

*d. Type of Model*

As described by Ermak (1989), transport and dispersion are calculated by solving the conservation equations for mass, species, energy, and momentum, with the cloud being modeled as either a steady-state plume, a transient puff, or a combination of both, depending on the duration of the release. In the steady-state plume mode, the crosswind-averaged conservation equations are solved and all variables depend only on the downwind distance. In the transient puff mode, the volume-averaged conservation equations are solved, and all variables depend only on the downwind travel time of the puff center of mass. Time is related to downwind distance by the height-averaged ambient wind speed. The basic conservation equations are solved via a numerical integration scheme in space and time.

*e. Pollutant Types*

Pollutants are assumed to be non-reactive and non-depositing dense gases or liquid-vapor mixtures (aerosols). Surface heat transfer and water vapor flux are also included in the model.

*f. Source-Receptor Relationships*

1. Only one source can be modeled at a time.

2. There is no limitation to the number of receptors; the downwind receptor distances are internally-calculated by the model. The SLAB calculation is carried out up to the user-specified maximum downwind distance.

3. The model contains submodels for the source characterization of evaporating pools, elevated vertical or horizontal jets, and instantaneous volume sources.

*g. Plume Behavior*

Plume trajectory and dispersion is based on crosswind-averaged mass, species, energy, and momentum balance equations. Surrounding terrain is assumed to be flat and of uniform surface roughness. No obstacle or building effects are taken into account.

*h. Horizontal Winds*

A power law approximation of the logarithmic velocity profile which accounts for stability and surface roughness is used.

*i. Vertical Wind Speed*

Not treated.

*j. Vertical Dispersion*

The crosswind dispersion parameters are calculated from formulas reported by Morgan et al. (1983), which are based

on experimental data from several sources. The formulas account for entrainment due to atmospheric turbulence, surface friction, thermal convection due to ground heating, differential motion between the air and the cloud, and damping due to stable density stratification within the cloud.

*k. Horizontal Dispersion*

The horizontal dispersion parameters are calculated from formulas similar to those described for vertical dispersion, also from the work of Morgan, et al. (1983).

*l. Chemical Transformation*

The thermodynamics of the mixing of the dense gas or aerosol with ambient air (including water vapor) are treated. The relationship between the vapor and liquid fractions within the cloud is treated using the local thermodynamic equilibrium approximation. Reactions of released chemicals with water or ambient air are not treated.

*m. Physical Removal*

Not treated.

*n. Evaluation Studies*

Blewitt, D.N., J.F. Yohn, and D.L. Ermak, 1987. An Evaluation of SLAB and DEGADIS Heavy Gas Dispersion Models Using the HF Spill Test Data, Proceedings, AIChE International Conference on Vapor Cloud Modeling, Boston, MA, November, pp. 56-80.

Ermak, D.L., S.T. Chan, D.L. Morgan, and L.K. Morris, 1982. A Comparison of Dense Gas Dispersion Model Simulations with Burro Series LNG Spill Test Results, *J. Haz. Matls.*, 6: 129-160.

Zapert, J.G., R.J. Londergan, and H. Thistle, 1991. Evaluation of Dense Gas Simulation Models. EPA Publication No. EPA-450/4-90-018. U.S. Environmental Protection Agency, Research Triangle Park, NC.

## PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401-7671q.

### § 52.21 [Amended]

2. In § 52.21, paragraphs (l)(1) and (l)(2) are amended by revising “and supplement B (1993)” to read “, supplement B (1993) and supplement C (1994)”.

[FR Doc. 95-19057 Filed 8-8-95; 8:45 am]

BILLING CODE 6560-50-P

## 40 CFR Parts 9 and 86

[AMS-FRL-5268-1]

RIN 2060-AE93

### Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Regulations Requiring Availability of Information for Use of On-Board Diagnostic Systems and Emission-Related Repairs on 1994 and later Model Year Light-Duty Vehicles and Light-Duty Trucks

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This final rule establishes requirements for the availability of emission-related service information for all light-duty vehicles (LDVs) and light-duty trucks (LDTs) beginning with the 1994 model year (MY). Section 202(m)(5) of the Clean Air Act (CAA or Act) requires EPA to promulgate rules mandating the availability of emission-related service information for such vehicles. This rulemaking requires vehicle manufacturers to provide to the service and repair industry information necessary to service on-board diagnostic (OBD) systems and to perform other emission-related diagnosis and repair.

**EFFECTIVE DATE:** This final rule is effective December 7, 1995.

**ADDRESSES:** Materials relevant to this rulemaking are contained in Docket No. A-90-35. The docket is located at The Air Docket, 401 M Street, S.W., Washington, D.C. 20460, and may be viewed in Room M-1500 from 8:30 a.m. until 3:30 p.m. Monday through Friday. A reasonable fee may be charged by EPA for copying docket material.

**FOR FURTHER INFORMATION CONTACT:** Cheryl Adelman, Certification Division, U.S. Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, Michigan 48105, Telephone (313) 668-4434

#### SUPPLEMENTARY INFORMATION:

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## I. Background and Development

Section 202(m)(5) of the CAA, as amended by the Clean Air Act Amendments of 1990 (CAAA), directs EPA to promulgate regulations requiring vehicle manufacturers to provide to:

any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines, and the Administrator for use by any such persons, \* \* \* any and all information needed to make use of the [vehicle's] emission control diagnostic system \* \* \* and such other information including instructions for making emission-related diagnoses and repairs.

Such requirements are subject to the requirements of section 208(c) regarding protection of trade secrets; however, no such information may be withheld under section 208(c) if that information is provided (directly or indirectly) by the manufacturer to its franchised dealers or other persons engaged in the repair, diagnosing or servicing of motor vehicles.

On September 24, 1991, EPA published a notice of proposed rulemaking<sup>1</sup> (NPRM) outlining the Agency's proposed service information requirements. EPA subsequently reopened the comment and held public workshops to further review aspects of these requirements.<sup>2</sup> Today's document promulgates these regulations.

As of August 1990, 96 urban areas were in violation of the National Ambient Air Quality Standard (NAAQS) for ozone and 41 areas could not attain the NAAQS for carbon monoxide (CO). EPA estimates that currently 60% of the total tailpipe HC emissions from LDVs and LDTs are caused by the 20% of vehicles with serious emission control system malfunctions or degradation.<sup>3</sup> The more stringent new vehicle emission standards mandated by the Act

are likely to increase further the proportion of total LDV emissions from malfunctioning vehicles.

The purpose of the OBD system and emission-control systems is to reduce emission levels of various pollutants. For such systems to achieve projected levels of emission reductions, it will be essential that they be adequately maintained and repaired. This will require automotive technicians to possess the knowledge necessary to identify and repair improperly operating emission-related systems and components. This knowledge is acquired, in part, by having access to information on the operation and repair of such systems and related components.<sup>4</sup>

To date, automotive technicians employed by manufacturer franchisees have had access, through their employer, to needed emission-related service and repair information. The same is not always true for other individuals who repair and service vehicles. Some manufacturers do not make available to the public all the information needed to adequately service and repair motor vehicles. Further, when information is made available, it may be difficult to locate and time consuming to obtain.

It is especially important for independent technicians to have access to needed emission-related service and repair information, including training instructions. It has been estimated that independent technicians are responsible for conducting up to 80% of all repairs.<sup>5</sup> In addition, independent technicians are more likely to repair the vehicles which are the most likely to violate emission standards (older vehicles, in general). This conclusion is the result of a recent study which demonstrated that (1) the level of excess emissions increases as a vehicle's mileage increases, and (2) the percentage of nondealer repairs increased and dealer repairs decreased as a vehicle's mileage increased.<sup>6</sup> Considering the large number of vehicles being serviced by independent technicians, it is essential that such individuals have access to adequate emission-related repair and service information.

Today's regulations are intended to preserve freedom of choice by

<sup>4</sup>To properly service and repair vehicles, automotive technicians require both access to needed information and training. Direct training is beyond the scope of this rulemaking; however, the availability of manufacturer training information and materials is covered by these proposed regulations.

<sup>5</sup>"Service Job Analysis," Hunter Publishing Co., 1984.

<sup>6</sup>"Survey of Vehicle Owners in the On-Board Diagnostics Program," Westat, Inc., July 18, 1990.

consumers in where they obtain service and repair of emission-related systems. This can only be achieved by ensuring that all sectors of the automotive service industry have access to the information needed to perform such service and repairs.

## II. Requirements of the OBD Final Rule

### A. Availability of Service Information

Today's regulations require that manufacturers provide to any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines all information necessary to make use of the OBD system and any information for making emission-related diagnosis and repairs, including any emission-related information that is provided by the manufacturer to franchised dealers or other persons engaged in the repair, diagnosing or servicing of motor vehicle engines.

### B. Required Information and Emission-Related Information

Manufacturers are required to make available to the aftermarket "any and all" information needed to make use of the OBD system and such other information, including instructions for making emission-related repairs, excluding trade secrets. The scope of the information that must be provided includes the direct and indirect service and repair information that a manufacturer provides to its authorized dealerships or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines. Examples of direct information are service manuals, technical service bulletins (TSBs), training materials or information, diagnostic information, wiring diagrams, and any written memoranda or guidance provided to dealers. Indirect information is information provided to dealers through indirect means. Examples of indirect information include, but are not limited to, information made available through tools and equipment, such as emission-related reprogramming events, data stream information, and bi-directional control. Manufacturers are required to provide such information (or allow such information to be provided by others) to persons engaged in the repair and service of vehicles in the same or similar manner such information is provided to their dealers. Manufacturers are not required to provide such information directly without regard for protection of trade secrets.

Information for making emission-related diagnosis and repairs does not include information used to design and manufacture parts, but may include

<sup>1</sup> 56 FR 48272 (September 24, 1991).

<sup>2</sup> 57 FR 24457 (June 9, 1992); 58 FR 34013 (June 23, 1993).

<sup>3</sup> Regulatory Impact Analysis: On-Board Diagnostics, Appendix I; Air Docket No. A-90-35.

manufacturer changes to internal computer calibrations. However, a manufacturer need only provide internal calibrations to the service and repair industry to the extent it has provided such information to its dealerships.

Emission-related information includes, but is not limited to, information regarding any system, component or part of a vehicle that controls emissions and any system, component and/or part associated with the powertrain system, including, but not limited to, the engine, the fuel system and ignition system. Information must also be provided for any system, component, or part that is likely to impact emissions, such as transmission systems. In addition, EPA will monitor the results of inspection and maintenance (I/M) programs for failures resulting from systems, components or parts other than those described here. If EPA determines that a substantial number of I/M failures are occurring due to systems, components or parts other than those described here, the extent of emission-related service information will be expanded to include such items. EPA will notify any affected manufacturer(s) of its concerns and will allow such manufacturers to reply to these concerns prior to making any such determinations. Affected manufacturers will be notified of any such EPA determinations.

#### C. Cost of Service Information

Emission-related service information is to be made available at a reasonable price. This means the fair market price taking into consideration factors such as the cost to the manufacturer of preparing and/or providing the information, the type of information, the format in which it is provided, the price charged by other manufacturers for similar information, the differences that exist among manufacturers (e.g., the size of the manufacturer), the quantity of material contained in a publication, the detail of the information, the cost of the information prior to publication of this final rule, volume discounts, and inflation. EPA is not requiring that manufacturers sell information to aftermarket service providers at the lowest price charged to their dealerships.

#### D. Distribution of Service Information and Timeliness

Today's rule allows each manufacturer to distribute emission-related service and repair information through the distribution mechanism it determines to be the most efficient and cost-effective. There is no requirement

that manufacturers use the same distribution mechanism for dealers and aftermarket service providers. However, each manufacturer will be responsible for up-loading a complete index of required information to NTIS' (National Technical Information Service) FedWorld.<sup>7</sup> Manufacturers are required to make available on FedWorld an index of all information that falls within the definition of emission-related service, diagnosis and repair information.<sup>8</sup> This includes, but is not limited to, manuals, TSBs, all training materials, and videos. Each manufacturer title listed in the index must adequately describe the contents of the document to which it refers. If a title does not adequately describe the contents, the manufacturer shall provide a brief description that enables the user to determine whether an item contains the information being sought. If requested to do so, FedWorld will accept orders for service information and transmit them to the manufacturer's designated information distributor. The party identified in FedWorld by a manufacturer as the distributor of the manufacturer's emission-related service information can be the manufacturer itself, a publisher/distributor, or other entity that can provide the information as required.

In addition to the index, manufacturers are required to list a phone number and address where aftermarket service providers can call or write to obtain the desired information. Manufacturers must also provide the price of each item listed, as well as the price of items ordered on a subscription basis.

Manufacturers are required to update the FedWorld index on the first and third Monday of each month or as otherwise specified by the Agency. A manufacturer may opt to update its FedWorld index more frequently. In addition, each manufacturer is responsible for paying its share of the annual cost of FedWorld. Such costs are to be paid by each manufacturer; however, payments can be made through various arrangements, e.g., a group of manufacturers can elect to determine what they would owe if paid individually and then divide that amount based on sales or other factors. The annual cost of maintaining the FedWorld database is approximately

\$70,000 to \$75,000. To determine the cost to each manufacturer, FedWorld will divide the total cost by the number of participating manufacturers.

Manufacturers are responsible for ensuring that the party shipping the information does so within a specified time period, i.e., within one regular business day of receiving an order. Distributors are encouraged to provide by fax items which, in their entirety, are less than 20 printed pages, such as TSBs. Also, the distributor is required to send the information by overnight delivery if the ordering party requests it and assumes the cost of delivery.

The search format to be used by FedWorld, e.g., manufacturer, MY, vehicle make, and so forth, will be determined by FedWorld shortly after publication of this rule and, to the extent possible, will take into consideration suggestions from EPA, manufacturers, and aftermarket service providers.

Each manufacturer has 120 days following publication of this rule to upload its index and meet the above requirements for providing all required service information to aftermarket service providers, facilities, and others for 1994 and later MY vehicles which have been offered for sale by that date. For vehicle models introduced more than 120 days after promulgation of these regulations, manufacturers are responsible for providing service information to aftermarket service providers, facilities, and others, at the same time it is made available to dealerships. Thereafter, to the extent there are changes, emission-related service information for MY 1994 and later vehicles which becomes available shall be added to the index at the next scheduled mandated update period, i.e., first or third Monday of each month.

Since independent technicians often work on many makes of vehicles, it is important for them to have access to condensed versions of service information. Therefore, EPA encourages the manufacturers to enter into agreements with information intermediaries in a manner which ensures that condensed information is available to aftermarket service providers in a timely manner and at a reasonable cost. Since information is available in its entirety from sources identified in FedWorld, manufacturers are not responsible for condensed information published by intermediaries or other third parties. Manufacturers are, however, responsible for errors in their own materials.

EPA is not issuing any regulations in this rule that specifically require manufacturers to provide information to

<sup>7</sup>NTIS operates FedWorld, an online computer system that allows public access to government and other documents. FedWorld can be accessed for up to three hours a day at no charge by using a modem to dial (703) 321-3339 or by using the Internet telnet command to connect to fedworld.gov.

<sup>8</sup>This requirement does not apply to indirect information, which is discussed below.

intermediaries (e.g., publishers of non-manufacturer service manuals) with emission-related information. However, EPA anticipates that manufacturers will continue to provide such intermediaries with information as they have in the past.

FedWorld will make available a telephone number that aftermarket service providers can call to obtain a printed copy of the index. Since information can be downloaded without charge, EPA expects that some trade publications and associations may offer subscribers or members a printed copy if they provide a self-addressed stamped envelope.

No waivers will be granted for any of the requirements related to FedWorld. Since EPA believes that FedWorld provides an adequate means of monitoring the information being made available, manufacturers are not required to submit a plan for distributing information as part of their certification requirements.

