

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Parts 51 and 85**

[FRL-5543-7]

RIN 2060-AE19

**I/M Program Requirement—On-Board Diagnostic Checks****AGENCY:** Environmental Protection Agency.**ACTION:** Final rule.

**SUMMARY:** Today's action revises the motor vehicle Inspection/Maintenance (I/M) Program Requirements. This rule establishes the minimum requirements for inspecting vehicles equipped with on-board diagnostic systems as part of the inspections required in basic and enhanced Inspection/Maintenance programs. Inspection/Maintenance programs are an important part of EPA's overall program to decrease the emissions of harmful pollutants from motor vehicles and bring all areas in the United States into attainment with the goals of the Clean Air Act.

**EFFECTIVE DATE:** This regulation is effective October 7, 1996. The incorporation by reference of certain publications listed in this regulation is approved by the Director of the Federal Register as of October 7, 1996.

**ADDRESSES:** Materials relevant to this rulemaking are contained in Public Docket No. A-94-21. The docket is located at the Air Docket, (LE-131) Room 1500 M, 1st Floor, Waterside Mall, 401 M Street SW, Washington, DC, 20460. The docket may be inspected between 8:00 a.m. and 5:30 p.m. on weekdays. A reasonable fee may be charged for copying docket material. Electronic copies of the preamble and the regulatory text of this rulemaking are available on the Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network Bulletin Board System (TTN BBS) and the Office of Mobile Sources' World Wide Web site, <http://www.epa.gov/OMSWWW/>.

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**SUPPLEMENTARY INFORMATION:**

## Table of Contents

- I. Regulated Entities
- II. Summary of Rule
- III. Authority
- IV. Public Participation
  - A. Two-Year Data Collection Period
  - B. Verifying Codes at Test Station

- C. Consumer Acceptance
- D. State Requirement for Exhaust and Evaporative Tests
- E. Test Report
- F. Unconfirmed Codes
- G. Bi-directional Communication
- H. Monitoring Engine Speed
- I. Test Order
- J. Key On-Engine Running vs. Key On-Engine Off
- K. Warranty Coverage for OBD System
- L. Fuel Economy Monitor
- M. OBD Emission Credits
- V. Economic Costs and Benefits
- VI. Administrative Requirements
  - A. Administrative Designation
  - B. Reporting and Recordkeeping Requirement
  - C. Regulatory Flexibility Act
  - D. Unfunded Mandates Act
  - E. Small Business Regulatory Enforcement Fairness Act

**I. Regulated Entities**

Entities potentially regulated by this action are those that are required to implement Inspection/Maintenance programs. Regulated categories and entities include:

Category	Examples of regulated entities
State and Local Government.	State and local governments required to implement I/M programs by the Clean Air Act.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your state or local government is regulated by this action, you should examine the applicability criteria in § 51.350 of title 40 of the Code of Federal Regulations. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

**II. Summary of Rule**

Motor vehicle inspection and maintenance (I/M) programs are an integral part of the effort to reduce mobile source air pollution. The Clean Air Act as amended in 1990, 42 U.S.C. 7401, *et seq.* (hereinafter "the Act"), was prescriptive with respect to certain aspects of the I/M program design. In particular, section 202(m)(3) of the Act directs EPA to require on-board diagnostic (OBD) system checks as a component of I/M programs. In addition, section 182(a)(2)(B)(ii) of the

Act requires that states revise their I/M programs within two years after promulgation of regulations under section 202(m)(3) to meet the requirements of those regulations.

With this action, EPA is establishing requirements for the inspection of on-board diagnostic systems as part of I/M programs. This action amends those sections of the Inspection/Maintenance Program Requirements in subpart S, 40 CFR part 51 (November 5, 1992) that were reserved for OBD requirements, and elsewhere as needed. This action adds to sections of subpart S pertaining to data collection and analysis as well as implementation deadlines. This action also adds to appendix B of subpart S pertaining to test procedures. Finally, this action adds to subpart W of 40 CFR part 85 pertaining to test procedures, test equipment, and standards for failure for purposes of the emission control system performance warranty.

Today's action establishes the test procedures and requirements for the on-board diagnostic (OBD) computer test portion of the I/M test. OBD testing of all 1996 and newer model year vehicles will be required in all I/M programs (basic and enhanced) beginning January 1, 1998 except that areas in the Northeast Ozone Transport Region (OTR) eligible to implement an OTR low enhanced I/M program must begin OBD testing by January 1, 1999. Failure of the OBD test will not result in mandatory repair until January 1, 2000. During this two year test-only period, EPA in cooperation with states and motor vehicle manufacturers hopes to gather data on the effectiveness of OBD.

**III. Authority**

Authority for these actions is granted to EPA by sections 182(a)(2)(B)(ii), 182(c)(3), 202(m)(3), 207(b), and 301(a) of the Clean Air Act as amended, 42 U.S.C. 7511a(a)(2)(B)(ii), 7511a(c)(3), 7521(m)(3), 7541(b), and 7601(a).

**IV. Public Participation****A. Two-Year Data Collection Period****1. Summary of Proposal**

The proposal required that all vehicles subject to an I/M test requirement undergo an OBD test beginning January 1, 1998. The proposal also stated that any vehicle which failed the OBD portion of the I/M test would fail the I/M test as of January 1, 1998. One of the possible reasons for failing the OBD test would be if all the vehicle's readiness codes were not cleared when it arrived at the test station. The readiness code status provides an indication of whether or not

a specific monitor has been exercised. A code is set when the monitor has not yet had a sufficient chance to make an accurate evaluation of the component's operation. The readiness code is cleared when an accurate determination has been made, thus indicating I/M readiness.

