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- (ii) The results of all emission tests shall be recorded and reported to the Administrator. These test results shall be rounded, in accordance with ASTM E 29-67, to the number of decimal places contained in the applicable emission standard expressed to one additional significant figure.
- (3) Whenever a manufacturer intends to operate and test a vehicle (or engine) which may be used for emission data, the manufacturer shall retain in its records all information concerning all emissions tests and maintenance, including vehicle (or engine) alterations to represent other vehicle (or engine) selections. This information shall be submitted, including the vehicle (or engine) description and specification information required by the Administrator, to the Administrator following the emission-data test.
 - (4)-(5) [Reserved]
- (6) Emission testing of any type with respect to any certification vehicle or engine other than that specified in this subpart is not allowed except as such testing may be specifically authorized by the Administrator.

[54 FR 14478, Apr. 11, 1989]

$\S 86.090-27$ Special test procedures.

- (a) The Administrator may, on the basis of written application by a manufacturer, prescribe test procedures, other than those set forth in this part, for any light-duty vehicle, light-duty truck, heavy-duty engine, or heavy-duty vehicle which the Administrator determines is not susceptible to satisfactory testing by the procedures set forth in this part.
- (b) If the manufacturer does not submit a written application for use of special test procedures but the Administrator determines that a light-duty vehicle, light-duty truck, heavy-duty engine, or heavy-duty vehicle is not susceptible to satisfactory testing by the procedures set forth in this part, the Administrator shall notify the manufacturer in writing and set forth the reasons for such rejection in accordance with the provisions of §86.090-

[54 FR 14481, Apr. 11, 1989]

§86.091-2 Definitions.

The definitions of §86.090-2 remain effective. The definitions listed in this section apply beginning with the 1991 model year.

Urban bus means a heavy heavy-duty diesel-powered passenger-carrying vehicle with a load capacity of fifteen or more passengers and intended primarily for intra-city operation, i.e., within the confines of a city or greater metropolitan area. Urban bus operation is characterized by short rides and frequent stops. To facilitate this type of operation, more than one set of quick-operating entrance and exit doors would normally be installed. Since fares are usually paid in cash or tokens rather than purchased in advance in the form of tickets, urban buses would normally have equipment installed for collection of fares. Urban buses are also typically characterized by the absence of equipment and facilities for long distance travel, e.g., rest rooms, large luggage compartments, and facilities for stowing carry-on luggage. The useful life for urban buses is the same as the useful life for other heavy heavy-duty diesel engines.

[55 FR 30619, July 26, 1990]

§86.091-7 Maintenance of records; submittal of information; right of entry.

- (a) The manufacturer of any new motor vehicle (or new motor vehicle engine) subject to any of the standards or procedures prescribed in this subpart shall establish, maintain and retain the following adequately organized and indexed records.
- (1) *General records.* (i) The records required to be maintained by this paragraph shall consist of:
- (A) Identification and description of all certification vehicles (or certification engines) for which testing is required under this subpart.
- (B) A description of all emission control systems which are installed on or incorporated in each certification vehicle (or certification engine).
- (C) A description of all procedures used to test each such certification vehicle (or certification engine).

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(ii) A properly filed application for certification, following the format prescribed by the US EPA for the appropriate model year, fulfills each of the requirements of this paragraph (a)(1).

(2) Individual records. (i) A brief history of each motor vehicle (or motor vehicle engine) used for certification

under this subpart including:

(A) In the case where a current production engine is modified for use in a certification vehicle (or as a certification engine), a description of the process by which the engine was selected and of the modifications made. In the case where the engine for a certification vehicle (or certification engine) is not derived from a current production engine, a general description of the buildup of the engine (e.g., experimental heads were cast and machined according to supplied drawings, etc.). In both cases above, a description of the origin and selection process for carburetor, distributor, fuel system components, fuel injection components, emission control system components, smoke exhaust emission control system components. and exhaust aftertreatment devices as applicable, shall be included. The required descriptions shall specify the steps taken to assure that the certification vehicle (or certification engine) with respect to its engine, drivetrain, fuel system, emission control system components, exhaust aftertreatment devices, smoke exhaust emission control system components, vehicle weight or any other devices or components, as applicable, that can reasonably be expected to influence exhaust or evaporative emissions, as applicable, will be representative of production vehicles (or engines) and that either all components and/or vehicles (or engine) construction processed, component inspection and selection techniques, and assembly techniques employed in constructing such vehicles (or engines) are reasonably likely to be implemented for production vehicles (or engines) or that they are as closely analogous as practicable to planned construction and assembly

(B) A complete record of all emission tests performed (except tests performed by EPA directly), including test results, the date and purpose of each test, and the number of miles accumulated on the vehicle (or the number of hours accumulated on the engine).

(C) The date of each mileage (or service) accumulation run, listing the mileage (or number of operating hours) accumulated.

(D) [Reserved]

(E) A record and description of all maintenance and other servicing performed, giving the date of the maintenance or service and the reason for it.

(F) A record and description of each test performed to diagnose engine or emission control system performance, giving the date and time of the test and the reason for it.

(G) [Reserved]

(H) A brief description of any significant events affecting the vehicle (or engine) during any time in the period covered by the history not described by an entry under one of the previous headings including such extraordinary events as vehicle accidents (or accidents involving the engine) or dynamometer runaway.

(ii) Each such history shall be started on the date that the first of any of the selection or buildup activities in paragraph (a)(2)(i)(A) of this section occurred with respect to the certification vehicle (or engine) changes or additional work is done on it, and shall be

kept in a designated location.

- (3) All records, other than routine emission test records, required to be maintained under this subpart shall be retained by the manufacturer for a period of six (6) years after issuance of all certificates of conformity to which they relate. Routine emission test records shall be retained by the manufacturer for a period of one (1) year after issuance of all certificates of conformity to which they relate. Records may be retained as hard copy or reduced to microfilm, ADP diskettes, etc., depending on the record retention procedures of the manufacturer; Provided, That in every case all the information contained in the hard copy shall be retained.
- (b) The manufacturer of any new motor vehicle (or new motor vehicle engine) subject to any of the standards prescribed in this subpart shall submit to the Administrator at the time of issuance by the manufacturer copies of

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all instructions or explanations regarding the use, repair, adjustment, maintenance, or testing of such vehicle (or engine) relevant to the control of crankcase, exhaust or evaporative emissions, as applicable, issued by the manufacturer for use by other manufacturers, assembly plants, distributors, dealers, and ultimate purchasers, lated into the English language need not be submitted unless specifically requested by the Administrator.

(c)(1) The manufacturer (or contractor for the manufacturer, if applicable) of any new vehicle or engine that is certified under averaging, trading, or banking programs (as applicable) shall establish, maintain, and retain the following adequately organized and indexed records for each such vehicle or heavy-duty engine produced:

(i) EPA engine family.

- (ii) Vehicle (or engine) identification number.
- (iii) Vehicle (or engine) model year and build date.
- (iv) BHP rating (heavy-duty engines only).
 - (v) Purchaser and destination.
 - (vi) Assembly plant.
- (2) The manufacturer (or contractor for the manufacturer, if applicable) of any new vehicle or engine family that is certified under averaging, trading, or banking programs (as applicable) shall establish, maintain, and retain the following adequately organized and indexed records for each such family:
 - (i) EPA engine family.
 - (ii) FEL.
- (iii) BHP conversion factor and the transient test BHP for each configuration tested (heavy-duty engines only).
 - (iv) Useful life.
- (v) Projected U.S. production volume for the model year.
- (vi) Actual U.S. production volume for the model year.
- (3) The manufacturer (or contractor for the manufacturer, if applicable) shall retain all records required to be maintained under this section for a period of six years from the due date for the end-of-model year averaging, trading, and banking reports. Records may be retained as hard copy or reduced to microfilm, ADP files, etc., depending on the manufacturer's record retention

procedure; *Provided*, That in every case all the information contained in the hard copy is retained.