#### *E. Enhanced Diagnostic Information*

All emission-related data stream information made available to manufacturer franchised dealers (or others in the service industry) is required to be made available to equipment and tool manufacturers. Vehicle manufacturers can, in the alternative, make such information available to independent technicians through provision of vehicle manufacturer equipment and tools. Beginning on January 1, 1997, a manufacturer can only provide bi-directional control to its dealerships if it has provided equipment and tool manufacturers with information to make diagnostic equipment with the same bi-directional control capabilities available to the dealerships, or provided such capabilities directly to independent technicians through provision of their own tools. Manufacturers are required to make bi-directional control information available for all MYs beginning with MY 1994, if such information is provided to their dealerships. However, for MYs 1994–1996, where a manufacturer can prove that safeguards for bi-directional controls are only installed in tools, not in vehicle on-board computers, then that manufacturer may receive a waiver from producing bi-directional controls for vehicles prior to the 1997 MY. However, no such waiver is available for other types of data stream information.

This rulemaking does not require a manufacturer to supply any emission-related information to aftermarket service providers that it does not make available to its authorized dealerships or

other third parties. For example, functional control strategies and waveform information are not required to be made available to aftermarket service providers except to the extent they are made available to authorized dealerships.

#### *F. Enhanced Diagnostic Tools*

Manufacturers are required to either make available to aftermarket tool and equipment companies any and all information, except calibrations and recalibrations, needed to develop and manufacture generic tools that can be used by independent technicians to diagnose, service and repair emission-related parts, components and systems or they may sell their own diagnostic tools and equipment to independent technicians if the price of such tools is reasonable (e.g., competitively priced with aftermarket tools that would perform the same functions).

As to emission-related diagnostic and service information utilized by aftermarket tool and equipment companies that make generic tools which perform the same or similar functions as those provided by manufacturers to their dealerships, the Agency is requiring that such information be provided at the time of model introduction. This should allow adequate time for its incorporation into tools and equipment by aftermarket tool and equipment companies.

#### *G. Recalibration/Reprogramming*

Effective December 1, 1997, manufacturers are required to:

(1) make available to independent technicians all emission-related reprogramming events (including driveability reprogramming events that may affect emissions) that were issued prior to December 1, 1997 by manufacturers and made available to dealerships for MYs 1994 through 1997; and

(2) for reprogramming events that are issued on or after December 1, 1997, make available to independent technicians all emission-related reprogramming events (including driveability reprogramming events that may affect emissions) issued by manufacturers for 1994 and later MY vehicles at the same time they are made available to dealerships.

For all vehicles, reprogramming need not be provided for any recalibrations performed prior to vehicles entering the stream of commerce (i.e., sale to first purchaser).

If a manufacturer can demonstrate, to the satisfaction of the Administrator, that hardware would have to be retroactively installed on vehicles to

meet security measures implemented by the manufacturer, the manufacturer may request a waiver from the reprogramming requirements for MYs 1994 through 1996.

EPA is providing manufacturers until December 1, 1997, to adopt and implement security measures, such as encryption or other measures, that address tampering concerns and concerns regarding proprietary information. This leadtime also provides manufacturers an opportunity to work out logistical issues related to making reprogramming available to the potentially large numbers of independent facilities that may be interested in receiving this capability. Though EPA is allowing security measures to be implemented by manufacturers, such measures are not being required by these regulations. EPA believes that manufacturers are best able to determine the extent to which the release of this information will endanger the proprietary nature of the underlying information and/or potentially lead to tampering.

Manufacturers are required to either offer for sale at a competitive market price a reprogramming tool that interfaces with the vast majority of generic portable computers or make available to aftermarket tool and equipment companies information that would enable them to manufacture such a tool. In addition, manufacturers are responsible for assuring that those independent service providers who elect not to purchase reprogramming services have access to reprogramming services at a reasonable cost and in a timely manner.

Any method adopted by a manufacturer by which reprogramming is made available to independent technicians cannot impose a significant burden on independent technicians beyond that experienced by dealerships. For example, manufacturers can sell reprogramming tools directly to independent technicians or enter into agreements with aftermarket tool companies whereby the manufacturers provide the tool companies with the information necessary to build reprogramming tools. In conjunction with one of these options, manufacturers could transmit reprogramming events directly to independent technicians by modem from a main frame computer or provide them with CD ROMs. In formulating its method of making reprogramming available to independent technicians, a manufacturer may request to meet with EPA to discuss whether the method comports with the requirements of this rule.

Manufacturers are also responsible for ensuring that aftermarket service providers have an efficient and cost-effective method for identifying whether the calibrations on a vehicle are the latest to be issued.

### III. Public Participation

On September 24, 1991, EPA published a NPRM which set forth proposed requirements for emission-related service information for LDVs and LDTs. The period for submission of comments on the NPRM was scheduled to close on December 9, 1991.

On November 6 and 7, 1991, a public hearing was held. The original comment period was then extended to January 10, 1992, for comments regarding the availability of service information. In addition, workshops were held on June 30, 1992, and July 14, 1993. The comment periods for these two workshops closed on July 31, 1992, and August 13, 1993, respectively.

The CAA requirements regarding the availability of service and repair industry information necessary to perform repair and maintenance service on OBD systems and other emission-related vehicle components elicited extensive comments. Comments were received from manufacturers and their associations, mechanics and their trade associations, motor vehicle dealerships, state agencies, and private individuals. Because of the scope of the issues involved and raised by these comments, the following sections only briefly summarize comments on the major issues. For the complete response to comments, see the *Response to Comments on the Regulations Requiring the Availability of Service Information on 1994 and Later MY Light-Duty Vehicles and Light-Duty Trucks* contained in the public docket for this rule.

### IV. Discussion of Comments and Issues

Comments on a wide range of issues concerning the proposed service information requirements were received. Summarized here are the comments concerning the major or controversial issues and the rationale behind EPA's final decisions. These issues are considered in more detail in the supplemental Response to Comments document prepared for this final rule and included in the docket noted earlier. Also in the Response to Comments document is consideration of other issues whose resolution is reflected in this final rule.

#### A. Definition of "Emission-Related" Information

*Summary of Proposal:* The proposed regulations required that "all information" needed to make emission-related repairs be made available to the automotive service industry. The scope of "all information" would include, but not be limited to, any emission-related service and repair information that a manufacturer provides to its authorized dealerships.

Based on the comments received in response to the NPRM and the June 30, 1992 workshop, EPA believed that clarification was warranted as to the systems, components and parts for which emission-related service, diagnostic and repair information must be provided by the manufacturers to aftermarket service providers. For purposes of this rule, EPA proposed that emission-related service, diagnostic and repair information would include, but not be limited to, any system, component or part of a vehicle that controls emissions and any system, components and/or part associated with the powertrain system, including, but not limited to, the fuel system and ignition system. Information would also have to be provided for any system, component, or part that could have a reasonably foreseeable impact on emissions, such as transmission systems.

In addition, EPA proposed to monitor the results of I/M programs for failures resulting from systems, components, or parts other than those described here. If EPA determines that a substantial number of I/M failures are occurring due to systems, components, or parts other than those described here, the extent of emission-related service information would be expanded in a subsequent rulemaking to include such items.

*Summary of Comments:* Most manufacturers recommended that the extent of service information that they must make available be limited to all service information that is required to diagnose and repair emission-related malfunctions that will cause an OBD code to be set and illuminate the "check engine" light. They stated that each manufacturer will determine which malfunctions will cause a significant impact on emissions, and thus, which malfunctions will store an emission-related fault code and illuminate the malfunction indicator light (MIL).

Some manufacturers commented that the proposed language is deficient in defining the information that must be included in the provision for service information. They believe this could

lead to subjective interpretations, resulting in manufacturers providing distinctly different levels of information. Saab asserted that EPA's proposal to use the I/M program to later expand the definition of emission-related systems and components unnecessarily burdens manufacturers with an ever-changing, and ever-expanding, set of rules.

Generally, the aftermarket commenters endorsed the definitions of emission-related information proposed by EPA. Some aftermarket commenters responded that any attempt to distinguish between emissions-related and non-emissions-related vehicle systems and devices is nonproductive and accomplishes nothing more than to direct attention away from the important issues. According to one commenter, a valid argument can be made that virtually every component of today's vehicles can affect the performance of the vehicle's emissions system. ASIA suggested that it may be more efficient for EPA to require manufacturers to release all vehicle-related service information.

*Analysis of Comments:* EPA disagrees with the position that emission-related information is defined by and limited to information required to diagnose and repair malfunctions that will result in illumination of the MIL. Illumination of the MIL will not necessarily be triggered by every malfunction of emission-related parts, components and systems. To maintain air quality it is important that service and repair information on all such parts, components and systems be provided. In addition, the diagnostics requirements for OBD are limited to the engine and drivetrain, because they have the most direct impact on emissions. However, this does not alter the fact that malfunctions of other parts and components could impact emissions. Further, MIL illumination is only necessary when a single source of malfunction causes emissions to increase above the MIL threshold. As the OBD requirements and the MIL thresholds are generally designed to detect severe malfunctions, more limited malfunctions, which may still have an effect on emissions, may not trigger the MIL. Moreover, multiple malfunctions, when combined, can cause exceedance of emission thresholds even though each one individually may be insufficient to cause an emission problem severe enough to illuminate the MIL. Also, OBD only needs to flag that a problem exists and indicate the general cause (e.g., misfire)—it does not identify the precise cause of the problem which could be due to a myriad of factors, such

as lean fuel/air ratio, bad wiring or sparkplugs.

Moreover, EPA believes that the language of section 202(m)(5) requiring manufacturers to provide "all information needed to make use of the emission control diagnostic system \* \* \* and such other information including instructions for making emission-related diagnosis and repairs" [emphasis added] makes it clear that other information pertinent to making emission-related repairs, in addition to information needed to make OBD-related repairs, must be provided to aftermarket service providers. Had Congress wished to limit the information availability requirement only to those repairs necessary to make full use of the OBD system, it need not have included the second phrase of the requirement, relating to other information for making emission-related repairs, or could have limited the second phrase to those repairs necessary to make repairs related to MIL illumination. Instead the second phrase broadly refers to "emission-related diagnosis and repairs." Therefore, EPA believes it is reasonable to require manufacturers to provide information required for any emission-related repairs to be made available.

EPA has adopted a description of emission-related information that is consistent with previous definitions of emission-related maintenance, as set forth in EPA's "allowable maintenance" regulations. See 40 CFR § 86.088-2. Those regulations specify maintenance which may be performed on certification vehicles and establish an interpretation of "properly maintained vehicle" for use in the recall program. EPA made clear in those regulations that any maintenance that is likely to affect emissions would be considered emission-related:

Emission-related maintenance means that maintenance which does substantially affect emissions or which is likely to affect the emissions deterioration of the vehicle or engine during normal in-use operation, even if the maintenance is performed at some time other than that which is recommended. 40 CFR § 86.088-2

Contrary to the suggestion of some manufacturers, EPA is not providing a specific or suggested list of parts, components or systems for which information must be provided. Such lists may be interpreted by some manufacturers as the maximum emission-related information that must be made available. In addition, continually evolving vehicle technology will result in ongoing changes as to what constitutes emission-related information. Therefore, it would not be

reasonable to select a point in time and say that emission-related information is defined by what exists at that point.

Contrary to comments from some aftermarket commenters, the Agency only has the authority to require manufacturers to provide emission-related information. As previously indicated, this includes anything that is likely to affect emissions. If the Agency initially determines that a part, component or systems impacts emissions, it will notify the manufacturers who will be provided an opportunity to demonstrate otherwise if it disagrees.

*EPA Decision:* Emission-related information includes, but is not limited to, information regarding any system, component or part of a vehicle that controls emissions and any system, components and/or parts associated with the powertrain system, including, but not limited to, the fuel system and ignition system. Information must also be provided for any system, component, or part that is likely to impact emissions, such as transmission systems. In addition, EPA will monitor the results of I/M programs for failures resulting from systems, components or parts other than those described here. If EPA determines that a substantial number of I/M failures are occurring due to systems, components or parts other than those described here, the extent of emission-related service information will be expanded to include such items. EPA will notify any affected manufacturer(s) of its concerns and will allow such manufacturers to reply to these concerns prior to making any such determinations. Affected manufacturers will be notified of any such EPA determinations.

#### *B. Information Used To Manufacture Aftermarket Parts*

*Summary of Proposal:* EPA did not propose that vehicle manufacturers provide aftermarket parts manufacturers with information to design and manufacture parts.

*Summary of Comments:* A group of aftermarket associations commented on the importance of information used to design and manufacture parts. According to these commenters, competition in the service industry would be threatened if parts manufacturers are not provided sufficient information to produce quality aftermarket parts which work with emissions control systems, OBD systems, and computers. They stated that independent service and repair facilities depend on the availability of affordably priced quality aftermarket parts to compete with dealers for service

and repair. Without such competition, the associations believe that the only source of parts becomes the manufacturers which then have the ability to increase prices and limit availability. According to the commenters, in Japan, where an independently produced supply of replacement parts does not exist, repair prices are two and one half times more than what the U.S. car owner pays. The commenters believe that a failure to assure that parts producers can design and manufacture aftermarket parts will import the Japanese system to America and have a staggering effect on the ability of American motorists to properly maintain their vehicles.

These commenters also argued that parts producers need access to information used to design and manufacture parts, including functional control strategies and component calibrations, to produce emissions-related components that work within sophisticated emissions and diagnostic systems. The commenters indicated that engine calibration information also is required both to produce certain critical aftermarket parts and to test that the replacement parts will not cause failure of the emissions system or improperly trigger the MIL.

*Analysis of Comments:* Information used to manufacture and design parts does not constitute information needed to make emission-related diagnosis and repairs as defined in section 202(m)(5). Therefore, such information is not addressed in this rulemaking. The purpose of section 202(m)(5) is to ensure that independent technicians have access to information needed to service and repair vehicles, thereby ensuring consumers with freedom of choice in where to take their vehicles for repairs. Manufacturers are only required to provide information in order for persons to service and repair vehicles. They are not required to provide recalibration information that is not needed to make emissions-related diagnosis and repairs, even if such information may be useful for the manufacture of aftermarket parts. Nothing in the language of the statute itself or in the legislative history indicates that Congress intended section 202(m)(5) to assure access and information for the manufacture of aftermarket parts. On the contrary, the legislative history speaks only of the need to ensure equal access for vehicle repair facilities.

It is important to note that Congress limited the manufacturers' information requirement such that trade secrets protected by section 208(c) need not be made available. It is clear from the

comments that much of the information requested for the manufacture of aftermarket parts is in fact information of a more proprietary nature than the information necessary to make diagnoses and repairs. Where information is not needed by repair personnel to repair vehicles and has not been disclosed to dealers, section 202(m)(5) does not require its disclosure.

Aftermarket parts manufacturers have been making such parts for many years, even as cars have become more and more complicated. Though the introduction of new emission requirements, including OBD, will continue the trend of making cars more complex, parts manufacturers' speculation regarding the effects of such requirements on their ability to make aftermarket parts is contradicted by other statements that parts manufacturers will continue to make parts as they have in the past. In any case, parts manufacturers have not shown that Congress intended section 202(m)(5) to require disclosure of information required to make aftermarket parts.

*EPA Decision:* Information for making emission-related diagnosis and repairs does not include information used to design and manufacture parts.

### C. Guidelines

*Summary of Proposal:* In the NPRM, EPA proposed that "all information needed to make emission-related repairs" be made available to the automotive service industry. EPA did not provide guidelines or specify the types of information that this would encompass. In the June 1992 workshop notice, EPA indicated that interested parties would have an opportunity to present ideas regarding specific types of, or guidelines for determining the information that should be encompassed by the phrase "all information needed to make emission-related repairs."

*Summary of Comments:* Several commenters responded that EPA should define or provide guidelines as to the information that must be provided. They asserted that failure to do so could result in manufacturers providing different levels of information due to different interpretations of the phrase "all information."

Ford Motor Corporation (Ford) expressed concern that EPA may require more information than is necessary for utilizing the emissions diagnostic system and to perform effective diagnostics and repairs.

Chrysler Motor Corporation (Chrysler) commented that it has and will continue

to provide to the aftermarket the following type of service information related to the repair of emission-related failures: (1) diagnostic information relating to I/M exhaust and evaporative test failures; (2) service repair information for emissions components; (3) wiring diagrams; (4) specifications; and, (5) TSBs. Chrysler believes this information meets the requirements of the CAA.