## 2. Summary of Comments

On September 26, 1995, several vehicle manufacturers met with EPA to discuss the OBD rule. At this meeting and again in written comments, manufacturers expressed the concern that vehicles would be rejected from testing because all the OBD readiness codes for the vehicle would not be cleared when the vehicle arrived at the test station. In particular, the manufacturers were concerned that extreme cold weather or high altitude might prevent certain readiness codes from clearing. Since that time, three manufacturers have notified EPA that there were problems with the design of the OBD readiness codes in a portion of the 1996 model year fleet and that it was likely that all of the codes would not be cleared when these vehicles arrived at the test station even though the vehicle was functioning normally. Some commenters also noted that OBD system checks should be incorporated in a manner that encourages public support and acceptance of OBD systems, especially during the early stages of implementation when technology for OBD systems is still relatively new. To deal with these issues, stakeholders suggested that a data collection period on the OBD system would be prudent. This would give EPA, the states, and the manufacturers time to assess the effectiveness of the OBD tests, identify any problems, and implement refinements.

## 3. Response to Comments

EPA agrees with commenters that because the OBD technology is new, a period of study is warranted. Therefore, although this action makes OBD testing mandatory for most I/M programs as of January 1, 1998, for the first two years of the program, until December 31, 1999, vehicles that fail the OBD test will not automatically fail the I/M test or be required to obtain repairs. From January 1, 1998 to December 31, 1999, vehicles that fail the OBD test can still pass the I/M test provided they undergo and pass the tail-pipe emission test, and, where applicable, the evaporative system tests. This will give EPA, the states, and vehicle manufacturers two years to collect data on OBD test results and the interaction between OBD test failures and exhaust and evaporative test results.

This test period should allow for the resolution of any vehicle software problems to ensure that vehicle owners will not be turned away from the test center solely because of the way in which their vehicle's readiness codes were programmed. In addition, this two-year period will allow time to correct any other unforeseen problems that may arise with readiness and diagnostic trouble codes or any other element of OBD testing. By providing this test-only period, EPA hopes to identify and solve potential problems so that consumers will face the least amount of inconvenience possible.

EPA does not believe there will be any lost emission reductions as a result of this two-year data collection period because most vehicles will still have to undergo tailpipe emission and, where applicable, evaporative tests. Furthermore, since OBD testing is only required on 1996 and newer vehicles, these vehicles will still be new and "clean" in 1998 and 1999. Because of this, EPA expects that very few of these vehicles will fail the I/M test.

EPA considered providing more detailed guidance on what the vehicle operator should be told (beginning in 2000) in the event their vehicle is rejected from testing because all of its readiness codes are not cleared. The proposed language of § 85.2223(a)(3) stated that the operator should be told to return after driving the vehicle "long enough" to allow the readiness codes to clear. Because time is not the only condition which will affect readiness code status, EPA changed this language (now in § 85.2222(c)) to provide that the operator be told to return after driving the vehicle under the conditions necessary for it to provide an accurate readiness determination.

At this time, EPA does not feel it is appropriate to specify in the regulation what the vehicle operator should be told and instead believes it is best left to the states to devise a solution that meets local program needs. As a result of the general language in this portion of the regulation, it is imperative that I/M inspectors obtain education about OBD so they can assess each individual operator's situation and provide advice on what should be done to ensure that the vehicle is ready when it returns to the test station. By way of example, EPA is including the following scenarios. First, evaporative system leak detection monitors generally require ambient temperatures above 40 degrees Fahrenheit, and an overnight soak or extended period of non-operation, prior to exercising the monitor. In a situation where the evaporative system readiness code is not cleared, an operator should

be told to return after starting their vehicle in warmer ambient temperature conditions with a near full tank of gasoline. Second, continued low-speed operation could provide little opportunity for exercising the exhaust gas recirculation (EGR) monitor. In a situation where the EGR readiness code has not cleared, an operator should be told to return after driving at higher speeds on the highway so that EGR would occur and the EGR monitor could be exercised.

## B. Verifying Codes at Test Station

### 1. Summary of Proposal

Under the proposal any vehicle whose malfunction indicator light (MIL) is commanded to be illuminated and who has certain diagnostic trouble codes (DTCs) present fails the OBD test.

### 2. Summary of Comments

One commenter urged EPA to establish a procedure to determine at the test center if a DTC could be false.

### 3. Response to Comments

Currently, the technology is not available to determine if a DTC is false at the test center. EPA believes that the two-year test period discussed above in section V.A will allow for development and refinement of OBD systems so that false failures will be less likely.

## C. Consumer Acceptance

### 1. Summary of Proposal

The proposal required that all vehicles that are subject to I/M testing undergo the OBD test and the exhaust and evaporative test if applicable. If a vehicle fails any one of the three tests, it fails the I/M test and must have whatever repairs are necessary (up to the monetary waiver limit) to pass a retest.

### 2. Summary of Comments

One commenter noted that the general public might resist having emission repairs that are necessary to pass the OBD test if the tailpipe emission test determines that the vehicle is "clean."

### 3. Response to Comments

Section 202(m)(3) of the Clean Air Act requires OBD testing as a component of all I/M programs. This commenter's concern illustrates the need for consumer education and awareness of the importance of OBD systems and OBD testing. The possibility exists that a vehicle will pass the tailpipe emission test (i.e., testing "clean") and still fail the OBD check. This result is not inconsistent with the proper operation of the OBD system. A failure of the OBD

check, coupled with a passing of the tailpipe emissions test, may be an indication of an emission related problem not apparent during the tailpipe emission test. For example, an engine misfire condition that exists only at high speeds may cause a significant emission increase during high speed operation, not to mention posing a serious threat to the catalyst. But, if such high speed operation is not part of the emission test cycle, the vehicle would appear "clean." EPA believes that the two year test-only period discussed in section V.A will allow consumers to become familiar with and hopefully understand the importance of OBD technology. This data gathering period will also allow EPA and the states time to gather information on what percentages of vehicles will fail the OBD test but pass the tailpipe emission test.

