miles)

(d) *Adjustable parameters.* Provisions that apply generally with respect to adjustable parameters also apply to the AES system operating parameters, except the following are not considered to be adjustable parameters:

(1) Accelerator, brake, and clutch pedals, with respect to resetting the idle timer. Parameters associated with other timer reset mechanisms we approve are also not adjustable parameters.

(2) Bypass parameters allowed for vehicle service under paragraph (b)(2) of this section.

(3) Parameters that are adjustable only after the expiration point.

EFFECTIVE DATE NOTE: At 78 FR 36394, June 17, 2013, § 1037.660 was amended by revising the introductory text and paragraph (c), effective Aug. 16, 2013. For the convenience of the user, the revised text is set forth as follows:

§ 1037.660 Automatic engine shutdown systems.

This section specifies requirements that apply for certified automatic engine shutdown (AES) systems modeled under § 1037.520. It does not apply for AES systems you do not model under § 1037.520.

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(c) *Adjustments to AES systems.* (1) The AES system may include an expiration point (in miles) after which the AES system may be disabled. If your vehicle is equipped with an AES system that expires before 1,259,000 miles, adjust the model input as follows, rounded to the nearest 0.1 g/ton-mile: AES Input = 5 g CO_2/ton-mile × (miles at expiration/1,259,000 miles)

(2) For AES systems designed to limit idling to a specific number of hours less than 1,800 hours over any 12-month period, calculate an adjusted AES input using the following equation, rounded to the nearest 0.1 g/ton-mile: AES Input = 5 g CO_2/ton-mile × (1–(maximum allowable number of idling hours per year/1,800 hours)). This is an annual allowance that starts when the vehicle is new and resets every 12 months after that. Manufacturers may propose an alternative method based on operating hours or miles instead of years.

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Subpart H—Averaging, Banking, and Trading for Certification

§ 1037.701 General provisions.

(a) You may average, bank, and trade (ABT) emission credits for purposes of certification as described in this subpart and in subpart B of this part to show compliance with the standards of §§ 1037.105 and 1037.106. Participation in this program is voluntary.

(b) The definitions of Subpart I of this part apply to this subpart. The following definitions also apply:

(1) *Actual emission credits* means emission credits you have generated that we have verified by reviewing your final report.

(2) *Averaging set* means a set of vehicles in which emission credits may be exchanged. Credits generated by one vehicle may only be used by other vehicles in the same averaging set. Note that an averaging set may comprise more than one regulatory subcategory. See § 1037.740.

(3) *Broker* means any entity that facilitates a trade of emission credits between a buyer and seller.