One manufacturer stated that if manufacturers demonstrate that the same information provided to dealers is made available to the aftermarket (excluding recalibration information), they have satisfied the intent of the law.

Aftermarket commenters argued that EPA's regulations must not permit a closed-ended or specifically limited definition of information that would be available to the entire industry. The aftermarket industry asserted it does not have adequate technical information on future vehicle designs and systems to allow for limitations or restrictions through rules or definitions on the information that will be necessary to effectuate adequate repairs. The Automotive Parts and Accessories Association (APAA) commented that rapidly changing vehicle technology would force EPA to revisit the guidelines on a semi-annual or yearly basis to determine if the proper information is being provided.

APAA indicated it might support guidelines that determine the types of information which must be provided to independent technicians. APAA assumed these guidelines would cover items, such as functional control strategies and wave diagrams, which are necessary elements if manufacturers are to provide all information needed for repair of emissions systems. APAA commented that its major concern is that any regulations regarding guidelines should direct that they be as comprehensive as possible and must explicitly state that such guidelines establish a minimum standard for information.

*Analysis of Comments:* EPA believes that the concerns of manufacturers are unwarranted under the requirements of the final rule. The requirement to submit a certification plan has been deleted. Therefore, concerns regarding delays in the certification process are no longer pertinent.

Ford stated that without guidelines, EPA could require proprietary and confidential information be made available to the public. EPA does not believe this is a problem. Subsection 202(m)(5) specifies that any information provided to authorized dealerships or others engaged in the service, repair or

diagnosis of vehicles is not proprietary. EPA is not requiring that undisclosed proprietary emission-related information be made available as part of this rule.

Regarding Chrysler's comment, other types of emission related information, such as data stream and bi-directional control, are not on Chrysler's list and are required as part of this rule. Contrary to Chrysler's assertion, EPA believes, as discussed elsewhere, it has the authority to require the dissemination of such information.

EPA agrees with aftermarket comments that the regulations must be structured so as to carry out Congress' intent that all information needed to make emission-related diagnosis and repairs be provided, excluding trade secrets, to ensure that there are efficient and effective repairs of emission-related problems. However, EPA is not requiring at this time that manufacturers provide information to independent technicians that is not also supplied to authorized dealers, or other persons engaged in the diagnosis, repair, or servicing of motor vehicles or motor vehicle engines. Depending on the manufacturer, such information might include functional control strategies and wave diagrams, as discussed in section H below.

EPA is concerned that the use of specific guidelines may be incorrectly interpreted as a limitation on the emission-related information that is required to be provided. The Agency is also concerned that such guidelines would require continual updating to ensure they reflect rapidly changing vehicle technology. EPA believes this would be a time-consuming and unnecessary process. At this time, EPA generally agrees with the commenter who stated that if manufacturers provide the same emission-related information to dealers and the aftermarket they will meet the requirements of this rule. The evidence presented did not indicate that any manufacturers withhold necessary information (excluding more complex and high level information, like functional control strategies) regarding emission-related diagnosis and repair from their own dealers. If, through review of this program, it becomes apparent to EPA or others that a particular manufacturer is not providing nonproprietary information necessary to make emission-related diagnosis and repair to the service community (including its own dealers), EPA may take action against such manufacturer through these regulations.

*EPA Decision:* Manufacturers are required to make available to the

aftermarket "any and all information" needed to make use of the OBD system and to make emission-related repairs, excluding trade secrets. The scope of information that must be provided includes any direct and indirect service and repair information that a manufacturer provides to its authorized dealerships or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines. Examples of direct information are service manuals; TSBs; training material or information; diagnostic information; wiring diagrams; and any written memoranda or guidance provided to dealers. Examples of indirect information are emission-related reprogramming events; data stream information; and bi-directional control. (Indirect information is discussed below.)

At this time, manufacturers are not required to supply any emission-related information to the aftermarket that they do not make available to their authorized dealerships or other third parties, subject to the requirements regarding specific types of information, like data stream information, that must be provided under these regulations. For example, if a manufacturer does not supply functional control strategies to its dealers, directly or indirectly, it is not required to supply them to the aftermarket service industry.

#### D. Cost of Service Information

*Summary of Proposal:* The proposed rule required that emission-related information be made available at a reasonable price (i.e., what would be expected if the suppliers of information were acting as competitors). In determining whether the price of information is reasonable, EPA indicated it would consider all relevant factors, including, but not limited to, the cost to a manufacturer of preparing and/or providing the information, the type of information, the format in which it is provided, and the price charged by other manufacturers for similar information.

The proposed regulations further required that when manufacturers provide the same information to independent technicians and dealerships, the price to independent technicians for such information would not exceed the lowest price charged to any of a manufacturer's authorized dealerships.

*Summary of Comments:* Comments from manufacturers focused primarily on the authority of EPA to regulate the cost of emission-related information, determination of the "reasonable" cost of service information, and the proposed

requirement that the cost of service information sold by manufacturers to the aftermarket "shall not exceed the lowest price at which it is provided to any authorized dealerships."

*Analysis of Comments:* Section 202(m)(5) of the CAA requires that vehicle manufacturers make emission-related information available. Available is defined as "that which can be got, had or reached or that one can avail oneself of."<sup>9</sup> A prerequisite to getting an item is having the ability to afford it. The Agency is concerned that if emission-related service information is priced in a manner that precludes its purchase and subsequent use then it is unavailable as that term is commonly defined. Further, the cost of service information was of concern to Congress as evidenced by the statement of then Senator Gore, the Senator that introduced the "information availability" provision of the CAAA.<sup>10</sup>

Thus, cost is an integral part of availability and, therefore, within the purview of the Agency to consider in determining whether manufacturers make information available as required to the aftermarket.

The Agency believes that establishing factors to serve as reference points to evaluate whether the cost of information is reasonable, will serve as guidance for manufacturers, and help reduce the possibility that inappropriate pricing would occur in an effort to prevent the purchase of information and, thereby ensure that information is available at a reasonable cost. Manufacturers commented on several factors they believe should also serve as reference points for evaluating the cost of information. EPA agrees with some of the factors suggested and has incorporated them into the regulations. For a discussion of each factor, see the Response to Comments document.

EPA also believes that the burden of proof to demonstrate that the price of manufacturer service and repair information is unreasonable should be on the purchaser of that information.

As to the "lowest cost" requirement, EPA agrees with some of the commenters that such a provision could

<sup>9</sup> Webster's New World Dictionary, 3rd ed., p 94, 1988.

<sup>10</sup> The Senator stated that "when we require [manufacturers] to promptly provide information needed, we recognize that we do not want to require somebody to provide a lot of expensive manuals absolutely for free, but we do not want the kind of charges that make this a profit center. We want them to provide the information which will allow competition in the aftermarket and allow small business operators to get in the repair business. Otherwise, you force vehicle owners to go only to the major automobile manufacturers' places of business." 36 Cong. Rec. 3272 (1990).

have unanticipated effects on direct aftermarket sales and on dealerships that distribute information. Therefore, this requirement has been deleted.

*EPA Decision:* On the basis of the comments and further EPA analysis, emission-related service information is to be made available at a reasonable price. This means the fair market price taking into consideration factors, such as the cost to the manufacturer of preparing and/or providing the information, the type of information, the format in which it is provided, the price charged by other manufacturers for similar information, the differences that exist among manufacturers (e.g., the size of the manufacturer), the quantity of material contained in a publication, the detail of the information, the cost of the information prior to publication of this final rule, volume discounts, and inflation. EPA is not requiring that manufacturers sell information to aftermarket technicians at the lowest price charged to their dealerships.

#### E. Distribution of Service Information

*Summary of Proposal:* EPA proposed that emission-related service and repair information, whether distributed by the manufacturer or an intermediary, be reasonably accessible to all persons who service and repair motor vehicles. To qualify as reasonably accessible, the information must be available to independent technicians upon request without substantial delay. Further, manufacturers would be required to utilize reasonable means to make independent technicians aware that the information is available. Also, manufacturers would need to provide intermediaries with emission-related information in a timely manner in order that their products or services be available to independent technicians when needed. In all cases, manufacturers would retain full responsibility for compliance with section 202(m)(5). Failure to an intermediary to properly provide information does not relieve the manufacturer from responsibility to provide the information.

EPA subsequently suggested the use of the NTIS as a clearinghouse for service information. Manufacturers would be required to provide initial service, repair, diagnostic and parts information to the NTIS within thirty days of providing it to their franchised dealerships or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines. Service, repair, diagnostic and parts information, such as TSBs and troubleshooting manuals, issued to dealerships during any subsequent



thirty day period would be sent to the NTIS at the end of each such thirty day period.

EPA suggested that each manufacturer provide the required information to the NTIS free of charge pursuant to a copyright release or other agreement. The NTIS would reproduce information in the form in which it was received and distribute it upon request.

Manufacturers would receive royalties from the distribution of the information by the NTIS based on prearranged agreements. To determine what information the NTIS has available, purchasers could either access the NTIS' on-line bulletin board or request a printed list.

By using the NTIS as a clearinghouse, several requirements which were proposed to be the responsibility of the manufacturers would be deleted or amended. First, manufacturers would not be responsible for information distributed by intermediaries or other parties. Second, manufacturers would not be required to continually inform the aftermarket about the availability of their service information through advertisements or other efforts. Third, by using the NTIS as a clearinghouse, manufacturers would not be required to submit a detailed certification plan. Fourth, the requirement that manufacturers provide information in a timely manner would be satisfied by providing information to the NTIS on a designated schedule. Last, the requirement that information be provided at a reasonable cost could, at least in part, be addressed by the NTIS' sale of information. Whether the cost requirement would be satisfied would depend on whether and to what extent royalties are paid to manufacturers and the ability of the NTIS to provide its services at an affordable price.

*Summary of Comments:* EPA received numerous comments, particularly on distribution of information by intermediaries and the use of NTIS as a clearinghouse for information. As to the use of intermediaries to distribute information, a few manufacturers and MVMA commented that it is illogical, unreasonable and unfair to hold manufacturers liable for the failure of intermediaries to disseminate information. They asserted that past experience has shown that independent parties contracted to prepare written service information for manufacturers do not always comply with deadlines established by the manufacturer. They stated that EPA should not hold manufacturers liable for the actions of third parties over which they have no control. One commenter indicated that even though a manufacturer contracts

with an intermediary to distribute information and the method of such distribution is satisfactory to EPA, a third party which has no contractual agreement with the manufacturer could repackage and resell the information in a manner that does not meet EPA requirements. Manufacturers suggested that the regulations be amended to hold a manufacturer responsible for an intermediary only when information is provided solely through an intermediary.

General Motors (GM) argued that EPA does not have the authority to require manufacturers to provide information to intermediaries. Chrysler objected to any regulation that would require it to deal directly with entities outside its normal chain of distribution of goods and services. The National Automobile Dealer's Association (NADA) commented that different manufacturers have a substantial investment in a variety of different distribution mechanisms, all of which are well understood by the entire vehicle maintenance industry. So long as necessary information is provided through one or more of these mechanisms, NADA believes a manufacturer's obligation should be satisfied.

Several aftermarket associations commented that manufacturers should be responsible for the distribution of emission-related repair information. Alldata Corporation (Alldata), however, commented that holding manufacturers responsible for the content and accuracy of information would add substantial delays to the distribution process and reduce the accuracy and usefulness of information.

Responses to the use of a clearinghouse to distribute emission-related service information were mixed. However, representatives of manufacturers and aftermarket associations raised several substantial issues regarding the use of a clearinghouse, and EPA's particular plan for using NTIS as a clearinghouse. In addition, information intermediaries and hotline services generally opposed the use of NTIS as a clearinghouse.

*Analysis of Comments:* EPA recognizes that the effectiveness of information distribution mechanisms may be affected by various factors, including manufacturer size, the amount and format of a manufacturer's service information, established distribution mechanisms, and the demand for information. Based on the differences that may occur as a result of these factors, EPA agrees with the comments that manufacturers should be afforded flexibility in determining the

most appropriate method of distributing information.

Therefore, EPA is allowing each manufacturer to fulfill its regulatory responsibility to distribute emission-related service and repair information through the distribution mechanism it determines to be the most efficient and cost-effective. Further, there is no requirement that manufacturers use the same distribution mechanism for dealers and the aftermarket. However, each manufacturer is responsible for uploading a complete index of required information on NTIS' FedWorld, as discussed above in section III.C. Since EPA believes that FedWorld provides an adequate means of monitoring the information being made available, manufacturers are not required to submit a plan for distributing information as part of their certification requirements.

Regarding use of intermediaries for distribution, EPA's position is that manufacturers are responsible for making sure that information is provided to the aftermarket as required by the regulations. If a manufacturer chooses to allow an intermediary to be its contractor, the manufacturer must ensure that the contractor meets the manufacturer's obligations. Transferring obligations to a third party does not remove a manufacturer's own legal requirements, though manufacturers may require intermediaries to be responsible for any damages a manufacturer incurs as a result of the intermediary's error. EPA agrees with manufacturers that where a manufacturer provides its own information directly to independent technicians, or contracts with a specific intermediary to distribute the manufacturer's information, the manufacturer is not responsible for the availability or accuracy of information provided by any other intermediaries to independent technicians.

EPA is not issuing any regulations specifically requiring manufacturers to provide intermediaries with emission-related information. However, EPA encourages manufacturers to continue providing such intermediaries with information as they have in the past. EPA agrees that manufacturers should not be held responsible for information published by independent intermediaries over which they have no control. However, manufacturers are responsible for the correctness of their own materials, as identified in FedWorld.

Manufacturers could, in the future, meet the distribution requirements by providing the required information in its entirety to a clearinghouse. Since no

such clearinghouse currently exists, this is not a viable option for manufacturers at this time. Whether a clearinghouse is economically and practically feasible in the future will be up to the industry to determine. Although EPA supports the concept of a clearinghouse, EPA has no plans to sponsor a clearinghouse or to be involved in resolving issues necessary to establish a clearinghouse.

For a more detailed review of the comments and EPA's response to these comments, please refer to the Response to Comments document.

*EPA Decision:* See section III.C. above.

#### F. Timeliness

*Summary of Proposal:* In the NPRM, EPA stated that to be effective, information must be provided in a timely manner. The proposed regulations established specific times within which manufacturers would be required to make available enhanced<sup>11</sup> and generic<sup>12</sup> service information and training information. The proposed regulations required enhanced service information to be made available to independent technicians within one month immediately following model introduction. Generic service information would have to be made available within 8 months immediately following model introduction or no later than the release of information to a manufacturer's franchised dealerships. The proposed regulations also required that during the period between model introduction and the time the required information becomes accessible to independent technicians, each manufacturer, through an expeditious means available to its franchised dealers (e.g., hotline, regional service centers), make available to all independent technicians needed emission-related repair and service information.

*Summary of Comments:* Some manufacturers commented that it is not appropriate for EPA to prescribe a time schedule for the availability of information. They stated that their time schedule for publishing information has never met EPA schedules and they could not estimate how many years would be needed to meet the proposed requirements.

One manufacturer commented that the timing requirements are unnecessarily severe and unneeded. A few manufacturers suggested that instead of specified times, EPA should specify "without substantial delay."

Some manufacturers asserted that information should be available when cars are offered for sale (i.e., made available to dealers), not before. These commenters stated that OBD systems will be built to a standardized format and, as a result, it is not necessary to know the specifics of the information beyond that format, unless trying to repair a specific car. They believe the aftermarket doesn't need it earlier to integrate it into their publications, since the majority of customers return exclusively to manufacturer dealers for warranty work. According to these manufacturers, providing the aftermarket with the required information within 3-6 months after vehicle introduction should be sufficient.

Several manufacturers commented that independent technicians generally do not require warranty information since owners will not be reimbursed under a manufacturer's emissions warranties for any non-emergency repair.

The Automotive Warehouse Distributor's Association (AWDA) and APAA commented that the proposed regulations generally establish appropriate times. The Automotive Service Association (ASA) believes that all information should be available at the same time it is provided to franchised dealers. ASA also stated that responses to specific requests should be provided within 24 hours, as a customer's vehicle can't be fixed until the information is retrieved. ASIA stated that this "same time" requirement would provide intermediaries with the appropriate leadtime necessary to review, digest, condense, alter, and publish this information for use by the general public and the aftermarket in a timely fashion.