#### *D. State Requirement for Exhaust and Evaporative Tests*

##### **1. Summary of Proposal**

In the proposal, EPA stated that all 1996 and later model year vehicles in I/M programs (basic and enhanced) would have to undergo the OBD test as well as the applicable exhaust and evaporative test.

##### **2. Summary of Comments**

Two commenters suggested that EPA allow states to not require the exhaust and evaporative tests for vehicles that pass the OBD test. The commenters felt that these exceptions were warranted because of the perceived accuracy of OBD systems and because it would make I/M tests more convenient for consumers by decreasing the overall test time for those vehicles that pass the OBD test.

##### **3. Response to Comments**

At this time, EPA does not believe that there is sufficient data on the efficacy of OBD systems to warrant the omission of the exhaust and emission tests for all vehicles that pass the OBD test. However, EPA does believe that for vehicles two years old and newer, it is not necessary to perform exhaust and evaporative tests since failure rates are almost zero for these vehicles. Thus, if a two-year-old or newer vehicle is subject to a state's I/M program and passes the OBD test, EPA recommends that the state not require the exhaust and evaporative test for this vehicle. This will have no impact on emission reduction credits for the program. EPA agrees with commenters that not conducting the exhaust and evaporative tests on two year-old and newer

vehicles that pass the OBD test will increase consumer awareness and confidence in OBD systems, while decreasing test times and wait times overall. This advice is consistent with EPA's past advice that states not test vehicles until they are two or three years old (see 57 FR 52950, 52957). EPA believes this is advisable because virtually all of these vehicles pass the emission and evaporative tests.

EPA is reluctant to recommend not giving evaporative and tailpipe emission tests to vehicles that pass the OBD test to vehicles beyond two years old without additional information about OBD effectiveness at malfunction identification. EPA has consistently stated the hope that OBD checks will eventually become a substitute for more traditional I/M tests in the future. The two-year OBD data collection period discussed in section V.A will give states and EPA time to collect data on the effectiveness of OBD at identifying some emission problems. Because OBD is only required in 1996 and later model year vehicles, EPA believes that this timeframe, while adequate to solve any problems with the OBD test, will not be sufficient to assess the effectiveness of the OBD system in identifying the wide range of failures that occur as vehicles age. As sufficient aging of the fleet occurs, EPA will reevaluate the adequacy of OBD as a substitute for more traditional I/M test procedures.

In addition, due to the new flexibility allowed states in the types of I/M programs they implement, there will be a variety of different testing programs emerging. EPA needs time to evaluate the different exhaust and evaporative tests states will use to determine if each type of test is more or less effective than an OBD test. Thus, in the future, whether or not passage of the OBD test should influence whether a state chooses to conduct an exhaust and evaporative test may depend on the type of exhaust and evaporative tests that are conducted.

For these reasons, EPA is not comfortable recommending that states omit the traditional exhaust and evaporative test requirements for vehicles over two-years-old that pass the OBD test.

#### *E. Test Report*

##### **1. Summary of Proposal**

In the notice of proposed rulemaking, EPA proposed that any fault codes that were retrieved during the OBD test be printed on the I/M test report.

##### **2. Summary of Comments**

Commenters suggested that EPA adopt the SAE J2012 nomenclature as the standardized test report language that states would be required to use. Commenters also recommended that fault code information only appear on the test report if the vehicle fails the exhaust or evaporative portions of the I/M test. These were the same commenters that recommended that vehicles should only fail I/M if they fail the exhaust or evaporative test. Lastly, commenters suggested that a disclaimer be included on the test report which warned owners of failed vehicles that multiple or unrelated fault codes could be caused by temporary emission problems which on subsequent evaluations could prove to be fine.

##### **3. Response to Comments**

EPA agrees with commenters that standardized test report language would make it easier for the repair industry to diagnose the reason for the fault. For this reason, today's action adopts the SAE J2012 nomenclature as the standard test report language. Moreover, to decrease consumer confusion, today's action only requires printing fault codes on the test report when the vehicle fails the OBD test. For the test-only period of 1998 and 1999, OBD test information will appear on the test report whenever the vehicle "fails" the OBD test, even though failure of the OBD test will not cause failure of the I/M test. EPA is requiring this because it is important that consumers be aware that their vehicle may be experiencing a problem despite the tailpipe emission test results. While EPA did not adopt the exact disclaimer language suggested by commenters, it is requiring similar language be printed on the test report in the event of failure of the OBD test (see 40 CFR 85.2223(c)). EPA believes this language provides the type of information suggested by the commenters. EPA also believes that this standardized language will help educate consumers on the operation of OBD and the fact that professional diagnosis is necessary to determine the source of the failure.

#### *F. Unconfirmed Codes*

##### **1. Summary of Proposal**

The proposal did not specify which modes should be examined during the OBD test.

##### **2. Summary of Comments**

Commenters suggested specific language which they felt should be added to the final rule to clarify that fault codes stored in modes #5, #6, and

#7 (which store recent test results for various monitors), in accordance with SAE J1979, are not confirmed and therefore should not be considered for OBD test purposes.

### 3. Response to comments

EPA did not intend fault codes stored in pending or unconfirmed modes (i.e., the codes stored on modes #5, #6, and #7) to be a basis for an OBD test failure. EPA also did not intend to retrieve information from modes #2 and #4 which do not store information which is relevant to I/M testing. To clarify this point, this action explicitly requires that after retrieving the number of stored codes from mode #1, only fault codes in mode #3 (which contains the actual stored trouble codes) be considered for OBD test purposes. Limiting code retrieval to mode #3 ensures retrieval of those trouble codes verified as accurate by the OBD system. Because of this change, EPA believes that the exact language proposed by the commenters is no longer necessary and did not include it in this action.