- (4) Nothing in this section limits the Administrator's discretion in requiring the manufacturer to retain additional records or submit information not specifically required by this section.
- (5) Pursuant to a request made by the Administrator, the manufacturer shall submit to him the information that is required to be retained.
- (6) EPA may void *ab initio* a certificate of conformity for a vehicle or engine family for which the manufacturer fails to retain the records required in this section or to provide such information to the Administrator upon request.
- (7) Any engine family using NCPs must comply with the provisions established in the NCP program provided by 40 CFR part 86, subpart L.
- (8) Any manufacturer, producing an engine family participating in trading using reserved credits, shall maintain the following records on a quarterly basis for each engine family in the trading subclass:
 - (i) The engine family,
 - (ii) The averaging set,
- (iii) The actual quarterly and cumulative U.S. production volumes,
- (iv) The value required to calculate credits as given in §86.091-15,
- (v) The resulting type $[NO_X \text{ or particulate}]$ and number of credits generated/required,
- (vi) How and where credit surpluses are dispersed, and
- (vii) How and through what means credit deficits are met.
- (d)(1) Any manufacturer who has applied for certification of a new motor vehicle (or new motor vehicle engine) subject to certification test under this subpart shall admit or cause to be admitted any EPA Enforcement Officer or any EPA authorized representative during operating hours on presentation of credentials to any of the following:
- (i) Any facility where any such tests or any procedures or activities connected with such test are or were performed.
- (ii) Any facility where any new motor vehicle (or new motor vehicle engine) which is being, was, or is to be tested is present.

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- (iii) Any facility where any construction process or assembly process used in the modification or build up of such a vehicle (or engine) into a certification vehicle (or certification engine) is taking place or has taken place.
- (iv) Any facility where any record or other document relating to any of the above is located.
- (v) Any facility where any record or other document relating to the information specified in paragraph (c) of this section is located.
- (2) Upon admission to any facility referred to in paragraph (d)(1) of this section, any EPA Enforcement Officer or any EPA authorized representative shall be allowed:
- (i) To inspect and monitor any part or aspect of such procedures, activities, and testing facilities, including, but not limited to, monitoring vehicle (or engine) preconditioning, emissions tests and mileage (or service) accumulation, maintenance, and vehicle soak and storage procedures (or engine storage procedures), and to verify correlation or calibration of test equipment;
- (ii) To inspect and make copies of any such records, designs, or other documents, including those records specified in paragraph (c) of this section; and
- (iii) To inspect and/or photograph any part or aspect of any such certification vehicle (or certification engine) and any components to be used in the construction thereof.
- (3) In order to allow the Administrator to determine whether or not production motor vehicles (or production motor vehicle engines) conform to the conditions upon which a certificate of conformity has been issued, or conform in all material respects to the design specifications which applied to those vehicles (or engines) described in the application for certification for which a certificate of conformity has been issued to standards prescribed under section 202 of the Act, any manufacturer shall admit any EPA Enforcement Officer or any EPA authorized representative on presentation of credentials to both:
- (i) Any facility where any document, design, or procedure relating to the translation of the design and construction of engines and emission related

- components described in the application for certification or used for certification testing into production vehicles (or production engines) is located or carried on:
- (ii) Any facility where any motor vehicles (or motor vehicle engines) to be introduced into commerce are manufactured or assembled; and
- (iii) Any facility where records specified in paragraph (c) of this section are located.
- (4) On admission to any such facility referred to in paragraph (d)(4) of this section, any EPA Enforcement Officer or any EPA authorized representative shall be allowed:
- (i) To inspect and monitor any aspects of such manufacture or assembly and other procedures;
- (ii) To inspect and make copies of any such records, documents or designs;
- (iii) To inspect and photograph any part or aspect of any such new motor vehicles (or new motor vehicle engines) and any component used in the assembly thereof that are reasonably related to the purpose of his entry; and
- (iv) To inspect and make copies of any records and documents specified in paragraph (c) of this section.
- (5) Any EPA Enforcement Officer or EPA authorized representative shall be furnished by those in charge of a facility being inspected with such reasonable assistance as he may request to help him discharge any function listed in this paragraph. Each applicant for or recipient of certification is required to cause those in charge of a facility operated for its benefit to furnish such reasonable assistance without charge to EPA whether or not the applicant controls the facility.
- (6) The duty to admit or cause to be admitted any EPA Enforcement Officer or EPA authorized representative applies whether or not the applicant owns or controls the facility in question and applies both to domestic and to foreign manufacturers and facilities. EPA will not attempt to make any inspections which it has been informed that local law forbids. However, if local law makes it impossible to do what is necessary to insure the accuracy of data generated at a facility, no informed judgment that a vehicle or engine is