All data argued that aftermarket information providers should receive repair information thirty days prior to the dealerships or, as an alternative, at the same time as dealerships.

*Analysis of Comments:* Manufacturers have argued that since their vehicles seldom have emission-related service performed at an independent service facility during the first two years of customer use (during the 24,000 mile warranty period), the aftermarket service industry does not need service information during that time period. Warranty coverage makes this most economic for customers. However, aftermarket service providers have, at least, a limited need for service information even for new vehicles, since dealer service is not always available when service is needed by the customer, e.g., when a vehicle needs repairs

during the evening or weekends. Further, the Act directs that aftermarket service providers are to receive emission-related service information without regard to whether aftermarket technicians are the persons most likely to repair a vehicle during a certain portion of the vehicle's life. There is no reason to restrict a consumer from obtaining aftermarket service even during a warranty period if the consumer determines it is in her/his best interest to do so. However, the limited need of aftermarket service providers for service information on new model vehicles when the vehicles are first introduced should be reflected in the burden placed on manufacturers, for example, in determining whether manufacturers must finalize service information earlier than they would otherwise do so. Manufacturer comments support delaying the availability of emission-related service information to the aftermarket, most often citing the burden on manufacturers as one of the major reasons. Manufacturers make the case that the proposal may cause them to provide information earlier than is their current practice. However, their comments provide only limited information on any adverse impact of supplying the aftermarket with such information in the time frames proposed.

Some suggested that, prior to some date, the independent service provider can obtain any necessary service information through a dealership. These suggestions would allow dealerships to determine whether the independent service provider is provided the required information in a reasonably timely manner. Placing such an intermediary in control of the dissemination of information is not consistent with the Act which designates manufacturers as being responsible for the availability of emission-related service information.

EPA understands that many of the independent service providers have traditionally relied on aftermarket consolidations of service information. One book or set of books will then provide coverage for a number of manufacturer vehicles. Purchasing these consolidated service information books is less expensive and perhaps more convenient than purchasing the more extensive manufacturer service books. However, with consolidation comes some loss in detail and usefulness. Availability of service information to these republishers is, therefore, also an issue.

Given that the majority of aftermarket emission-related repairs of a vehicle

<sup>11</sup> Enhanced service and repair information is specific for an original equipment manufacturer's (OEM) brand of tools and equipment.

<sup>12</sup> Generic service and repair information is not specific for an OEM's brand of tools and equipment.

will not begin until after the two year warranty has expired, there does not seem to be an urgent need of aftermarket republishers to have access to the manufacturer service information abnormally early. Consequently, the aftermarket republishers should be able to continue relying upon their existing mechanisms for use of manufacturer service information or, within legal constraints of copywrite law, etc., make use of the manufacturer service information when it becomes publicly available.

It is reasonable to provide some leadtime after adoption of these regulations to allow each manufacturer the ability to assemble the necessary information and put information dissemination procedures in place. However, since the information to be made available for MYs introduced prior to the finalization of these regulations (beginning with the 1994 MY) has been in the hands of the manufacturer's dealerships for some time, the information is clearly readily available to the manufacturer and, to a certain extent, has already entered the distribution network. Consequently, with regard to generic information, the time necessary to set up a distribution system for models already introduced is not driven by the availability of the information, only by the establishment of the distribution system itself. As described under the distribution section (on what information a manufacturer needs to provide for prior MYs), aside from setting up a distribution system (including the use of FedWorld), a manufacturer need only duplicate the information it has already supplied its dealerships and, in many cases, already made available to the aftermarket industry through distribution channels in place prior to these regulations. Thus, a manufacturer should require no more than 120 days after these rules are promulgated to have in place a distribution system making 1994 and later service information available to the independent service provider.

For vehicle models introduced beginning on or after 120 days following the promulgation of these regulations, manufacturers will have established a distribution system for getting the information into the hands of the aftermarket service provider by the time these vehicles are introduced. Therefore, no additional time is necessary for a manufacturer to make available to the independent service provider the generic information it is otherwise providing to its dealerships. (Timeliness for enhanced indirect information is discussed below in section H).

The subject of timeliness also reflects the need for a manufacturer to respond in a timely fashion to requests for emission-related service information. As discussed above, manufacturers must ensure that once an order is received by its designated distributor, the distributor must send the information within one business day after receiving it. This time frame for filling orders is reasonable. An exception to the one business day shipping requirement is available in those circumstances where orders exceed supply (based on projected demand) and, as a result, distributors need to reproduce a document. Manufacturers will not be required to respond to special, unique requests for service information; for example, manufacturers will not need to search through their shop manual for a specific section or page and fax just that page or section to a customer. Rather, they will be responsible for distributing information in a predetermined form and format, e.g., the same service bulletin sent to their dealership would also be sent to the independent service technician. Since the form and format of the information can be determined ahead of time, the burden on a manufacturer is to have a sufficient quantity of information available to meet demand and then have a mechanism in place to receive and process requests for information. Neither of these tasks require special skills and are akin to phone order merchandise distribution common in the retail sales industry. These other retail sales outlets commonly fill orders within 24 hours. A similarly timely response to requests for emission-related service information should be possible.

*EPA Decision:* Beginning four months after promulgation of these regulations, manufacturers are to have in place a service information distribution mechanism which will allow service information orders to be processed and mailed out within one business day of receipt of an order. As described above, manufacturers are required to provide more rapid service to their customers, i.e., priority mailing. At that time, manufacturers will be responsible for providing all required direct service information for 1994 and later MY vehicles which have been offered for sale. For vehicle models introduced more than four months after promulgation of these regulations, manufacturers will be responsible for providing direct service information to independent service technicians, facilities and others, at the same time it is made available to dealerships.

#### G. Media/Format

*Summary of Proposal:* In the NPRM, EPA established different format requirements for different time periods. These format requirements were based on SAE documents, some of which were not finalized at the time the NPRM was published, e.g., "Recommended Organization of Service Information" (J2008).

*Summary of Comments:* Extensive comments were received on the proposed formats. Some comments objected to any EPA requirements for formats, claiming that EPA lacked authority to require a specific format. Several commenters stated that the regulations would force them to completely rewrite and restructure their service literature, which would be a substantial and unnecessary burden. Some of these comments objected to any reference of SAE's draft recommended practices J2008 and "Remote Diagnostic/Service Communications" (J2187). NADA indicated that if SAE should finalize and adopt J2008 and/or J2187 at some later date, it would then be appropriate for EPA to reconsider their incorporation into the OBD regulation. The aftermarket generally supported use of standardized formats, saying that such standardization would help independent technicians locate and use diagnostic information.

*Analysis of Comments:* EPA believes that a standardized format should make accessing the volumes of available service information easier and enhance the ability of independent technicians to utilize information. EPA believes the benefits of an industry-accepted format will outweigh any initial costs in redesigning service literature. To ensure this goal is achieved, the Agency would like to provide adequate opportunity for the industry to develop a format which it believes most appropriately fulfills the needs of all interested parties. The Agency hopes that the industry will adopt SAE J2008 by mid-1995. However, if the industry is unable to agree on a standardized format, the Agency may develop a format for the industry.

This rule contains no requirements regarding the media or format of emission-related information, including "Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms" (J1930) and J2187. EPA believes that further discussions in the industry to develop appropriate formats will be useful prior to final regulations requiring any specific media or format. The Agency does not believe it is necessary at this time to address the comments received

regarding these issues, but will address them if and when it adopts such requirements.

*EPA Decision:* Due to various factors, SAE did not adopt J2008 in time to be incorporated into this final action. EPA had anticipated that SAE would adopt J2008 by mid-1994. If SAE finally adopts J2008 in a form that meets the needs of EPA, EPA would likely propose to incorporate J2008 into the service information regulations after further notice and comment. If J2008 is not finally adopted by SAE, or if the final version of J2008 does not meet the needs of EPA, EPA may propose to adopt its own format that manufacturers would be required to follow. EPA believes that adoption of an EPA-designed format may be necessary to prevent delays in the conversion of service information to an electronic format.

This rule contains no requirements regarding the media or format of emission-related information, including J1930 and J2187. EPA believes media and format issues should be addressed at the same time J2008 (or an EPA-adopted format) is required. This will allow an opportunity for changes, as may be necessary, to be made in any of these documents, as J2008 is being finalized. EPA may address the media and format requirements of emission-related service information in a future proposed rulemaking.

#### H. Enhanced Diagnostic Information

*EPA Proposal:* To eliminate confusion that existed in the industry regarding the definitions of certain key terms (data stream information, functional control strategies, bi-directional control, and indirect information) and whether such information must be provided under section 202(m)(5), EPA held a workshop in July 1993, to provide an opportunity for comment on proposed descriptions and/or definitions for these terms to ensure that there is a uniform understanding throughout the automotive industry as to the information that manufacturers will be required to make available. The definitions proposed by EPA were as follows:

Data stream information are messages transmitted between a network of modules and/or intelligent sensors (i.e., a sensor that contains and is controlled by its own module) connected in parallel with either one or two communication wires. Messages on the communication wires can be broadcast by any module or intelligent sensor. Such information generally consists of messages and parameters originated within the vehicle by a module or

intelligent sensors. The information is broadcast over the communication wires for use by other modules (e.g., chassis, transmission, etc.) to conduct normal vehicle operation or for use by diagnostic tools. Data stream information does not include engine calibration-related information.

Functional control strategies are descriptions of how and when various engine systems operate. Typically, they are written explanations or flow diagrams that describe the interaction of the module and the various sensors and actuators as proscribed by the engine calibration. An example of a functional control strategy would be that for a particular fuel system. For example, the fuel system may not go into closed-loop operation until: (1) The engine coolant temperature has reached 180 °F; (2) the module observes an active oxygen sensor signal; and (3) 30 seconds has elapsed after reaching that temperature.

Bi-directional control is the capability of a diagnostic tool to send messages on the data bus that temporarily overrides the module's control over a sensor or actuator and gives control to the diagnostic tool operator. An example of bi-directional control is the ability to increase or decrease the idle speed by using the diagnostic tool to vary the idle by-pass motor. This allows a technician to quickly verify that the idle by-pass motor responds to commands from the module. Bi-directional controls do not create permanent changes to engine or component calibrations.

Indirect information is any information that is not specifically contained in the service literature, but is contained in items such as parts or other equipment provided to franchised dealers (or others).

In addition, the NPRM discussed providing service technicians with the information needed to determine that a component or system is correctly operating. EPA proposed that manufacturers include information on the normal operating conditions for properly functioning emission-related components or systems. EPA requested comment on the need to adopt this requirement as part of these rules, the best way to accomplish this, and any difficulties (for example, significant burden to the manufacturer) that could arise.

*Summary of Comments:* Manufacturers commented that the release of information needed to perform bi-directional control is restricted since product damage could result if control is improperly applied. GM asserted that if required to release this information, it would need to redesign systems to include safeguards

to prevent damage from improper use of control messages, or diagnose components using some other method.

Regarding the definition of data stream information, several manufacturers suggested that EPA's definition be modified, such that data stream information (1) include only emission-related information, (2) include only emission-related diagnostic information rather than information to conduct diagnosis and repair of normal vehicle operation, and (3) not include any recalibration or reprogramming information. GM commented that if data stream information is defined to include reprogramming software, it will be easy for aftermarket performance companies to build equipment to install unauthorized calibrations.

As to functional control strategies, Ford commented that it considers them to be proprietary information, because they are part of the engine calibration. Other manufacturers stated that such strategies are proprietary and they are not provided to dealers. GM asserted that any attempt by EPA to require manufacturers to divulge control strategies would exceed EPA's authority under section 202(m)(5) of the Act. The American Automobile Manufacturer's Association (AAMA) stated that numerous manufacturers already provide functional control strategies to the extent necessary for allowing effective repair of vehicles without divulging proprietary information. AAMA and Ford commented that since there are so many different engine configurations and vehicle models, it would be confusing for independent technicians to try and understand the multitude of control strategies and that this could lead to incorrect diagnosis and repair.

Regarding the proposed definition of indirect information, Ford recommended that it be modified to include only indirect information necessary to make emission-related diagnosis and repair. Other manufacturers commented that EPA's definition of indirect information should be modified to delete the phrase "contained in items such as parts or other equipment" and to read as follows: "Indirect information is any information that is not specifically contained in the service literature, but is provided to franchised dealers (or others) as a requirement for emission-related diagnosis and repair. It shall not include calibration, recalibration or reprogramming related information which is neither visible to the technician nor consciously used in diagnosis and repair of vehicles."

Saab commented that EPA's definition of indirect information is too broad to protect manufacturers and franchised dealers from unfair competition by aftermarket tool and equipment manufacturers and independent service providers, respectively. Saab does not agree that parts and equipment supplied to dealers contain supplementary information which is necessary to repair the emission control systems of a vehicle.

The aftermarket commenters asserted that functional control strategies, waveforms and bi-directional control are critical in the repair of emission-related problems. The commenters argued that many times there is no cause and effect relationship between a symptom and a failed part. According to the commenters, technicians rely on this type of information or the tools that utilize such information as the best method of pinpointing parts that have either failed or require adjustment. Independent technicians commented that having tools that perform bi-directional control would reduce diagnostic and repair times, as well as repair costs. The commenters asserted that unlike dealers with enhanced tools, independent technicians with generic tools only receive malfunction codes which are insufficient to diagnose the fault.

*Analysis of Comments:* Regarding the definition of data stream information, EPA agrees that for purposes of this rule, data stream information should include only emission-related information, since this rule is not intended to cover all vehicle operations. However, EPA's definition of emission-related (as discussed above) is broader than that requested by the manufacturers.

EPA also agrees that data stream information does not include recalibration and reprogramming information. However, as discussed below, recalibration and reprogramming information is subject to certain disclosure requirements. Manufacturers are required to provide reprogramming capabilities, but they are not required to make directly available actual calibration information, such as algorithms or values. Data stream information will obviously need to be provided indirectly to the aftermarket (as it is provided to dealers) in order to provide reprogramming capabilities, among other reasons.

If data stream information is made available to dealers, whether directly or indirectly, and is emission-related, then it must be made available to the aftermarket service industry, regardless of whether a manufacturer believes it is

of any value to a technician. Data stream information will probably be utilized by the aftermarket diagnostic tool industry to build generic diagnostic tools. If the aftermarket tool manufacturers determine that certain information is of no value, they won't have any incentive to use it. Manufacturers may provide such information to the aftermarket in the same indirect fashion they provide it to their dealers via the sale of tools so long as these tools are available at a reasonable cost, or they may provide it to aftermarket tool companies so that these companies can make tools.

Regarding bi-directional diagnostic control strategies, EPA agrees that safeguards which protect against potential damage or safety problems from bi-directional control are important and encourages all manufacturers to implement them into their diagnostic systems. EPA believes that requiring manufacturers to supply bi-directional control information to the aftermarket, including Equipment and Tool Institute (ETI) members, without adequate safeguards could create liability concerns for manufacturers regarding the safety of consumers and technicians who would be responsible for the diagnosing and repair of vehicles.

The liability issues are a concern because there is no requirement that an ETI member company must add safeguards to the tools that they build. Manufacturers also have no reasonable means by which they can ensure that safeguards would be correctly incorporated into aftermarket tools. EPA believes that manufacturers have an incentive to ensure that safeguards are properly incorporated and are perhaps better equipped to verify the functionality of these safeguards.

Since bi-directional control is an important part of vehicle diagnosis and repair, it is imperative that this capability be made available to the independent service industry as soon as possible. This means providing bi-directional information to ETI members so that they can make generic tools for the aftermarket.