## G. Bi-Directional Communication

### 1. Summary of Proposal

The proposal required that OBD test equipment be capable of bi-directional communication to allow for non-intrusive purge and pressure tests.

### 2. Summary of Comments

EPA received comments that the bi-directional communication requirement be limited to Mode #8 for activation of the canister vent solenoid. This would allow the I/M lane personnel to close the evaporative purge solenoid in order to allow pressurization of the evaporative system via the evaporative service port or other means. The commenter noted that other bi-directional communication with the OBD system is for service, and not I/M inspection, purposes.

### 3. Response to Comments

Because EPA is not sure whether all OBD scan tools will include built-in safeguards, EPA is limiting bi-directional communication to Mode #8 for the evaporative system solenoid in order to prevent I/M inspectors from sending unintentional commands to the vehicle. Providing for this one area of bi-directional communication will permit the inspector to close the evaporative system prior to the I/M pressure test being conducted. By limiting bi-directional communication, today's action precludes the possibility that the inspector will accidentally activate an engine control actuator and cause a problem during the test.

## H. Monitoring Engine Speed

### 1. Summary of Issue

Although monitoring engine speed (RPM) was not directly addressed by the OBD proposal, commenters felt that this action would be an appropriate place to require the use of OBD connectors on 1996 and newer model years to access the RPM signal during I/M testing. Currently, I/M testing stations use a variety of external measurement techniques to determine RPM. Commenters noted that whenever possible an OBD connector should be used for RPM monitoring because the OBD connector is far more consistent and accurate than external RPM monitoring devices.

### 2. EPA Response

EPA agrees with commenters that because the OBD connector is the most accurate method of measuring RPM it should be used to measure RPM in all possible instances. Therefore, this action revises the test procedures in part 51, subpart S, appendix B and part 85, subpart W to require the use of the standardized OBD connector to access the RPM signal whenever RPM monitoring is required on 1996 and newer model year vehicles. While OBD is the preferred method of measuring RPM (for vehicles with OBD systems), alternative measures can be used in the event the OBD system fails to provide the RPM information. EPA does not believe further notice and comment is necessary on this issue because this revision rose out of the issues addressed in the proposal, it was supported in the comments, and because EPA is allowing alternative measures of RPM in the event an OBD reading is unavailable.

After the close of the comment period a stakeholder contacted EPA to inquire whether the OBD system's failure to provide an RPM signal would result in the failure of the OBD test. The regulations contained in today's action do not list RPM failure as a basis for OBD test failure because RPM information is used for traditional tailpipe emission purposes and is not a necessary part of the OBD test.

## I. Test Order

### 1. Summary of Proposal

EPA requested comments in the proposal regarding whether an OBD check could be conducted during the I/M exhaust test.

### 2. Summary of Comments

Commenters noted that they did not foresee any adverse effects from conducting the OBD and exhaust tests

simultaneously but that only field experience would tell for certain.

### 3. Response to Comments

As there are no foreseen adverse consequences of conducting the exhaust and OBD test simultaneously, this action leaves it up to the state to determine whether they want to conduct the tests separately or simultaneously.

## J. Key On-Engine Running vs. Key On-Engine Off

### 1. Summary of Proposal

The proposed action would have allowed the OBD test to be performed with the vehicle in either the key on-engine running (KOER) or the key on-engine off (KOEO) position.

### 2. Summary of Comments

Commenters felt that the OBD test should only be conducted in the KOER mode to avoid possible problems from the initial OBD self-check on engine start.

### 3. Response to Comments

EPA agrees with commenters that in an effort to avoid issues regarding the OBD self-check on engine start, the OBD test should only perform when the key is in the KOER position. Therefore, this action requires that the vehicle be in the KOER position during the OBD test.

## K. Warranty Coverage for OBD System

### 1. Summary of Issue

One commenter noted that the proposal failed to specify how the OBD systems are to be classified for warranty purposes.

### 2. EPA Response

The OBD test is a Clean Air Act Section 207(b) warranty short test. The short test performance warranty covers vehicles only up to the 2 year, 24,000 mile emission performance warranty period described in 40 CFR 85.2103, except that nonconformities that result from the failure of the OBD computer or from the failure of certain emission components that are monitored by the OBD system, i.e., the catalyst or the ECU, are covered during the period of the 8 year, 80,000 mile defect warranty.

## L. Fuel Economy Monitor

### 1. Summary of Issue

One commenter believed that EPA should require automobile manufacturers to install a fuel economy monitor in addition to the malfunction indicator light (MIL) on the dashboard of all vehicles. This monitor would tell the driver how many miles to the gallon

the vehicle is currently obtaining. The commenter felt that this fuel efficiency monitor would provide motorists with an immediate incentive to repair emission related malfunctions (when the MIL light illuminated) because they could see how it was affecting their fuel economy.

## 2. EPA Response

While EPA appreciated the ingenuity of this proposal, this is not something that can be addressed in this action. In addition, it is not clear that EPA has the authority to require such an indicator.

### *M. OBD Emission Credits*

#### 1. Summary of Proposal

In the proposal, EPA explained that states would not receive additional emission reduction credits relative to the I/M performance standard for implementing OBD inspections because the OBD test was already included as an element of the performance standard and a specifically required component of the program in the original I/M rule (57 FR 52950, November 5, 1992). Nonetheless, the proposal noted that while OBD inspections do not generate additional emission reduction credits, they may actually generate benefits. EPA estimated the magnitude of these benefits in the original OBD rule (58 FR 9482–9483). Benefits were not expected in the early years of OBD programs because fewer vehicles would have OBD systems and such vehicles would be newer “clean” vehicles. In the proposal, EPA noted that it would be assessing the contribution of OBD inspections once OBD testing begins and will take such assessment into account in later modeling.

