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 by 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, 2001, 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.

[61 FR 40947, Aug. 6, 1996, as amended at 63 FR 24433, May 4, 1998]

§ 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.
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.

[61 FR 40948, Aug. 6, 1996]

§ 85.2224 Exhaust analysis system—EPA 81.

(a) Applicability. The requirements of this subsection apply to short tests conducted under Emissions Performance Warranty through December 31, 1993. The requirements of § 85.2225 apply concurrently until December 31, 1993, after which the requirements of § 85.2225 are solely in effect. The following exceptions apply: In a state where the Administrator has approved a SIP revision providing for implementation of a basic centralized program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in § 51.373 of this chapter, the requirements of this section are concurrently in effect until June 30, 1994 for 1995 and earlier model year vehicles or engines; in a state where the Administrator has approved a SIP revision providing for implementation of an enhanced program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in § 51.373 of this chapter, the requirements of this section are concurrently in effect until December 31, 1995 for 1995 and earlier model year vehicles or engines.

(b) *Sampling system*—(1) *General requirements.* The exhaust sampling system shall consist of a sample probe, moisture separator and analyzers for HC and CO.

(2) *Dual sample probe requirements.* If used, a dual sample probe must provide equal flow in each leg. The equal flow criterion is considered to be met if the flow rate in each leg of the probe (or an identical model) has been measured under two sample flow rates (the normal rate and a rate equal to the onset of low flow), and if the flow rates in each of the legs are found to be equal to each other (±15%).

(c) *Analyzers*—(1) *Accuracy.* The HC analyzer shall have an accuracy of ±15 ppm at 200 to 220 ppm concentration HC (as hexane). The CO analyzer shall have an accuracy of ±0.1% CO from 1.0% to 1.2% concentration.

(2) *Response time.* Response time of the analyzers shall be 15 seconds to 95% of the final reading.

(3) *Drift.* Analyzer drift (up-scale and down-scale zero and span wander) shall not exceed ±0.1% CO and ±15 ppm HC (as hexane) on the lowest range capable of reading 1.0% or 200 ppm HC (as hexane) during a one-hour period.

[49 FR 24323, June 12, 1984. Redesignated and amended at 58 FR 58403, 58412, Nov. 1, 1993]

§ 85.2225 Steady state test exhaust analysis system—EPA 91.

(a) *Special calendar and model year applicability.* The requirements of § 85.2224 apply concurrently for tests conducted under Emission Performance Warranty on 1995 and earlier model year vehicles or engines until December 31, 1993, after which the requirements of this section are solely in effect. The following exceptions apply: in a state where the Administrator has approved a SIP revision providing for implementation of a basic centralized program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in § 51.373 of this chapter, the requirements of § 85.2224 are concurrently in effect until June 30, 1994, for 1995 and earlier model year vehicles or engines; in a state where the Administrator has approved a SIP revision providing for implementation of an enhanced program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in § 51.373 of this chapter, the requirements of § 85.2224 are concurrently in effect until December 31, 1995, for 1995 and earlier model year vehicles or engines.

(b) *Sampling System*—(1) *General requirements.* The sampling system for steady state short tests consists, at a minimum, of a tailpipe probe; a flexible sample line; a water removal system;