Manufacturers assert that most bi-directional control safeguards exist in manufacturer diagnostic tools rather than in vehicle on-board computers. The manufacturers claim that by 1999, all vehicles will have safeguards designed into the on-board computer, thus eliminating any concerns regarding safety and liability issues that could arise from the use of aftermarket diagnostic tools with bi-directional capability. EPA agrees with the manufacturers that it is preferable to have safeguards in the on-board

computer, rather than in the diagnostic tool, especially if there is no requirement that generic tool manufacturers incorporate such safeguards in their tools. However, EPA does not believe it is reasonable or necessary to delay this requirement until 1999. Several manufacturers have indicated that they will have safeguards designed into their vehicles' on-board computers by 1997. EPA believes it is providing sufficient leadtime for other manufacturers to make any hardware changes that may be necessary. Therefore, beginning on January 1, 1997, a manufacturer can only provide bi-directional control to its dealerships if it has provided aftermarket companies with information to make tools that have the same bi-directional capabilities available to dealerships, or provided such capabilities directly to aftermarket technicians through provision of their own tools. Manufacturers will be required to make bi-directional information available for all model years beginning with 1994. However, for model years 1994-1996, where a manufacturer can prove that safeguards for bi-directional controls were only installed in tools, not in vehicle on-board computers, then that manufacturer may receive a waiver from producing bi-directional controls prior to the 1997 model year. However, no such waiver is available for other data stream information. If a manufacturer does not use bi-directional control or has certain bi-directional control capabilities that it does not supply to its dealers, the manufacturer will not be required to provide this capability to the aftermarket.

Regarding GM's comments that release of information needed to perform bi-directional control should be restricted since product damage could result if the control is improperly applied, such concerns should be equally true for providing such information to dealerships. If manufacturers are not concerned regarding possible damage by dealership technicians, they should not be concerned regarding damage from aftermarket technicians.

EPA disagrees with manufacturer comments that "indirect information" should not include calibration, recalibration or reprogramming information and that the definition should be modified by deleting the phrase "contained in items such as parts or other equipment." Section 202(m)(5) makes clear that any relevant information that is provided *directly* or *indirectly* to a dealership cannot be shielded from disclosure under section 208. Even if recalibration related

information is not provided directly to technicians nor consciously used in diagnosis and repair, such information, if contained in or made available through manufacturer tools, is a crucial element in the emission-related diagnosis and repair information provided by that tool. Therefore, it is indirect information which *must* be provided, either directly or indirectly, to the aftermarket, if it is emission-related.

Moreover, manufacturers may use changes to computer calibrations to fix mechanical malfunctions or to revise prior calibrations. In such cases, it is necessary for such information to be known to subsequent repair personnel in order to prevent subsequent repairs from causing increases in emissions.

EPA believes that much of the manufacturer equipment that a dealer uses for emission-related diagnosis and repairs possesses certain capabilities, such as being able to read fault codes, perform reprogramming or allow bi-directional control. The information that allows the manufacturer tools to perform such functions is indirect information that must be made available to the independent service industry.

As to Saab's comment that parts do not contain any supplementary information necessary to make emission-related repairs, EPA agrees. EPA has determined the language in subsection 202(m)(5) does not apply to information used to manufacture parts. Therefore, the references to parts will be removed from the definition.

EPA agrees with the commenters that there would be many functional control strategies with which independent technicians should familiarize themselves, and while this could be overwhelming, there is no evidence that the independent service industry wouldn't be up to the challenge. EPA believes that disclosure of functional control strategies would be beneficial in helping technicians to better understand the interactions of the on-board computer with the numerous sensors and actuators that comprise the varied emission control systems and thereby, help promote better and quicker diagnoses and repair of emission-related problems. However, at this time, EPA is only requiring manufacturers to supply functional control strategies directly to independent technicians if such strategies are supplied directly to their dealerships. To the extent such strategies are incorporated into a manufacturer's enhanced diagnostic tools, they must be made available to the aftermarket either through availability of manufacturer tools (at a reasonable price), or with appropriate

agreements to protect proprietary information, through generic tools.

As discussed in the Response to Comments document, EPA does not believe that this information has been shown to be needed for emission-related repairs and diagnosis at this time and release of at least some of this information may raise trade secrets concerns. It is EPA's position that if manufacturers believe this information is necessary to perform emission-related service they will provide this information to their dealerships and independent technicians. EPA will continue to review whether certain types of information should be made available to the repair community even if such information is not currently made available to authorized dealers.

*EPA Decision:* All emission-related data stream information made available to manufacturer franchised dealers (or others in the service industry) will be made available to the aftermarket, either through provision of manufacturer equipment and tools or through information provided to generic equipment and tool manufacturers with appropriate agreements to protect proprietary information. Beginning on January 1, 1997, a manufacturer can only provide bi-directional control to its dealerships if it has provided equipment and tool manufacturers with information to make diagnostic equipment with the same bi-directional control capabilities available to the dealerships, or provided such capabilities directly to independent technicians through provision of their own tools. Manufacturers are required to make bi-directional control information available for all model years beginning with model year 1994. However, for model years 1994-1996, where a manufacturer can prove that safeguards for bi-directional controls are only installed in tools not in vehicle on-board computers, then that manufacturer may receive a waiver from producing bi-directional controls for vehicles prior to the 1997 model year. However, no such waiver is available for other types of data stream information.

Functional control strategies will not be required to be made available to the aftermarket, except to the extent they are made available to authorized dealerships.

The reference to parts is deleted from the definition of indirect information. The definition of indirect information will now be "any information that is not specifically contained in the service literature, but is contained in items such as tools or equipment provided to franchised dealers (or others)."

### *I. Enhanced Diagnostic Tools*

*Summary of Proposal:* In the 1993 workshop notice, EPA indicated that according to section 202(m)(5) of the CAA, emission-related information provided by manufacturers indirectly to franchised dealers must also be provided to any person engaged in the repairing or servicing of motor vehicles. EPA stated that some manufacturers are or will be providing their dealers the ability to diagnose malfunctions and/or reprogram vehicle modules via enhanced diagnostic equipment. This equipment will not allow dealers to view the underlying computer codes, but will allow them to reprogram vehicles and use enhanced diagnostic information using the underlying code.

EPA believes that the enhanced diagnostic equipment provides franchised dealers indirectly with information that is needed to make emission-related diagnosis and repairs. EPA proposed to require that manufacturers offer their enhanced diagnostic equipment for sale to the aftermarket. This would enable manufacturers to comply with the requirements of section 202(m)(5) that information be made available to the aftermarket if it is made available to dealerships or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines while simultaneously protecting the proprietary interest of the manufacturers. It would also provide the aftermarket with the same capabilities as dealerships without divulging proprietary engine calibrations or recalibrations.

EPA proposed that manufacturers' enhanced diagnostic equipment be made available to the aftermarket at the same price at which it is sold to authorized dealerships. EPA believed that a reasonable price to charge the aftermarket is the same price at which the equipment is offered to franchised dealerships. Based on previous comments provided to EPA, EPA believed that manufacturers' enhanced diagnostic equipment are sold to dealerships independent of their franchise agreements. Therefore, the cost of such equipment can be readily determined or manufacturers could provide suggestions for determining the price of their equipment. EPA proposed to give manufacturers a one-year leadtime to prepare for aftermarket sales of enhanced equipment. EPA proposed that manufacturers must provide preliminary enhanced data stream information three months preceding model introduction, with final data

stream information to be released three months after model introduction.

*Summary of Comments:* Some manufacturers argued that EPA lacks the authority to mandate that they provide enhanced equipment or information to the entire vehicle maintenance industry concerning "special" or "enhanced" data streams or tools. Several manufacturers commented that the statute requires information be made available, not enhanced diagnostic tools. They stated that although such information may be provided by manufacturers to their franchised dealers, it isn't necessary to make use of OBD systems or to effectuate emissions control system diagnostics or repair. The manufacturers and NADA stated that a majority of franchised dealers make substantial monetary investments to purchase and train their technicians to use enhanced diagnostic equipment. They argued that EPA must not promulgate a regulation which would undermine these investments and in doing so place dealers at a competitive disadvantage with other segments of the vehicle maintenance industry.

According to Chrysler, the initiative for the company to invest in creating enhanced equipment is to ensure the economic viability of its dealerships. Without this incentive, Chrysler believes that such equipment will likely not be developed.

Several manufacturers asserted that reprogramming capability and proprietary non-emission-related information are an integral part of their enhanced diagnostic equipment. They argued that the design, development and distribution of a separate tool with only emission-related capabilities would be an unnecessary and costly burden for manufacturers.

They also noted that service information contained in manufacturer tools is similar to that which is contained in its service manuals, TSBs, recall notices, and other information which will be made available to the public through the various mechanisms proposed in the NPRM regarding service information availability.

Ford noted that nearly half of all its dealers do not have its Service Bay Diagnostic System (SBDS). Therefore, Ford believes dealers have no advantage in this area.

Ford expressed several concerns over any regulation that would require their SBDS to be made available to the aftermarket: (1) higher likelihood that improper calibrations could be installed on vehicles since manufacturers have no control over independent facilities; (2) the reprogramming capabilities of this equipment would provide a powerful

tool for aftermarket performance companies and competitors to reverse engineer the emissions control system which could result in tampering; (3) unauthorized or incorrect calibrations would increase manufacturer liabilities in failing government in-use compliance programs and customers failing I/M programs; and, (4) providing a tool which has the capability to reprogram the control module may make it impossible for manufacturers to meet EPA's tampering prevention provisions. (These issues are addressed in the recalibration/reprogramming section below.)

Several manufacturers stated that generic scan tools will provide the means by which the aftermarket industry can get very specific support for diagnosis and repair of emission-related systems and components. While Ford indicated it understands the need for generic tools in the aftermarket arena, it expressed concern that they provide adequate and accurate information and repair capabilities. Manufacturers asserted they cannot be held either directly or indirectly liable if such generic tools incorporate diagnostic protocols which could potentially result in misdiagnosis and/or unnecessary repairs. Further, they believe it would not be reasonable to require manufacturers to review and approve aftermarket diagnostic tools. Ford suggested that the manufacturers of aftermarket generic diagnostic tools assume full responsibility for the accuracy and completeness of their equipment and software, and that EPA enforce necessary sanctions if deficiencies are identified which result in improper diagnostics or repairs.

Toyota Motor Corporation (Toyota) commented that manufacturers should sell enhanced diagnostic tools to all persons who want to purchase them. However, Toyota indicated that contrary to EPA's proposal, such tools could not be sold to the aftermarket at the same price they are provided to franchised dealers, since the cost of establishing new trading routes and a handling system would increase the price of equipment to independent technicians. As a result, Toyota commented that if the Agency decides that the selling price from manufacturers to dealers must be the same as that to independent facilities, it would have to greatly increase the price to its franchised dealers.

The Automotive Service Industry Association (ASIA) commented that while EPA's proposal that manufacturers' enhanced diagnostic equipment be made available to the aftermarket at the same price it is made

available to franchised dealers has merit, limiting access to such manufacturer equipment alone will prove too costly and cumbersome for small repair facilities. ASIA asserted that under EPA's scenario, a small business currently servicing three lines of motor vehicles would be required to purchase three separate hardware/software systems if that business wishes to continue servicing its current customer base. According to ASIA, the cost of purchasing three individual systems (at a minimum estimated cost of \$40,000 per unit) would force that repair facility to either significantly increase prices or limit the types of vehicles serviced.

ASIA stated that this impact runs contrary to the intent of section 202(m)(5) as envisioned by Senator John Chafee, who stated during the floor debate that "the purpose of the amendment is to make sure the diagnostic equipment, the manuals, the techniques are available to, in effect, the local gas stations so they they will be more convenient for the automobile owner \* \* \*" Cong. Rec. S3272 (March 27, 1990). ASIA noted that then Senator Gore later added "we want the [manufacturers] to provide information which will allow competition in the aftermarket and allow small business operators to get in the repair business. Otherwise, you force vehicle owners to go only to the major automobile manufacturers' place of business. Consumers get frustrated; they have long waits; they have to pay high prices." Cong. Rec. S3272 (March 27, 1990). Therefore, ASIA asserted that to ensure independent facilities have the ability to service a range of vehicle makes, EPA should require that all diagnostic information provided to manufacturers of tools for vehicle manufacturers should be made available to the aftermarket. In doing so, ASIA believes that EPA would provide small businesses with the option of purchasing individual manufacturer diagnostic tooling systems or a single aftermarket system that possesses diagnostic capabilities for a variety of vehicle models.

One independent technician acknowledged that manufacturers deserve protections that may assist them in securing a return on their investment in equipment. To remedy concerns of the manufacturers, the commenter suggested that the manufacturers make known all of the information that is on the data stream to the aftermarket equipment manufacturers. These manufacturers could, through their own research, determine what diagnostic routines warrant investment to develop

and market. The commenter also expressed concern over the cost of enhanced equipment. According to the commenter, any such equipment that costs more than \$3,000 should be considered unavailable to independent technicians.

APAA commented that manufacturers will be correcting emission and driveability problems through the use of reprogramming tools. Without access to generic tools that perform the same function, APAA believes independent technicians will be unable to purchase manufacturer enhanced tools due to their high cost and will be in the unenviable position of being dependent on their biggest competitor, i.e., dealerships, for reprogramming services which are critical to emission repairs. APAA further noted that some manufacturers could not guarantee that their franchised dealers would provide reprogramming services to independent technicians in a timely manner.

One commenter noted that unlike dealers with enhanced tools, independent technicians with generic tools only receive malfunction codes which are insufficient to diagnose a fault. According to the commenter, this increases the time it takes to make a repair and the cost.

Aftermarket commenters indicated that independent technicians need access to diagnostic tools and equipment at the same time such tools and equipment are provided to dealerships.

*Analysis of Comments:* Contrary to manufacturer assertions, EPA believes it has the authority to require manufacturers to provide their enhanced diagnostic tools, because such tools contain important information that may be necessary for making emission-related repairs. Section 202(m)(5) of the Act is clear that if such information is provided either directly or indirectly to dealers, it is not covered by the confidentiality protection of section 208 and, therefore, must be provided to aftermarket technicians if it is information for making or diagnosing emission-related repairs. There is little question that the information provided by these tools is likely to increase the ability of a technician to diagnose and make appropriate repairs to vehicles and to make such diagnosis and repairs in considerably less time than it would take without such information. The legislative history clearly indicates that availability of diagnostic equipment was considered by Congress. Moreover, the legislative history clearly shows an intent that if dealerships have access to information that would allow relatively quick and low-cost diagnosis and repair

of vehicles, then the aftermarket should have access to the same information. Moreover, to the extent these advanced diagnostic tools may contain considerable information for making emission-related diagnoses and repairs that are not contained in written performance manuals and updates, the information contained in these tools is clearly covered by this rule.

Regarding Chrysler's argument that enhanced diagnostic tools have been developed to assist the economic viability of dealerships, it must be noted that a major reason for developing these tools has been to increase the ease and decrease the cost and time of repair for manufacturers' vehicles, which increases customer satisfaction. To the extent the wider availability of this information further increases ease of repair, then customer satisfaction is likely to increase further. Moreover, to the extent manufacturers wish to assist the economic viability of dealerships by preventing access by aftermarket technicians to emission-related information, that is exactly the type of behavior that section 202(m)(5) was designed to prevent.

To the extent manufacturers comment that this regulation will force them to either build different types of enhanced diagnostic equipment or to divulge certain information not otherwise required, EPA believes that manufacturers will have to make cost-related determinations regarding how to meet this requirement. If any costs are necessary to ensure that emission-related information is provided to the aftermarket to the extent it is provided to dealerships, then section 202(m)(5) requires that such costs be incurred. Moreover, Ford's statement that some of its dealers do not have access to its SBDS system, and that therefore the aftermarket should not have access to the information in that system, is not consistent with section 202(m)(5). The fact that Ford dealerships could choose to avail themselves of this information dictates that aftermarket technicians must have such a choice.

In general, statements of manufacturers regarding the complexity of control strategies and diagnostic information support the need for this information to be made available. The aftermarket must have access to this type of information precisely because vehicle repair has become such a complex and intricate procedure. Without such information, aftermarket technicians would be operating under a significant disadvantage compared to dealerships.

Providing such tools to the aftermarket should not unfairly

jeopardize the economic viability of dealerships. Dealerships already have access to these tools and to manufacturer training and other opportunities not provided to the aftermarket.

Nevertheless, EPA is not requiring manufacturers to make their enhanced diagnostic equipment available to the aftermarket. The primary reason being that the cost of purchasing such equipment for more than twenty manufacturers would be cost-prohibitive for most, if not all, independent technicians. The total cost would likely make the equipment practically unavailable to independent technicians.