certifiable or is covered by a certificate can properly be based on those data. It is the responsibility of the manufacturer to locate its testing and manufacturing facilities in jurisdictions where this situation will not arise.

- (7) For purposes of this paragraph:
- (i) Presentation of credentials shall mean display of the document designating a person as an EPA Enforcement Officer or EPA authorized representative.
- (ii) Where vehicle, component, or engine storage areas or facilities are concerned, *operating hours* shall mean all times during which personnel other than custodial personnel are at work in the vicinity of the area or facility and have access to it.
- (iii) Where facilities or areas other than those covered by paragraph (d)(7)(ii) of this section are concerned, operating hours shall mean all times during which an assembly line is in operation or all times during which testing, maintenance, mileage (or service) accumulation, production or compilation of records, or any other procedure or activity related to certification testing, to translation of designs from the test stage to the production stage, or to vehicle (or engine) manufacture or assembly is being carried out in a facility.
- (iv) Reasonable assistance includes, but is not limited to, clerical, copying, interpretation and translation services, the making available on request of personnel of the facility being inspected during their working hours to inform the EPA Enforcement Officer or EPA authorized representative of how the facility operates and to answer his questions, and the performance on request of emissions tests on any vehicle (or engine) which is being, has been, or will be used for certification testing. Such tests shall be nondestructive, but may require appropriate mileage (or service) accumulation. A manufacturer may be compelled to cause the personal appearance of any employee at such a facility before an EPA Enforcement Officer or EPA authorized representative by written request for his appearance, signed by the Assistant Administrator for Air and Radiation, served on the manufacturer. Any such employee who has been instructed by

the manufacturer to appear will be entitled to be accompanied, represented, and advised by counsel.

- (v) Any entry without 24 hour prior written or oral notification to the affected manufacturer shall be authorized in writing by the Assistant Administrator for Air and Radiation.
- (8) EPA may void *ab initio* a certificate of conformity for vehicle or engine families introduced into commerce if the manufacturer (or contractor for the manufacturer, if applicable) fails to comply with any provision of this section.
- (e) EPA Enforcement Officers or EPA authorized representatives are authorized to seek a warrant or court order authorizing the EPA Enforcement Officers or EPA authorized representatives to conduct activities related to entry and access as authorized in this section, as appropriate, to execute the functions specified in this section. EPA Enforcement Officers or EPA authorized representatives may proceed ex parte to obtain a warrant whether or not the Enforcement Officers first attempted to seek permission of the manufacturer or the party in charge of the facilities in question to conduct activities related to entry and access as authorized in this section.
- (f) A manufacturer shall permit EPA Enforcement Officers or EPA authorized representatives who present a warrant or court order as described in paragraph (e) of this section to conduct activities related to entry and access as authorized in this section and as described in the warrant or court order. The manufacturer shall cause those in charge of its facility or facility operated for its benefit to permit EPA Enforcement Officers or EPA authorized representatives to conduct activities related to entry and access as authorized in this section pursuant to a warrant or court order whether or not the manufacturer controls the facility. In the absence of such a warrant or court order, EPA Enforcement Officers or EPA authorized representatives may conduct activities related to entry and access as authorized in this section only upon the consent of the manufacturer or the party in charge of the facilities in question.