#### 2. Summary of Comments

One comment addressed this issue. This commenter felt that EPA should give additional emission reduction credits for OBD inspections beginning in 1998. The commenter urged EPA to conduct research on the effectiveness of OBD at identifying “dirty” cars that emission tests do not identify so that EPA can develop credits in the future.

#### 3. Response to Comments

At this time, EPA does not believe that additional credits are warranted for OBD inspections for the reasons given in the proposal. However, EPA does plan to evaluate the data it receives from states to quantify any additional emission reduction benefits from OBD.

#### V. Economic Costs and Benefits

Code inspections will not add significantly to the time or cost for an inspection due to the rapid connection

and data transfer capabilities which have been developed by industry and are required by EPA's OBD rule. Each I/M lane will need to purchase the equipment necessary for OBD interrogation. However, this equipment is relatively inexpensive and these costs may be distributed over thousands of tests. For enhanced I/M programs, the capital and maintenance costs associated with conducting OBD tests have been calculated to be \$0.05 per test. The OBD cost for basic centralized I/M programs is only \$0.025 per test due to the higher volume of cars that can be inspected in these lanes. The total cost of incorporating OBD inspections into enhanced and basic centralized programs nationwide has been calculated to be about \$1.7 million.

Assuming that 1200 tests will be conducted with every scan tool, the incorporation of OBD inspections into test-and-repair programs has been calculated to be about \$2 million. Thus, the total cost of incorporating OBD inspections into all I/M programs is \$3.7 million.

In addition to improving the identification of high emitting vehicles in an I/M program, OBD systems will also be of great utility in the repair of vehicles which fail the inspection, including the exhaust emission test. OBD will speed identification of the responsible component, and help avoid trial and error replacement of components.

#### VI. Administrative Requirements

##### *A. Administrative Designation*

Under Executive Order 12866, 58 FR 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.

It has been determined that this rule is not a “significant regulatory action” under the terms of Executive Order 12866 and is therefore not subject to OMB review. Any impacts associated with these requirements do not exceed the impacts that were dealt with in the I/M requirements published in the Federal Register on November 5, 1992 (57 FR 52950). This regulation is not expected to be controversial. This regulation does not raise any of the issues associated with “significant regulatory actions.” It does not create an annual effect on the economy of \$100 million or more or otherwise adversely affect the economy or the environment. The total cost of incorporating OBD inspections into all I/M programs nationwide has been calculated to be less than \$4 million. It is not inconsistent with nor does it interfere with actions by other agencies. It does not alter budgetary impacts of entitlements or other programs, and it does not raise any new or unusual legal or policy issues. Accordingly, it is appropriate to consider this a “non-significant” or “minor” rule action and it should be exempt from OMB review.

##### *B. Reporting and Recordkeeping Requirement*

This rule only marginally increases the existing burden through the addition of requirements to electronically capture and store one additional data element (existing diagnostic trouble codes) and to provide EPA with 13 additional summary statistics based on this information. The existing collection expired on February 28, 1996 (OMB No. 2060-0252). This additional burden will not be imposed until after the Information Collection Request has been renewed. When the current Information Collection Request is renewed, any modifications necessary to incorporate OBD inspection data collection will be made. These few additional elements will not add a measurable amount to the existing estimated burden of 85 hours.

##### *C. Regulatory Flexibility Act*

Pursuant to section 605(b) of the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Administrator certifies that this action will not have a significant economic impact on a substantial number of small entities and, therefore, is not subject to the requirement of a Regulatory Flexibility. A small entity may include a small government entity or jurisdiction. A small government jurisdiction is defined as “governments of cities, counties, towns, townships, villages, school districts, or special

districts, with a population of less than 50,000." This certification is based on the fact that the I/M areas impacted by this rulemaking do not meet the definition of a small government jurisdiction, that is, "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."

#### D. Unfunded Mandates Act

Under 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 where the estimated costs to state, local or tribal governments, or to the private sector, will be \$100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objective 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 impacted by the rule.

To the extent that the rules being promulgated by this action would impose any mandate as defined in section 101 of the Unfunded Mandates Act upon the state, local, or tribal governments, or the private sector, as explained above, this rule is not estimated to impose costs in excess of \$100 million. Therefore, EPA has not prepared a statement with respect to budgetary impacts.

#### E. Small Business Regulatory Enforcement Fairness Act

Under section 801(a)(1)(A) of the Administrative Procedures Act (APA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office prior to publication of the rule in today's Federal Register. This rule is not a "major rule" as defined by section 804(2) of the APA as amended.

#### List of Subjects

#### 40 CFR Part 51

Environmental protection, Administrative practice and procedure, Air pollution control, Carbon monoxide, Intergovernmental relations, Lead, Motor vehicle pollution, Nitrogen oxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

#### 40 CFR Part 85

Confidential business information, Imports, Incorporation by reference, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Warranties.

Dated: July 22, 1996.

Carol M. Browner,  
Administrator.

For the reasons set out in the preamble, parts 51 and 85 of chapter I, title 40 of the Code of Federal Regulations are amended as follows:

#### PART 51—REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS

1. The authority citation for part 51 continues to read as follows:

Authority: 42 U.S.C. 7401–7671q.

2. Section 51.351 is amended by adding text to paragraph (c) to read as follows:

##### § 51.351 Enhanced I/M performance standard.

\* \* \* \* \*

(c) *On-board diagnostics (OBD)*. The performance standard shall include inspection of all 1996 and newer light-duty vehicles and light-duty trucks equipped with certified on-board diagnostic systems pursuant to 40 CFR 86.094–17, and repair of malfunctions or system deterioration identified by or affecting OBD systems as specified in § 51.357.