However, manufacturers are required to ensure that the underlying emission-related information contained in their enhanced diagnostic equipment is provided to the aftermarket in a reasonable manner. Manufacturers are, therefore, required either to make their advanced diagnostic tools and equipment available at a reasonable cost to independent technicians or to make available to aftermarket tool and equipment companies any and all information, except calibrations and recalibrations, needed to develop and manufacture generic tools that can be used by independent technicians to diagnose, service and repair emission-related parts, components and systems.

Section 202(m)(5) states that information for making emission-related diagnosis and repair that is made available either directly or indirectly to dealerships must also be made available to the aftermarket. Any such information provided to dealerships is not proprietary as defined in the CAA. Much of the service and repair information made available to dealerships is done so by its incorporation into diagnostic tools and equipment. To ensure that independent technicians have the same or similar capabilities, manufacturers are required to either provide the information necessary to make such tools and equipment to tool and equipment companies or to make manufacturer tools and equipment available at a reasonable cost (i.e., sold competitively in the marketplace). The reasonable cost requirement is necessary to ensure that the tools and equipment are "available" to the aftermarket.

EPA is not requiring that information provided indirectly to dealerships be provided directly to aftermarket technicians. Where such information contains proprietary materials, EPA is only requiring that such information be provided to aftermarket technicians in the same manner that it is provided to



dealerships. Manufacturers may require that tool and equipment manufacturers to whom such information is provided agree to ensure that such information remains proprietary.

EPA recognizes that manufacturers cannot exert sufficient control over tool and equipment manufacturers to ensure that generic tools and equipment properly incorporate diagnostic information. Therefore, the Agency will not hold manufacturers responsible for the tools and equipment produced by other companies.

As discussed in the section on reprogramming, manufacturers may sell their own reprogramming tools to independent technicians, rather than having such information provided by aftermarket tool and equipment companies, if the price of such tools is reasonable.

Manufacturers may, if they wish, also sell their enhanced diagnostic equipment and/or provide the information necessary to build reprogramming tools to aftermarket tool and equipment companies. The sale of manufacturer enhanced diagnostic equipment for a reasonable cost would be sufficient to comply with the requirements for enhanced diagnostic information under these regulations.

Vehicle manufacturers are required to make emission-related diagnostic and service information utilized by aftermarket tool and equipment companies available to such companies no later than the date of model introduction. This will allow adequate time for such companies to incorporate the information into generic tools and make it available to independent technicians in a timely manner. Revised information is required to be provided to aftermarket tool and equipment companies as it becomes available.

*EPA Decision:* Manufacturers are required to make available to aftermarket tool and equipment companies any and all information, except calibrations and recalibrations, needed to develop and manufacture generic tools that can be used by independent technicians to diagnose, service and repair emission-related parts, components and systems.

In the alternative, manufacturers may sell their enhanced diagnostic equipment to aftermarket technicians for a reasonable price. The sale of manufacturer enhanced diagnostic equipment for a reasonable cost would be sufficient to comply with the requirements for enhanced diagnostic information under these regulations.

As to emission-related diagnostic and service information utilized by aftermarket tool and equipment

companies that make generic tools which perform the same or similar functions as those provided by manufacturers to their dealerships, the Agency believes that such information should be provided at the time of model introduction. This will allow adequate time for its incorporation into tools and equipment.

#### *J. Recalibration/Reprogramming*

*Statement of Proposal:* EPA proposed that, consistent with the Act, "all information" needed to make emission-related repairs be made available to the automotive service industry, including recalibration information. An engine calibration is the set of instructions the computer module uses for operating many of the engine systems (e.g., fuel and ignition). These instructions are made up of preset values and algorithms that are located in a computer chip. Recalibration is the act of revising the preset values and/or algorithms for an existing engine calibration in a particular vehicle model/engine configuration. Reprogramming is the act of installing a "new" engine calibration (i.e., a recalibration) into the module of a specific vehicle.

*Summary of Comments:* Manufacturers asserted several reasons why they should not be required to make available recalibration information or reprogramming capability: (1) Recalibrations are saleable parts and not "information" within the meaning of section 202(m)(5) of the CAA; (2) reprogramming is not a repair action; (3) reprogramming is not "necessary" information; (4) reprogramming is not "emission-related"; (5) recalibration and reprogramming information are proprietary information protected under section 208; (6) the CAA does not require manufacturers to make available engine calibration information for aftermarket parts manufacturers to effectively design emission-related parts; (7) providing reprogramming capabilities to independent technicians would impair the manufacturer's ability to maintain tamper resistant systems; (8) independent technicians would be unable to understand the intricacies of each of the different manufacturer systems; and (9) the potential for problems, such as increased emissions, poor vehicle performance, and warranty and recall liability that could result from the release of recalibration information. Manufacturers asserted that aftermarket service providers could take vehicles to franchised dealerships to have them reprogrammed.

In contrast, the automotive aftermarket unanimously cited the need for independent technicians to have the

capability to perform reprogramming. They commented that any procedure that has the effect of limiting the ability of independent technicians to make repairs is contrary to the CAA and Congressional intent. They further questioned EPA's authority to allow recalibration information to be within the exclusive province of dealers on the basis that that was not the intent of Congress. According to the commenters, if the aftermarket is not allowed to perform reprogrammings, the aftermarket will gradually be removed from performing emission-related repairs, including driveability repairs.

Some commenters stated that the only useful information to aftermarket parts manufacturers would be access to underlying recalibration information. APAA commented that engine calibration information is required for the effective production and testing of replacement parts. The Specialty Equipment Manufacturer's Association (SEMA) asserted that although aftermarket parts manufacturers would not necessarily need direct access to manufacturer proprietary information, some type of secure access to manipulate calibrations in developing and testing aftermarket parts will be essential to the survival of the independent parts and service industry. They argued that by not allowing such access, EPA would put some people out of business by eliminating the ability to make modifications to vehicles.

Aftermarket comments asserted that the marginal risk of tampering could be addressed by various methods, including restricting how recalibrations are performed (e.g., using a modem link to receive recalibration information) or specifying qualifications which all technicians must meet to obtain recalibration data.

*Analysis of Comments:* EPA disagrees with the commenters that recalibration information is a part. There are several reasons for the Agency's position on this issue. First, service people do the reprogramming, not parts departments. Second, one doesn't need to order the "part," it is in the diagnostic machine and just needs to be downloaded. Third, there are no parts cost for "installation," only service costs. Fourth, entering a recalibration does not physically change a vehicle, only the data (information) on the computer. Fifth, in their comments, manufacturers refer to recalibrations as "information."<sup>13</sup> Sixth, parts can be sent to a mechanic via, e.g., UPS, as they

<sup>13</sup> For example, Chrysler Corporation Response to EPA Request for Supplemental Comments on OBD Systems, June 28, 1992, and Ford Motor Company Written Comments, July 31, 1992.

are sent to a dealer by a manufacturer, or as a dealer can send to a mechanic. However, reprogramming can only occur at a dealership or other facility which has the necessary equipment to perform a reprogramming event. In addition, the change made to a vehicle by reprogramming is a change to "data" within the vehicle. In effect, the tool is communicating with the computer in the vehicle, telling it to do something different. This appears to be information.

Finally, though parties may argue whether the data being downloaded into the vehicle is a "part" or "information" or both, it is clear to EPA that the current situation, in which dealerships can make manufacturer-suggested repairs to vehicles using data provided by manufacturers to dealerships, but not to independent technicians, is exactly the type of situation that Congress intended to be rectified by section 202(m)(5).

EPA believes that reprogramming is a repair action. The entire purpose of reprogramming vehicle computers is to "repair" certain problems discovered in the vehicles. EPA believes that the key issue is whether independent service providers are being prevented from doing what dealerships are allowed to do due, in part, to lack of information. EPA believes that reprogramming events should be considered repairs under the statute, especially since such reprogramming is being done as a result of recommendations offered by a manufacturer in order to change some aspect of the vehicle that the manufacturer believes was initially incorrectly produced.

Both Ford and Chrysler state that reprogramming information is not "needed" as that word is used in section 202(m)(5).<sup>14</sup> Yet, even presuming, for the sake of argument, that EPA should only mandate disclosure of emission-related information that is "necessary,"<sup>15</sup> no manufacturer makes clear how such information is not necessary to accomplish the reprogramming of the vehicle. Whether the vehicle is reprogrammed by a dealer or an aftermarket technician, the repair person must have the information to make the repair. EPA does not believe that the "instructions" for making emission-related diagnosis and repairs is limited to "go see your local dealer." The information necessary to make the

repair must be in the possession of the aftermarket to the same extent it is in the possession of dealers.

Moreover, as EPA is only requiring information to be produced regarding recalibrations offered by a manufacturer, it is hard to understand how such reprogramming events would not be "necessary" events to repair the vehicle. A manufacturer would presumably not offer such recalibrations unless it found a feature of the vehicle that it felt needed to be changed.

The Agency disagrees with statements that reprogramming is not "emission-related." Though certain reprogramming events may have no emission-related effects, EPA believes that numerous reprogramming events will have such effects. First, the docket indicates that certain calibrations are directly intended to fix problems related to the emissions of the vehicles. Though these calibrations may be covered in a manufacturer's warranty, there is no assurance that a proper recalibration will occur during the warranty period. Thus, providing independent technicians with the ability to provide such reprogramming would not be an unnecessary endeavor.

In addition, recalibrations to fix driveability problems will also have emission-related effects. As discussed elsewhere, "emission-related" repairs are not limited to repairs of the emission control system or repairs necessary to make use of the OBD system.

As EPA discusses above in the section on the definition of "emission-related," the correction of driveability problems can often have an emissions impact. This potential for increased emissions is heightened when cumulative recalibrations occur within an engine family. Therefore, EPA is requiring that all reprogramming events that are emission-related, as that term is defined above, including reprogramming actions occurring for primarily reasons of drivability, must be made available to independent technicians.

Contrary to comments made regarding recalibration information being proprietary, the Agency believes that where a manufacturer provides such information to some or all of its dealers, such information cannot be considered proprietary under section 202(m)(5). The Act specifically requires that any information provided directly or indirectly to dealerships must also be provided to anyone who services or repairs vehicles.

Contrary to manufacturer arguments that dealership employees don't receive recalibration data because they can't see it due to the form in which it is provided to them, EPA believes that

where a manufacturer provides dealerships with machines that hold such information or can disseminate such information and where these machines allow dealerships to use such information to repair vehicles, such information is being provided indirectly to dealerships, and thus must be made available to independent technicians in a similar manner.

In response to Ford's comment that it opposes any requirements which mandate that it make available all detailed emissions recalibrations, EPA is only requiring that reprogramming capability be made available, not direct calibration codes. As discussed below, EPA does believe that the internal computer codes within the vehicle control modules are proprietary, as such material is not released to dealerships. EPA, therefore, is not requiring direct disclosure of the recalibration data itself. EPA does not believe that manufacturers should be forced to provide unprotected proprietary information directly to aftermarket technicians merely because it has provided such material indirectly to its dealers, especially where such information is provided to dealers in a protected fashion, such that even the dealers could not assess the underlying information. Some manufacturers have gone to considerable lengths to prevent direct disclosure of this information even to its dealers; therefore, EPA will not require such information be provided directly to the aftermarket.

Rather, EPA is allowing the manufacturers to indirectly provide this data to independent technicians in the same or similar fashion as they provide this data to dealership technicians by offering independent technicians reprogramming capabilities to the same extent manufacturers offer such capabilities to their own dealers. This will help ensure that independent technicians remain competitive with dealerships as intended by section 202(m)(5).

EPA agrees with comments from the aftermarket that, based on the language of section 202(m)(5) of the CAA and its legislative history, Congress intended independent technicians to have all the information necessary to make emission-related repairs, including reprogramming capabilities, that are available to dealerships or others. Congress wanted to ensure the continuation of a competitive marketplace, thereby providing consumers with an option as to where to have their vehicles serviced. In addition to the reprogramming capability, manufacturers will also be required to publish information as to

<sup>14</sup> One reason they give is that such information is not emission-related. We discuss this issue below.

<sup>15</sup> The term "needed" does not modify the clause referring to "such other information including instructions for making emission related diagnosis and repairs."

when recalibrations are issued, since such information can impact other repairs. Also, EPA expects that some independent technicians will not want to obtain reprogramming capability, but will want to know when such service is necessary so that they can take vehicles to the dealerships for such service or refer customers to seek dealership service on their own.

EPA also agrees with comments indicating that there are significant practical competitive disadvantages to the aftermarket if only dealers can reprogram and that, in the future, many vehicle functions may be controlled through recalibration data. Also, unless a secure means for the aftermarket to obtain reprogramming is found, a substantial amount of maintenance and repairs could be channeled to dealerships who would have a significant information advantage.

The Agency agrees that manufacturers that do not provide reprogramming capabilities to their dealers through the use of electronically erasable computer chips and do not provide recalibration information to other parties do not have to provide recalibration information or reprogramming capability to independent technicians.

The Agency agrees with the manufacturers that section 202(m)(5) does not require manufacturers to provide calibration, recalibration or design information to aftermarket parts manufacturers. The purpose of this provision is to ensure that independent technicians have access to information needed to service and repair vehicles, thereby ensuring consumers with freedom of choice in where to take their vehicles for repairs. See Statement of Senator Gore, 136 Cong. Rec. S3271-2 (March 27, 1990) ("If we are going to mandate a new onboard diagnostic system, we must give consumers the freedom to choose where they will go to have these systems *maintained and repaired.*" [emphasis added]) Manufacturers are only required to provide reprogramming capabilities to persons who service and repair vehicles, i.e., independent technicians. They are not required to provide recalibration information to other parties.

EPA disagrees with the assertion from aftermarket commenters that section 202(m)(5) is intended to provide for the release of calibration or parts specification information to parts manufacturers. Nothing in the language of the statute itself or in the legislative history indicates that Congress was interested in assuring access and information for the manufacture of aftermarket parts. On the contrary, the legislative history speaks only of the

need to ensure equal access for vehicle *repair* facilities. The language was clearly meant to ensure that such repair facilities have equal information to make emission-related diagnosis and repairs as have the manufacturers' dealerships.

This is why the Congress limited the coverage of section 208(c) (providing that trade secrets need not be made available) to information not provided to dealerships. There is no information indicating that underlying computer data is provided to dealerships. In fact, as discussed above, manufacturers have attempted to protect such information from disclosure. Though the language of section 202(m)(5) does refer to any information provided directly or indirectly to dealers, EPA does not believe that Congress intended to require that information provided to dealers only indirectly, and using secure methods, must be provided directly, without protection, to aftermarket parts dealers. The legislative history clearly shows that Congress had no intention of requiring the release of proprietary information. In fact, the House Report specifically gives as its reason for the trade secrets language the fact that "the computer software can include very sensitive data." House Report at 306. In short, section 202(m)(5) was designed to ensure information already in the public domain was given to all repair providers; it was not designed to expose manufacturers to the divulgence of their most sensitive proprietary information.

Further, EPA has received no information that this information is needed by repair personnel to repair vehicles. There has been no information showing that repair personnel need to see underlying computer codes in order to fix vehicles. This is evidenced by the fact that there have been many comments indicating that service people have no use for such underlying information and would likely not know how to use it if they had access to it.

Aftermarket parts manufacturers commented that engine calibration information is required for the effective production and testing of replacement parts to ensure that they will meet the exacting needs of both current and future engines. Even presuming that this allegation is true, this regulation does not prevent parts manufacturers from obtaining such information. Parts manufacturers can enter into any number of special arrangements with the manufacturers to obtain the desired information. Further, parts manufacturers will be able to make parts in the same manner as they always have.

Parts manufacturers have been making such parts for many years, even as vehicles have become more and more complicated. Though the introduction of OBD will continue the trend of making cars more complex and, therefore, require manufacturers and aftermarket parts manufacturers to meet more exacting standards, it does not require a new regime for providing information for the manufacture of replacement parts. Nor does section 202(m)(5) require such a new regime.