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(g) It is not a violation of this part or the Clean Air Act for any person to refuse to permit EPA Enforcement Officers or EPA authorized representatives to conduct activities related to entry and access as authorized in this section without a warrant or court order.

[55 FR 30619, July 26, 1990]

§ 86.091-9 Emission standards for 1991 and later model year light-duty

(a)(1) The standards set forth in paragraphs (a) through (c) of this section shall apply to light-duty trucks sold for principal use at other than a designated high-altitude location. Exhaust emissions from 1991 and later model year light-duty trucks shall not exceed:

(i)(A) Hydrocarbons (for petroleumfueled Otto-cycle and diesel light-duty trucks). 0.80 gram per vehicle mile (0.50 gram per vehicle kilometer).

(B) Total Hydrocarbon Equivalent (for methanol-fueled Otto-cycle and diesel light-duty trucks). 0.80 gram per vehicle mile (0.50 gram per vehicle kilometer).

(ii) Carbon monoxide.

(A) 10 grams per vehicle mile (6.2 grams per vehicle kilometer).

(B) 0.50 percent of exhaust gas flow at curb idle (for Otto-cycle and methanol-fueled diesel light-duty trucks only).

(iii) Oxides of nitrogen.

(A) For light-duty trucks up to and including 3,750 lbs loaded vehicle weight, 1.2 grams per vehicle mile (0.75 gram per vehicle kilometer).

(B) For light-duty trucks greater loaded vehicle weight, 1.7 grams per vehicle mile (1.1 grams per vehicle kilometer).

(C) A manufacturer may elect to include any light-duty truck engine families in the NO_X averaging program, provided that it does not elect to pay an NCP for noncompliance with any emission standard applicable to that light-duty truck family. Trucks produced for sale in California or in designated high-altitude areas may be averaged only within each of those areas. Petroleum-fueled and methanolfueled engine families may not be averaged together. Otto-cycle and diesel engine families may not be averaged together. If the manufacturer elects to

participate in the NO_X averaging program, individual family NO_X emission limits may not exceed 2.3 grams per mile. If the manufacturer elects to average together NO_X emissions of light-duty trucks subject to the standards of paragraphs (a)(1)(iii)(A) and (a)(1)(iii)(B) of this section, its composite NO_X standard applies to the combined fleets of light-duty trucks up to and including, and over, 3750 lbs loaded vehicle weight included in the average, and is calculated as defined in $\S 86.088-2$.

(iv) Particulate (for diesel light-duty trucks only).

(A) For light-duty trucks up to and including 3,750 lbs loaded vehicle weight, 0.26 gram per vehicle mile (0.16 gram per vehicle kilometer).

(B) For light-duty trucks 3,751 lbs and greater loaded vehicle weight, 0.13 gram per vehicle mile (0.08 gram per

vehicle kilometer).

- (C) A manufacturer may elect to include any diesel light-duty truck engine families in the appropriate particulate averaging program (petroleum and methanol), provided that it does not elect to pay an NCP for noncompliance with any emission standard applicable to that light-duty truck family. Trucks produced for sale in California or in designated high-altitude areas may be averaged only within each of those areas, and light-duty trucks subject to the standard of paragraph (a)(1)(iv)(B) of this section may be averaged only with other light-duty trucks subject to the standard of paragraph (a)(1)(iv)(B) of this section. Averaging is not permitted between fuel types. If the manufacturer elects to average both light-duty trucks subject to standards of paragraphs (a)(1)(iv)(A) of this section and lightduty vehicles together in the appropriate particulate averaging program, its composite particulate standard applies to the combined set of light-duty vehicles and light-duty trucks that are included in the average and is calculated as defined in §86.088-2.
- (2) The standards set forth in paragraphs (a)(1)(i), (a)(1)(ii)(A), (a)(1)(iii), and (a)(1)(iv) of this section refer to the exhaust emitted over a driving schedule as set forth in subpart B of this part and measured and calculated in