\* \* \* \* \*

3. Section 51.352 is amended by revising paragraph (c) to read as follows:

##### § 51.352 Basic I/M performance standard.

\* \* \* \* \*

(c) *On-board diagnostics (OBD)*. The performance standard shall include inspection of all 1996 and newer light-duty vehicles and light-duty trucks equipped with certified OBD systems pursuant to 40 CFR 86.094–17, and repair of malfunctions or system deterioration identified by or affecting OBD systems as specified in § 51.357.

\* \* \* \* \*

4. Section 51.357 is amended by adding text to paragraphs (a)(12) and (b)(4) to read as follows:

##### § 51.357 Test procedures and standards.

\* \* \* \* \*

(a) \* \* \*

(12) *On-board diagnostic checks*. Inspection of the on-board diagnostic system shall be according to the procedure described in 40 CFR 85.2222, at a minimum.

\* \* \* \* \*

(b) \* \* \*

(4) *On-board diagnostics test standards*. Vehicles shall fail the on-board diagnostic test if they fail to meet the requirements of 40 CFR 85.2207, at a minimum. Failure of the on-board diagnostic test need not result in failure of the vehicle inspection/maintenance test until January 1, 2000.

\* \* \* \* \*

5. Section 51.358 is amended by adding text to paragraph (b)(4) to read as follows:

##### § 51.358 Test equipment.

\* \* \* \* \*

(b) \* \* \*

(4) *On-board diagnostic test equipment requirements*. The test equipment used to perform on-board diagnostic inspections shall function as specified in 40 CFR 85.2231.

\* \* \* \* \*

6. Section 51.365 is amended by adding paragraph (a)(25); by removing the word "and" at the end of paragraph (a)(23); and by removing the period at the end of paragraph (a)(24) and adding in its place ";" and" to read as follows:

##### § 51.365 Data collection.

\* \* \* \* \*

(a) \* \* \*

(25) Results of the on-board diagnostic check expressed as a pass or fail along with the diagnostic trouble codes revealed.

\* \* \* \* \*

7. Section 51.366 is amended by adding paragraph (a)(2)(xi) through (a)(2)(xxiii); by removing the word "and" at the end of paragraph (a)(2)(ix) to read as follows:

##### § 51.366 Data analysis and reporting.

\* \* \* \* \*

(a) \* \* \*

(2) \* \* \*

(xi) Passing the on-board diagnostic check and failing the I/M emission test;

(xii) Failing the on-board diagnostic check and passing the I/M emission test;

(xiii) Passing both the on-board diagnostic check and I/M emission test;

(xiv) Failing both the on-board diagnostic check and I/M emission test;

(xv) Passing the on-board diagnostic check and failing the I/M evaporative test;

(xvi) Failing the on-board diagnostic check and passing the I/M evaporative test;

(xvii) Passing both the on-board diagnostic check and I/M evaporative test;

(xviii) Failing both the on-board diagnostic check and I/M evaporative test;

(xix) MIL is commanded on and no codes are stored;

(xx) MIL is not commanded on and codes are stored;

(xxi) MIL is commanded on and codes are stored;

(xxii) MIL is not commanded on and codes are not stored;

(xxiii) Readiness status indicates that the evaluation is not complete for any module supported by on-board diagnostic systems;

\* \* \* \* \*

8. Section 51.372 is amended by revising paragraph (b)(3) to read as follows:

**§ 51.372 State implementation plan submissions.**

\* \* \* \* \*

(b) \* \* \*

(3) States shall revise SIPS as EPA develops further regulations. Revisions to incorporate on-board diagnostic checks in the I/M program shall be submitted by August 6, 1996.

\* \* \* \* \*

9. Section 51.373 is amended by adding paragraph (g) to read as follows:

**§ 51.373 Implementation deadlines.**

\* \* \* \* \*

(g) Areas qualifying for the Ozone Transport Region (OTR) low-enhanced performance standard shall implement on-board diagnostic checks by January 1, 1999. In all other areas, on-board diagnostic checks shall be implemented as part of the I/M program by January 1, 1998.

10. Appendix B to subpart S of part 51 is amended by revising paragraphs (I)(b)(2)(ii), (II)(b)(2)(ii), (III)(b)(2)(iv), (IV)(b)(2)(ii), (V)(b)(2)(iv) and (VI)(b)(2)(ii) to read as follows:

**APPENDIX B TO SUBPART S—TEST PROCEDURES**

(I) \* \* \*

(b) \* \* \*

(2) \* \* \*

(ii) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

(II) \* \* \*

(b) \* \* \*

(2) \* \* \*

(ii) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions.

For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

(III) \* \* \*

(b) \* \* \*

(2) \* \* \*

(iv) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

(IV) \* \* \*

(b) \* \* \*

(2) \* \* \*

(ii) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

(V) \* \* \*

(b) \* \* \*

(2) \* \* \*

(iv) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

(VI) \* \* \*

(b) \* \* \*

(2) \* \* \*

(ii) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

**PART 85—CONTROL OF AIR POLLUTION FROM MOTOR VEHICLES AND MOTOR VEHICLE ENGINES**

11. The authority citation for part 85 is revised to read as follows:

Authority: 42 U.S.C. 7401–7671q.

**Subpart W—[Amended]**

12. A new § 85.2207 is added to read as follows:

**§ 85.2207 On-board diagnostics test standards.**

(a) Beginning January 1, 2000, failure of the on-board diagnostic test shall be a basis for failure of the I/M test. Prior to January 1, 2000 failure of the on-board diagnostic test may be a basis for failure of the I/M test.

(b) A vehicle shall fail the on-board diagnostics test if it is a 1996 or newer vehicle and the vehicle connector is missing, has been tampered with, or is otherwise inoperable.

(c) A vehicle shall fail the on-board diagnostics test if the malfunction indicator light is commanded to be illuminated and it is not visually illuminated according to visual inspection.