Vehicle manufacturers expend substantial resources to develop these intricate programs. Manufacturers may be justified in their hesitance to allow such information to be freely distributed, especially without proper arrangements. Congress could have extended the reach of section 202(m)(5) to include parts manufacturers. It did not. Given the fact that aftermarket parts manufacturers appear to need information of a more proprietary nature than that of aftermarket repair personnel, it appears that EPA would be going beyond Congressional intent in requiring that such information be provided.

Moreover, SEMA states that the aftermarket industry needs underlying recalibration information to be capable of modifying existing programs on vehicle computer chips. It is just these changes to computer calibrations that trouble manufacturers and also trouble EPA. Where a single entity, the manufacturer, is responsible for programming and updating the vehicle computer, it is relatively easy to determine which computer calibration is on, or should be on, a vehicle. Manufacturers go through a rigorous mandatory certification process to assure EPA of emission compliance of their various calibrations over the useful life of their vehicles. When various part manufacturers are changing calibrations to meet the needs of their parts, then it is more difficult to determine what the proper calibration of the vehicle should be. Moreover, if a subsequent repair person repairs the same vehicle using the instructions generally appropriate for such a vehicle, such a subsequent repair may result in unintended consequences that could impair the emissions (or drivability) performance of the vehicle, especially if the new aftermarket calibration is not made obvious to the subsequent repair person. Also, such aftermarket recalibrations may prevent the manufacturer from instituting later recalibrations on the vehicle, because the newest manufacturer recalibration may be inconsistent with the aftermarket part. Finally, such aftermarket recalibrations

could possibly constitute tampering, depending on the emissions result of the recalibration. (This is also true for manufacturer recalibrations; however, if manufacturers are the only parties issuing recalibrations, such problems are easier to enforce.) This is not to say that EPA intends on preventing such aftermarket recalibrations or even manufacturer recalibrations. However, if EPA's concerns regarding the emissions result of such recalibrations increase as it receives further data on the subject, EPA may determine that certain steps must be taken (possibly in the form of a mandatory certification program) to ensure that recalibrations are consistent with the Act and to preserve emission performance of vehicles.

One of the more frequently cited comments by the manufacturers was that reprogramming should be restricted to dealerships for reasons of security. However, EPA received no evidence that tampering is necessarily less likely to occur if reprogramming is limited to dealership employees, which according to NADA constitute more than one million individuals (including one-third of all technicians) at over 23,000 dealerships nationwide.

The Agency believes that if the appropriate security measures are instituted for reprogramming, the risk of tampering would be virtually the same for independent technicians and dealership employees.

EPA questions manufacturer comments to the effect that they can ensure the security of recalibration information as long as it is provided only to dealerships. The manufacturers failed to provide any data from prior actions against dealerships to substantiate the assertion that manufacturers can prevent their dealerships from engaging in undesired activities. Also, EPA is not forbidding manufacturers from using contractual and other arrangements to protect against inappropriate use of the reprogramming equipment.

EPA is encouraged that the aftermarket industry recognizes that as a result of providing independent technicians with reprogramming capabilities there is some concern over the potential for tampering. EPA also appreciates the many suggestions made by the aftermarket to reduce the potential for tampering. However, EPA believes that manufacturers should be allowed to develop and implement the systems which they believe are most secure, such as encryption systems, taking into consideration the amount of reprogramming they perform and available technology. If EPA subsequently determines that security

and tampering concerns develop into a problem due to the release of this information, EPA may require other measures to limit tampering and to prevent emissions increases.

EPA disagrees with comments regarding the inability of independent technicians to correctly perform reprogramming. First, the new electronic systems are too complex for independent or any other technicians to indiscriminately alter. Second, based on EPA observations, reprogramming according to manufacturer instructions is not a difficult task. Procedures could be easily detailed in manufacturer repair manuals as they typically are for other repairs. Therefore, any training need to perform reprogramming should be minimal. If manufacturers believe that extra training is necessary prior to technicians performing reprogramming, then they should make available whatever training materials they believe are necessary to ensure that independent technicians can properly perform reprogramming.

EPA believes that manufacturer concerns over warranty and recall responsibilities for vehicles that might be recalibrated improperly by independent technicians are unfounded. Manufacturers will be in control of the process by which reprogramming is provided. In addition, as discussed earlier, the task of reprogramming is not difficult.

EPA believes that any increasing danger of undetectable tampering would be more a result of the proliferation of reprogrammable computer chips than it is a result of who repairs vehicles. The proliferation of reprogrammable computer chips is in the control of the manufacturers who can elect not to use reprogrammable chips or who can provide many other safeguards short of a permanent bar against reprogramming by aftermarket technicians. This possibility of increased tampering may also provide an incentive for manufacturers to minimize the amount of manufacturer-ordered reprogramming that occurs.

In addition, EPA never indicated that manufacturers would be responsible for reimbursing owners or independent technicians for reprogramming performed outside a dealership. EPA also has a difficult time understanding how allowing independent technicians to perform reprogramming recommended by the manufacturer would be a disincentive for owners to seek future emission-related repairs, since almost all manufacturer commenters indicated that such repairs occur during the warranty period and

are, therefore, likely to be performed by dealerships.

EPA believes that GM's comments mis-state the competitiveness concerns of a level playing field expressed by Congress. With the advent of erasable computer chips, dealers can perform reprogramming in minutes, while independent technicians, if forced to return a vehicle or its module to a dealer for reprogramming, would be at a significant time and cost disadvantage. According to one manufacturer, it is difficult to predict how long an independent technician would have to wait at a dealership to have a reprogramming event performed on a vehicle brought in by the independent technician. The manufacturer indicated that an independent technician might have to wait four to five days.

EPA agrees with the aftermarket commenters that forcing independent technicians to return computers to dealers for reprogramming requires excessive manpower, would result in loss of income due to delays, is onerous and unnecessary. In addition, the Agency believes that requiring independent technicians to do so does not constitute access to repair information as conceived by Congress in section 202(m)(5) of the CAA.

EPA agrees with the example provided by an aftermarket commenter regarding one of the differences to independent technicians as to the difference between replaceable computer chips and erasable computer chips and any requirement that independent technicians return an electronic control module (ECM) to a dealer for reprogramming. Where an independent facility buys a computer chip from a dealer, the vehicle remains operable while the repair facility searches for the part, orders the part, and transports the part. However, if an independent facility would have to remove the computer from a vehicle and take it to an authorized dealer to have it reprogrammed, the affected vehicle is not operable. Even ignoring the potential for lack of cooperation by a dealership to provide reprogramming, the cost to independent technicians and the inconvenience to their customers could be substantial.

There is also concern, as expressed by ETI and others about the damage that could result from transporting exposed electronic parts, which are very sensitive to static electricity, physical damage, and fluids, including water. As ETI noted, a computer module that starts out needing only a reprogramming service may need replacement simply because it was transported to a dealer and damaged along the way.

*EPA Decision:* EPA has determined that recalibrations are information covered under section 202(m)(5) if they are provided to dealerships to reprogram vehicles. EPA recognizes that this information is not visible to the dealerships and is provided for the purpose of allowing dealers to perform reprogramming. EPA believes that allowing manufacturers to provide similar reprogramming capabilities to independent technicians (and not the recalibrations themselves) comports with the language and intent of section 202(m)(5).

Effective December 1, 1997, manufacturers are required to:

(1) make available to independent technicians all emission-related reprogramming events (including driveability reprogramming events that may affect emissions) that were issued prior to December 1, 1997, by manufacturers and made available to dealerships for MYs 1994 through 1997; and

(2) for reprogramming events that are issued on or after December 1, 1997, make available to independent technicians all emission-related reprogramming events (including driveability reprogramming events that may affect emissions) issued by manufacturers for 1994 and later MY vehicles at the same time they are made available to dealerships.

For each MY, reprogramming need not be provided for recalibrations performed prior to vehicles entering the stream of commerce (i.e., sale to first purchaser).

If a manufacturer can demonstrate, to the satisfaction of the Administrator, that hardware would have to be retroactively installed on vehicles to meet security measures implemented by the manufacturer, the manufacturer may request a waiver from the reprogramming requirements for model years 1994 through 1996.

EPA is providing manufacturers until December 1, 1997, to adopt and implement security measures, such as encryption or other measures, that address tampering concerns and concerns regarding proprietary information. This leadtime will also allow manufacturers to work out logistical issues related to making reprogramming available to the potentially large numbers of independent facilities that may be interested in receiving this capability. Though EPA is allowing security measures to be implemented by manufacturers, such measures are not being required by these regulations. EPA believes that manufacturers are best able to determine the extent to which the

release of this information will endanger the proprietary nature of the underlying information and/or potentially lead to tampering.

Any method adopted by a manufacturer by which reprogramming will be made available to independent technicians cannot impose a significant burden on independent technicians beyond that experienced by dealerships. For example, manufacturers can sell reprogramming tools directly to independent technicians or enter into agreements with aftermarket tool companies whereby the manufacturers provide the tool companies with the information necessary to build reprogramming tools. In conjunction with one of these options, manufacturers could transmit reprogramming events directly to independent technicians by modem from a main frame or provide them with CD ROMs. The use of a main frame to make reprogramming available would enable manufacturers to monitor certain data, such as who is performing reprogramming and the type of reprogramming that is being requested. In formulating its method of making reprogramming available to independent technicians, a manufacturer may request to meet with EPA to discuss whether the method comports with the requirements of this rule. In the context of avoiding a significant burden on independent technicians, EPA notes that a manufacturer reprogramming-only tool should be compatible with generic portable computers (PCs), or other technology in widespread use in the future, so that independent technicians are not required to purchase numerous types of PCs to access each manufacturer's reprogramming tools.

EPA is concerned that there may be a risk of increased tampering with the OBD system once it is integrated with the I/M test. However, EPA believes that the manufacturers have sufficient incentives to adopt measures that maximize security and protect the OBD system from tampering. At this time, therefore, EPA is not requiring that manufacturers adopt security measures. If there is evidence of tampering that can't be prevented through EPA's enforcement authority, EPA may find it necessary to promulgate more stringent regulations to ensure that the integrity of OBD systems is maintained. Such regulations could include various options, such as mandatory aftermarket parts certification, banning erasable computer chips, or security measures.

## K. Regulatory Flexibility Analysis

*Summary of Proposal:* The Regulatory Flexibility Act of 1980 requires Federal agencies to identify potentially adverse impacts of Federal regulations upon small entities. In instances where significant impacts are possible on a substantial number of these entities, agencies are required to perform a Regulatory Analysis. EPA has determined that the regulations finalized today will not have a significant impact on a substantial number of small entities. This regulation will primarily affect manufacturers of motor vehicles and motor vehicle engines, a group which does not contain a substantial number of small entities.

*Summary of Comments:* Chrysler commented that EPA's conclusion that an RIA is not required is fatally flawed. Chrysler asserted that the proposed regulations will impact over twenty thousand small businesses, i.e., dealers, through major effects on their future business and profitability. Chrysler stated that dealerships carry costs and overhead which are not faced by aftermarket repair shops. Chrysler believes that any regulation which diminishes the ability of dealerships to effectively compete, by lessening their ability to meet costs imposed by the nature of the business, clearly constitutes a significant impact on those businesses, required to be assessed by the Administrator by law.

NADA also commented that EPA's regulatory impact analysis appears to have failed to take into account the significant potential impact its proposed regulations will have on franchised dealership service operations. NADA asserted that several provisions in the proposed rule will result in potentially costly anti-competitive impacts on dealerships. NADA stated its member dealerships are very concerned that the EPA proposal will serve to undermine the franchise relationship that exists between dealers and manufacturers. The proposal as written threatens the huge investments NADA dealerships have made in equipment, technician training, and information systems by putting dealers at a competitive disadvantage with those segments of the vehicle maintenance industry who have not made similar investments. As required by the Regulatory Flexibility Act, NADA argued it is incumbent upon EPA to consider these impacts during the development of its final OBD rule. NADA submitted that this is of particular importance considering the currently dire economic condition of a

large number of franchised dealerships across the country.

*Analysis of Comments:* This rulemaking directly affects only vehicle manufacturers, which are not small businesses. Therefore, no regulatory flexibility analysis is necessary. The secondary effects that these regulations may have on particular smaller businesses (i.e., dealerships), which would not be increases in burden, but loss of sole access to information, should be minor. Moreover, these regulations generally maintains the status quo that currently exists between dealerships and independent technicians. Today's regulations should not greatly affect dealerships or independent technicians, since the vast majority of the emission-related information required by this rule has, according to commenters, long been provided voluntarily by the manufacturers. In its comments submitted August 13, 1993, Association of International Automobile Manufacturers, Inc. (AIAM), for example, stated that in spite of the fact that there have been no requirements mandating the availability of service information, nearly all manufacturers have made information readily available. According to AIAM, the aftermarket asserts such information is not available, because they are unwilling to pay the fair cost of the information.

Other small businesses (i.e., independent technicians) are also not directly regulated by this rulemaking. Moreover, according to the statements of many commenters, any secondary effects from these regulations are likely to be minor, as much of the information required to be made available under this rulemaking is, according to the commenters, already available to the aftermarket.

Aftermarket parts manufacturers, whose products are not covered by the information availability requirements of section 202(m)(5), will be in the same position following the effective date of this rule as they were before the effective date. They will be able to design, develop and manufacture parts as before or they can enter into agreements with the manufacturers to purchase design specifications.

*EPA Decision:* A regulatory flexibility analysis is not required, since there is no significant impact on affected entities.

## V. Administrative Requirements

### A. Administrative Designation

Under Executive Order 12866, [58 **Federal Register** 51,735 (October 4,

1993)] the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or,

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers this a "significant regulatory action" within the meaning of the Executive order. EPA has submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

### B. Impact on Small Entities

The Regulatory Flexibility Act of 1980 requires Federal agencies to identify potentially adverse impacts of Federal regulations upon small entities. In instances where significant impacts are possible on a substantial number of these entities, agencies are required to perform a Regulatory Flexibility Analysis. EPA has determined that the regulations finalized today will not have a significant impact on a substantial number of small entities. This regulation will also positively affect independent repair shops and mechanics. The standardization requirements contained in these regulations will enhance the ability of independent mechanics to diagnosis and repair malfunctions.

Therefore, as required under section 605 of the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.* I certify that this regulation does not have a significant impact on a substantial number of small entities.

### C. Unfunded Mandates Act

Section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must

prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in expenditure by State, local, and tribal governments, in the aggregate; or by the private sector, of \$100 million or more. Under Section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that the action promulgated today does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local or tribal governments in the aggregate, or to the private sector. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

### D. Electronic Copies of Rulemaking Documents

Electronic copies of the preamble and the regulatory text of this direct final rulemaking are available on the Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network Bulletin Board System (TTNBBS). Instructions for accessing TTNBBS and downloading the relevant files are described below.

TTNBBS can be accessed using a dial-in telephone line (919) 541-5742 and a 1200, 2400, or 9600 bps modem (equipment up to 14.4 Kbps can be accommodated). The parity of the modem should be set to N or none, the data bits to 8, and the stop bits to 1. When first signing on the bulletin board, the user will be required to answer some basic informational questions to register into the system. After registering, proceed through the following options from a series of menus:

(T) Gateway to TTN Technical Areas  
(Bulletin Boards)

(M) OMS

(K) Rulemaking and Reporting

At this point, the system will list all available files in the chosen category in chronological order with brief descriptions. File information can be obtained from the "READ.ME" file. To download a file, the user needs to choose a file transfer protocol appropriate for the user's computer from the options listed on the terminal.

TTNBBS is available 24 hours a day, 7 days a week except Monday morning from 8-12 Eastern Time, when the system is down for maintenance and backup. For help in accessing the system, call the systems operator at

(919) 541-5384 in Research Triangle Park, North Carolina, during normal business hours Eastern Time.

**E. Paperwork Reduction Act**

The information collection requirements in this rule have been approved by the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and have been assigned control number 2060-0104.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Chief, Information Policy Branch; EPA; 401 M St., S.W. (Mail Code 2136); Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

**F. Display of OMB Control Numbers**

EPA is also amending the table of currently approved information collection request (ICR) control numbers issued by OMB for various regulations. This amendment updates the table to accurately display those information requirements contained in this final rule. This display of the OMB control number and its subsequent codification in the Code of Federal Regulations satisfies the requirements of the *Paperwork Reduction Act* (44 U.S.C. 3501 *et seq.*) and OMB's implementing regulations at 5 CFR part 1320.

The ICR was previously subject to public notice and comment prior to OMB approval. As a result, EPA finds that there is "good cause" under section 553(b)(B) of the Administrative Procedure Act (5 U.S.C. 553(b)(B)) to amend this table without prior notice and comment. Due to the technical nature of the table, further notice and comment would be unnecessary. For the same reasons, EPA also finds that there is good cause under 5 U.S.C. 553(d)(3).

**VI. Authority**

Statutory authority for the proposed emission standards is provided by sections 202(a), 202(m), 208(c), 301(a), and 307(d) of the Clean Air Act, as amended, 42 U.S.C. 7521(a), 7521(m), 7542(c), 7601(a), and 7607(d).

**List of Subjects**

*40 CFR Part 9*

Reporting and recordkeeping requirements.

*40 CFR Part 86*

Environmental protection, Administrative practice and procedure, Air pollution control, Motor vehicle

pollution, Motor vehicles, Reporting and recordkeeping requirements.

Dated: July 25, 1995.

**Carol M. Browner,**  
*Administrator.*

For the reasons set out in the preamble, 40 CFR chapter I is amended as follows:

**PART 9—OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT**

1. The authority citation for part 9 continues to read as follows:

**Authority:** 7 U.S.C. 135 *et seq.*, 136-136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601-2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1321, 1326, 1330, 1344(d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971-1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-1, 300j-2, 300j-3, 300j-4, 300j-9, 1857 *et seq.*, 6901-6992k, 7401-7671q, 7542, 9601-9657, 11023, 11048.

2. Section 9.1 is amended by adding a new entry to the table under the indicated heading in numerical order to read as follows:

**§ 9.1 OMB approvals under the Paperwork Reduction Act.**

40 CFR citation	OMB control No.
* * * * *	
* * * * *	
Control of Air Pollution From New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines: Certification and Test Procedures	
* * * * *	
86.094-38 .....	2060-0104
* * * * *	

**PART 86—CONTROL OF AIR POLLUTION FROM NEW AND IN-USE MOTOR VEHICLES AND NEW AND IN-USE MOTOR VEHICLE ENGINES: CERTIFICATION AND TEST PROCEDURES**

3. The authority citation for part 86 continues to read as follows:

**Authority:** Secs. 202, 203, 205, 206, 207, 208, 215, 216, and 301(a), Clean Air Act, as amended (42 U.S.C. 7521, 7522, 7524, 7525, 7541, 7542, 7549, 7550, 7552, and 7601(a)).

4. Section 86.094-2 is amended by adding definitions for "Bi-directional control", "Data stream information", "Enhanced service and repair information", "Generic service and repair information", "Indirect information", and "Intermediary", in alphabetical order, to read as follows:

**§ 86.094-2 Definitions.**

\* \* \* \* \*

*Bi-directional control* means the capability of a diagnostic tool to send messages on the data bus that temporarily overrides the module's control over a sensor or actuator and gives control to the diagnostic tool operator. Bi-directional controls do not create permanent changes to engine or component calibrations.

*Data stream information* means information (i.e., messages and parameters) originated within the vehicle by a module or intelligent sensors (i.e., a sensor that contains and is controlled by its own module) and transmitted between a network of modules and/or intelligent sensors connected in parallel with either one or two communication wires. The information is broadcast over the communication wires for use by other modules (e.g., chassis, transmission, etc.) to conduct normal vehicle operation or for use by diagnostic tools. Data stream information does not include engine calibration related information.

\* \* \* \* \*

*Enhanced service and repair information* means information which is specific for an original equipment manufacturer's brand of tools and equipment.

\* \* \* \* \*

*Generic service and repair information* means information which is not specific for an original equipment manufacturer's brand of tools and equipment.

\* \* \* \* \*

*Indirect information* means any information that is not specifically contained in the service literature, but is contained in items such as tools or equipment provided to franchised dealers (or others).

*Intermediary* means any individual or entity, other than an original equipment manufacturer, which provides service or equipment to automotive technicians.

\* \* \* \* \*

5. A new § 86.094-38 is added to read as follows:

**§ 86.094-38 Maintenance instructions.**

(a)-(f) [Reserved]  
(g) Emission control diagnostic service information:

(1) Manufacturers shall furnish or cause to be furnished to any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines, or the Administrator upon request, any and all information needed to make use of the on-board diagnostic system and such other information, including

instructions for making emission-related diagnosis and repairs, including, but not limited to, service manuals, technical service bulletins, recall service information, data stream information, bi-directional control information, and training information, unless such information is protected by section 208(c) as a trade secret. No such information may be withheld under section 208(c) of the Act if that information is provided (directly or indirectly) by the manufacturer to franchised dealers or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines.

(2) Emission-related information includes, but is not limited to:

(i) Information regarding any system, component or part of a vehicle that controls emissions and any system, components and/or parts associated with the powertrain system, including, but not limited to, the fuel system and ignition system;

(ii) Information for any system, component, or part that is likely to impact emissions, such as transmission systems; and

(iii) Any other information specified by the Administrator to be relevant for the diagnosis and repair of an emission failure found through the Inspection and Maintenance program, after such finding has been communicated to the affected manufacturer(s).

(3) All information required to be made available by this section shall be made available to persons referred to in this section at a fair and reasonable price, as determined by the Administrator. In reaching a decision, the Administrator shall consider all relevant factors, including, but not limited to, the cost to the manufacturer of preparing and/or providing the information, the type of information, the format in which it is provided, the price charged by other manufacturers for similar information, the differences that exist among manufacturers (e.g., the size of the manufacturer), the quantity of material contained in a publication, the detail of the information, the cost of the information prior to the effective date of this section, volume discounts, and inflation.

(4) Any information which is not provided at a fair and reasonable price shall be considered unavailable.

(5) By December 7, 1995, each manufacturer shall provide in a manner specified in paragraph (g)(9) of this section an index of the information required to be made available by this section for 1994 and later model year vehicles which have been offered for sale; this requirement does not apply to

indirect information, including the information specified in paragraph (g)(10) of this section. This index shall:

(i) Be updated on the first and third Monday of each month;

(ii) Provide titles that either adequately describes the contents of the document to which it refers or provides a brief description of the information contained in that document; and

(iii) Provide the cost of information and where it can be obtained.

(6) For vehicle models introduced more than four months after the effective date of this section, manufacturers shall make the information required under this section available to persons specified in paragraph (g)(1) of this section at the same time it is made available to dealerships, except as otherwise specified in this section.

(7) Each manufacturer shall maintain the index of information specified in paragraph (g)(5) of this section on FedWorld or other database designated by the Administrator. Manufacturers shall inform persons specified in paragraph (g)(1) of this section about the availability of the index in a manner prescribed by the Administrator.

(8) Each manufacturer shall be responsible for paying its pro rata share of any costs associated with establishing and maintaining the index of emission-related service and repair information provided for in paragraphs (g)(5) and (g)(7) of this section.

(9) Manufacturers or their designated distributors must mail requested information within one business day of receiving an order, and shall provide overnight delivery if the ordering party requests it and assumes the cost of delivery.

(10) All emission-related data stream information made available to manufacturers' franchised dealerships (or others in the service industry) shall be made available to the persons indicated in paragraph (g)(1) of this section either through provision of manufacturer equipment and tools or through provision of such information to equipment and tool manufacturers.

(11) Effective January 1, 1997, a manufacturer shall only provide bi-directional control to its franchised dealerships if it provides equipment and tool manufacturers with information to make diagnostic equipment with the same bi-directional control capabilities available to the dealerships, or if it provides such capabilities directly to persons specified in paragraph (g)(1) of this section by offering for sale at a reasonable cost through manufacturer tools.

(12) Manufacturers shall make data stream information and bi-directional control information available for all model years beginning with model year 1994 as specified in paragraphs (g)(10) and (g)(11) of this section. If a manufacturer can demonstrate, to the satisfaction of the Administrator, that safeguards for bi-directional controls are only installed in tools, not in vehicle on-board computers, then that manufacturer may receive a waiver from producing bi-directional controls for vehicles prior to the 1997 model year.

(13) Effective December 1, 1997, manufacturers shall make available in the manner described in paragraph (g)(16) of this section to persons specified in paragraph (g)(1) of this section reprogramming capability for all emission-related reprogramming events (including driveability reprogramming events that may affect emissions) that were issued prior to December 1, 1997 by manufacturers and that were made available to any manufacturer dealerships for model years 1994 through 1997; and manufacturers shall make available to persons indicated in paragraph (g)(1) of this section in the manner described in paragraph (g)(16) of this section reprogramming capability for all emission-related reprogramming events (including driveability reprogramming events that may affect emissions) that are issued by manufacturers on or after December 1, 1997, for 1994 and later model years at the same time they are made available to dealerships.

(14) For all vehicles, reprogramming need not be provided for any recalibrations performed prior to vehicles entering the stream of commerce (i.e., sale to first purchaser).

(15) If a manufacturer can demonstrate, to the satisfaction of the Administrator, that hardware would have to be retroactively installed on vehicles to meet security measures implemented by the manufacturer, the manufacturer may receive a waiver from the requirements of paragraph (g)(13) of this section for model years 1994 through 1996.

(16) Manufacturers shall either offer for sale at a competitive market price a reprogramming tool that interfaces with a substantial majority of generic portable computers or make available to aftermarket tool and equipment companies information that would enable them to manufacture such a tool. Any method adopted by a manufacturer by which reprogramming is made available to persons specified in paragraph (g)(1) of this section shall not impose a significant burden on such



providers beyond that experienced by dealerships.

(17) Manufacturers shall be responsible for ensuring that persons specified in paragraph (g)(1) of this section shall have access to reprogramming services at a reasonable cost and in a timely manner.

(18) Manufacturers shall provide persons specified in paragraph (g)(1) of this section with an efficient and cost-effective method for identifying whether the calibrations on vehicles are the latest to be issued.

(19) Manufacturers shall either make available to aftermarket tool and equipment companies no later than the date of model introduction any and all information, except calibrations and recalibrations, needed to develop and manufacture generic tools that can be used by persons specified in paragraph (g)(1) of this section to diagnose, service and repair emission-related parts, components and systems or manufacturers may sell their own diagnostic tools and equipment to persons specified in paragraph (g)(1) of this section if the price of such tools is reasonable.

(20) A manufacturer is subject to a penalty of up to \$25,000 per day per violation for failure to make available the information required by this section.

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BILLING CODE 6560-50-P

#### 40 CFR Part 180

[PP 9F3818/R2153; FRL-4970-3]

RIN 2070-AB78

#### Tebuconazole; Pesticide Tolerances

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This rule establishes tolerances for residues of the fungicide tebuconazole (*alpha*-[2-(4-chlorophenyl)-ethyl]-*alpha*-(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol) for seed treatment in or on the raw agricultural commodities barley grain, forage, hay, and straw at 0.05, 0.10, 0.10, 0.10 parts per million (ppm), respectively; oat grain, forage, hay, and straw at 0.05, 0.10, 0.10, and 0.10 ppm, respectively; and wheat grain, forage, hay, and straw at 0.05, 0.10, 0.10, 0.10 ppm, respectively. Miles, Inc. (formerly Mobay Corp., Agricultural Chemicals Division, now Bayer Corp.) submitted a petition pursuant to the Federal Food, Drug, and Cosmetic Act (FFDCA) for the regulation to establish a maximum

permissible level for residues of the fungicide.

**EFFECTIVE DATE:** This regulation becomes effective August 9, 1995.

**ADDRESSES:** Written objections and hearing requests, identified by the document control number, [PP 9F3818/R2153], may be submitted to: Hearing Clerk (1900), Environmental Protection Agency, Rm. M3708, 401 M St., SW., Washington, DC 20460. Fees accompanying objections shall be labeled "Tolerance Petition Fees" and forwarded to EPA Headquarters Accounting Operations Branch, OPP (Tolerance Fees), P. O. Box 360277M, Pittsburgh, PA 15251. A copy of any objections and hearing requests filed with the Hearing Clerk should be identified by the document control number and submitted to: Public Response and Program Resources Branch, Field Operations Division (7506C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. In person, bring copy of objections and hearing requests to Rm. 1132, CM #2, 1921 Jefferson Davis Hwy., Arlington, VA 22202.

A copy of any objections and hearing requests filed with the Hearing Clerk may also be submitted electronically by sending electronic mail (e-mail) to: opp-docket@epamail.epa.gov. Copies of objections and hearing requests must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Copies of objections and hearing requests will also be accepted on disks in WordPerfect in 5.1 file format or ASCII file format. All copies of objections and hearing requests in electronic form must be identified by the document number [PP 9F3818/R2153]. No Confidential Business Information (CBI) should be submitted through e-mail. Electronic copies of objections and hearing requests on this rule may be filed online at many Federal Depository Libraries. Additional information on electronic submissions can be found below in this document.

**FOR FURTHER INFORMATION CONTACT:** By mail: Connie B. Welch, Product Manager (PM) 21, Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Office location and telephone number: Rm. 227, CM #2, 1921 Jefferson Davis Hwy., Arlington, VA 22202, (703)-305-6226; e-mail: welch.connie@epamail.epa.gov.

**SUPPLEMENTARY INFORMATION:** EPA issued a notice, published in the **Federal Register** of June 15, 1995 (60 FR 31465), which announced that Miles,

Inc., Agricultural Division (formerly Mobay Corp., Agricultural Chemicals Division, now Bayer Corp.), P. O. Box 4913, Kansas City, MO 64120-0013, had submitted pesticide petition (PP) 9F3818 to EPA requesting that the Administrator, pursuant to section 408(d) of the FFDCA, 21 U.S.C. 346a(d), establish a tolerance for residues of the fungicide tebuconazole (*alpha*-[2-(4-chlorophenyl)-ethyl]-*alpha*-(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol) for seed treatment in or on the raw agricultural commodities barley grain, forage, hay, and straw at 0.05, 0.10, 0.10, 0.10 ppm, respectively; oat grain, forage, hay, and straw at 0.05, 0.10, 0.10, and 0.10 ppm, respectively; and wheat grain, forage, hay, and straw at 0.05, 0.10, 0.10, and 0.10 ppm, respectively.

There were no comments received in response to the notice of filing.

The scientific data submitted in the petition and other relevant material have been evaluated. The toxicological data considered in support of the tolerance include:

1. A 90-day rat feeding study with a no-observed-effect level (NOEL) of 34.8 milligrams per kilogram of body weight per day (mg/kg bw/day) (400 ppm) and a lowest-effect-level (LEL) of 171.7 mg/kg bw/day (1,600 ppm) in males, based on decreased body weight gains and histological changes in the adrenals. For females, the NOEL was 10.8 mg/kg bw/day (100 ppm), and the LEL was 46.5 mg/kg bw/day (400 ppm) based on decreased body weights, decreased body weight gains, and histological changes in the adrenals.

2. A 90-day dog feeding study with a NOEL of 200 ppm (73.7 mg/kg bw/day in males and 73.4 mg/kg bw/day in females) and an LEL of 1,000 ppm (368.3 mg/kg bw/day in males and 351.8 mg/kg bw/day in females). The LEL was based on decreases in mean body weights, body weight gains, and food consumption, and an increase in liver *N*-demethylase activity.

3. A 1-year dog feeding study with a NOEL of 1 mg/kg bw/day (40 ppm) and an LEL of 5 mg/kg bw/day (200 ppm), based on lenticular and corneal opacity and hepatic toxicity in either sex (the current Reference Dose was determined based on this study). A subsequent 1-year dog feeding study, using lower doses to further define the NOEL for tebuconazole, defines a systemic LOEL of 150 ppm (based on adrenal effects in both sexes) and a systemic NOEL of 100 ppm.

4. A 2-year rat chronic feeding study defined, a NOEL of 7.4 mg/kg bw/day (100 ppm) and a LEL of 22.8 mg/kg bw/day (300 ppm) based on body weight