(d) A vehicle shall fail the on-board diagnostics test if the malfunction indicator light is commanded to be illuminated and any of the following OBD codes, as defined by SAE J2012 are present (where X refers to any digit). The procedure shall be done in accordance with SAE J2012 Diagnostic Trouble Code Definitions, (MAR92). This incorporation of reference was approved by the Director of the Federal Register in accordance with 5 U.S.C.552(a) and 1 CFR part 51. Copies of SAE J2012 may be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001. Copies may be inspected at the EPA Docket No. A-94-21 at EPA's Air Docket, (LE-131) Room 1500 M, 1st Floor, Waterside Mall, 401 M Street SW, Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(1) Any PX1XX Fuel and Air Metering codes.

(2) Any PX2XX Fuel and Air Metering codes.

(3) Any PX3XX Ignition System or Misfire codes.

(4) Any PX4XX Auxiliary Emission Controls codes.

(5) P0500 Vehicle Speed Sensor Malfunction.

(6) P0501 Vehicle Speed Sensor Range/Malfunction.

(7) P0502 Vehicle Speed Sensor Circuit Low Input.

- (8) P0503 Vehicle Speed Sensor Intermittent/Erratic/High.
- (9) P0505 Idle Control System Malfunction.
- (10) P0506 Idle Control System RPM Lower Than Expected.
- (11) P0507 Idle Control System RPM Higher Than Expected.
- (12) P0510 Closed Throttle Position Switch Malfunction.
- (13) P0550 Power Steering Pressure Sensor Circuit Malfunction.
- (14) P0551 Power Steering Pressure Sensor Circuit Malfunction.
- (15) P0552 Power Steering Pressure Sensor Circuit Low Input.
- (16) P0553 Power Steering Pressure Sensor Circuit Intermittent.
- (17) P0554 Power Steering Pressure Sensor Circuit Intermittent.
- (18) P0560 System Voltage Malfunction.
- (19) P0561 System Voltage Unstable.
- (20) P0562 System Voltage Low.
- (21) P0563 System Voltage High.
- (22) Any PX6XX Computer and Output Circuits codes.
- (23) P0703 Brake Switch Input Malfunction.
- (24) P0705 Transmission Range Sensor Circuit Malfunction (PRNDL Input).
- (25) P0706 Transmission Range Sensor Circuit Range/Performance.
- (26) P0707 Transmission Range Sensor Circuit Low Input.
- (27) P0708 Transmission Range Sensor Circuit High Input.
- (28) P0709 Transmission Range Sensor Circuit Intermittent.
- (29) P0719 Torque Converter/Brake Switch "B" Circuit Low.
- (30) P0720 Output Speed Sensor Circuit Malfunction.
- (31) P0721 Output Speed Sensor Circuit Range/Performance.
- (32) P0722 Output Speed Sensor Circuit No Signal.
- (33) P0723 Output Speed Sensor Circuit Intermittent.
- (34) P0724 Torque Converter/Brake Switch "B" Circuit High.
- (35) P0725 Engine Speed Input Circuit Malfunction.
- (36) P0726 Engine Speed Input Circuit Range/Performance.
- (37) P0727 Engine Speed Input Circuit No Signal.
- (38) P0728 Engine Speed Input Circuit Intermittent.
- (39) P0740 Torque Converter Clutch System Malfunction.
- (40) P0741 Torque Converter System Performance or Stuck Off.
- (41) P0742 Torque Converter Clutch System Stuck On.
- (42) P0743 Torque Converter Clutch System Electrical.
- (43) P0744 Torque Converter Clutch Circuit Intermittent.

(e) The list of codes shall be updated with future revisions of this section, in conjunction with changes to 40 CFR 86.094-17(h)(3).

13. Section 85.2213 is amended by revising paragraph (b)(2)(ii) to read as follows:

#### **§ 85.2213 Idle test—EPA 91.**

\* \* \* \* \*

- (b) \* \* \*
- (2) \* \* \*

(ii) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

14. Section 85.2215 is amended by revising paragraph (b)(2)(ii) to read as follows:

#### **§ 85.2215 Two speed idle test—EPA 91.**

\* \* \* \* \*

- (b) \* \* \*
- (2) \* \* \*

(ii) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

15. Section 85.2218 is amended by revising paragraph (b)(2)(ii) to read as follows:

#### **§ 85.2218 Preconditioned idle test—EPA 91.**

\* \* \* \* \*

- (b) \* \* \*
- (2) \* \* \*

(ii) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

16. Section 85.2220 is amended by revising paragraph (b)(2)(ii) to read as follows:

#### **§ 85.2220 Preconditioned two speed idle test—EPA 91.**

\* \* \* \* \*

(b) \* \* \*

(2) \* \* \*

(ii) For all pre-1996 model year vehicles, a tachometer shall be attached to the vehicle in accordance with the analyzer manufacturer's instructions. For 1996 and newer model year vehicles the OBD data link connector will be used to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link connector, a tachometer shall be used instead.

\* \* \* \* \*

17. A new § 85.2222 is added to read as follows:

#### **§ 85.2222 On-board diagnostic test procedures.**

The test sequence for the inspection of on-board diagnostic systems on 1996 and newer light-duty vehicles and light-duty trucks shall consist of the following steps:

(a) The on-board diagnostic inspection shall be conducted with key-on/engine-running (KOER).

(b) The inspector shall locate the vehicle connector and plug the test system into the connector.

(c) The test system shall send a Mode S01, PID \$01 request in accordance with SAE J1979 to determine the evaluation status of the vehicle's on-board diagnostic system. The test system shall determine what monitors are supported by the on-board diagnostic system, and the readiness evaluation for applicable monitors in accordance with SAE J1979. The procedure shall be done in accordance with SAE J1979 "E/E Diagnostic Test Modes," (DEC91). This incorporation of reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of SAE J1979 may be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001. Copies may be inspected at the EPA Docket No. A-94-21 at EPA's Air Docket, (LE-131) Room 1500 M, 1st Floor, Waterside Mall, 401 M Street SW, Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Beginning January 1, 2000, if the readiness evaluation indicates that any on-board tests are not complete the customer shall be instructed to return after the vehicle has been run under conditions that allow completion of all applicable on-board tests. If the readiness evaluation again indicates that any on-board test is not complete the vehicle shall be failed.

(d) The test system shall evaluate the malfunction indicator light status bit and record status information in the vehicle test record.

(1) If the malfunction indicator status bit indicates that the malfunction indicator light has been commanded to be illuminated the test system shall send a Mode \$03 request to determine the stored emission related power train trouble codes. The system shall repeat this cycle until the number of codes reported equals the number expected based on the Mode 1 response. If any of the codes listed in § 85.2207(d) are present they shall be recorded in the vehicle test record and the vehicle shall fail the on-board diagnostic inspection.

(2) If the malfunction indicator light bit is not commanded to be illuminated the vehicle shall pass the on-board diagnostic inspection, even if codes listed at § 85.2207(d) are present.

(3) If the malfunction indicator light bit is commanded to be illuminated, the inspector shall visually inspect the malfunction indicator light to determine if it is illuminated. If the malfunction indicator light is commanded to be illuminated but is not, the vehicle shall fail the on-board diagnostic inspection.

18. A new § 85.2223 is added to read as follows:

#### **§ 85.2223 On-board diagnostic test report.**

(a) Motorists whose vehicles fail the on-board diagnostic test described in § 85.2222 shall be provided with the on-board diagnostic test results, including the codes retrieved (as listed in paragraph (b) of this section), the status of the MIL illumination command, and the customer alert statement (as stated in paragraph (c) of this section).

(b) If any of the following codes are retrieved the corresponding component shall be listed on the test report in the following way:

Code	Component
PX1XX	Fuel and Air Metering.
PX2XX	Fuel and Air Metering.
PX3XX	Ignition System or Misfire.
PX4XX	Auxiliary Emission Controls.
P0500	Vehicle Speed Sensor.
P0501	Vehicle Speed Sensor.
P0502	Vehicle Speed Sensor.
P0503	Vehicle Speed Sensor.
P0505	Idle Control System.
P0506	Idle Control System.
P0507	Idle Control System.
P0510	Closed Throttle Position Switch.

Code	Component
P0550	Power Steering Pressure Sensor Circuit.
P0551	Power Steering Pressure Sensor Circuit.
P0552	Power Steering Pressure Sensor Circuit.
P0553	Power Steering Pressure Sensor Circuit.
P0554	Power Steering Pressure Sensor Circuit.
P0560	System Voltage.
P0561	System Voltage.
P0562	System Voltage.
P0563	System Voltage.
PX6XX	Computer and Output Circuits.
P0703	Brake Switch.
P0705	Transmission Range Sensor Circuit.
P0706	Transmission Range Sensor Circuit.
P0707	Transmission Range Sensor Circuit.
P0708	Transmission Range Sensor Circuit.
P0709	Transmission Range Sensor Circuit.
P0719	Torque Converter/Brake Switch.
P0720	Output Speed Sensor.
P0721	Output Speed Sensor.
P0722	Output Speed Sensor.
P0723	Output Speed Sensor.
P0724	Torque Converter/Brake Switch.
P0725	Engine Speed Input Circuit.
P0726	Engine Speed Input Circuit.
P0727	Engine Speed Input Circuit.
P0728	Engine Speed Input Circuit.
P0740	Torque Converter Clutch System.
P0741	Torque Converter System.
P0742	Torque Converter Clutch System.
P0743	Torque Converter Clutch System.
P0744	Torque Converter Clutch System.

(c) In addition to any codes which were retrieved, the test report shall include the following language:

Your vehicle's computerized self-diagnostic system (OBD) registered the fault(s) listed below. This fault(s) is probably an indication of a malfunction of an emission component. However, multiple and/or seemingly unrelated faults may be an indication of an emission-related problem that occurred previously but upon further evaluation by the OBD system was determined to be only temporary. Therefore, proper diagnosis by a qualified technician is required to positively identify the source of any emission-related problem.

19. A new § 85.2231 is added to read as follows:

#### **§ 85.2231 On-board diagnostic test equipment requirements.**

(a) The test system interface to the vehicle shall include a plug that conforms to SAE J1962 "Diagnostic Connector." The procedure shall be done in accordance with SAE J1962 "Diagnostic Connector" (JUN92). This incorporation of reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552 (a) and 1 CFR part 51. Copies of SAE J1962 may be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001. Copies may be inspected at the EPA Docket No. A-94-21 at EPA's Air Docket, (LE-131) Room 1500 M, 1st Floor, Waterside Mall, 401 M Street SW., Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(b) The test system shall be capable of communicating via the J1962 connector with a vehicle certified as complying with the on-board diagnostic requirements of 40 CFR 86.094-17.

(c) The test system shall be capable of checking for the monitors supported by the on-board diagnostic system and the evaluation status of supported monitors (test complete/test not complete) in Mode \$01 PID \$01, as well as be able to request the diagnostic trouble codes, as specified in SAE J1979. In addition, the system shall have the capability to include bi-directional communication for control of the evaporative canister vent solenoid. SAE J1979 is incorporated by reference and approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of all the SAE documents cited above may be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001. Copies may be inspected at the EPA Docket No. A-94-21 at EPA's Air Docket, (LE-131) Room 1500 M, 1st Floor, Waterside Mall, 401 M Street SW., Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(d) The test system shall automatically make a pass, fail, or reject decision, as specified in the test procedure in § 85.2222.

[FR Doc. 96-19409 Filed 8-5-96; 8:45 am]

BILLING CODE 6560-50-P