



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



EXHIBIT E

HEARING REPORT

Prepared Pursuant to § 4-168(d) of the Connecticut General Statutes and § 22a-3a-3(d)(5) of the Department of Environmental Protection Rules of Practice
Regarding
Amendment of the Regulations of Connecticut State Agencies (R.C.S.A.) § 22a-174-27:
Standards for Periodic Motor Vehicle Inspection and Maintenance

Hearing Officer: Martin T. Booher

Date of Public Hearing: October 21, 1999

I. Introduction

On September 10, 1999, the Commissioner of the Department of Environmental Protection (Department) published a notice of intent to revise the State Implementation Plan (SIP) for air quality and amend Regulations of Connecticut State Agencies (R.C.S.A.) § 22a-174-27 (§ 27) concerning emissions standards for periodic motor vehicle inspection and maintenance. Pursuant to such notice, a public hearing was held on October 21, 1999. The public comment period for this proposed amendment closed on November 15, 1999.

II. Administrative Requirements

A. *Hearing Report Content*

As required by Connecticut General Statutes (C.G.S.) § 4-168(d), this report describes the amendments to the R.C.S.A. as proposed for hearing; the final wording of the proposed amendments to the R.C.S.A.; a statement of the principal reasons in support of the Department's proposed action; a statement of the principal reasons in opposition of the Department's proposed action and the reasons for rejecting such comments; and a summary of all comments and responses thereto on the proposed action. Those who provided comments are identified in Attachment 1.

B. *Adoption of Regulations Pertaining to Activities for which the Federal Government has Adopted Standards or Procedures*

In accordance with C.G.S. § 22a-6(h), the Commissioner must clearly distinguish, at the time of the public hearing, all provisions of a proposed regulation that differ from adopted federal standards and procedures, provided: (1) such proposed regulation pertains to activities addressed by adopted federal standards and procedures; and (2) such adopted federal standards and procedures apply to persons subject to the provisions of such proposed regulation. In addition,

the Commissioner must provide an explanation for all such provisions in the regulation-making record required under Title 4, Chapter 54 of the C.G.S.

In accordance with the requirements of C.G.S. § 22a-6(h), the Hearing Officer made a statement at the public hearing, which is incorporated into the administrative record for the proposed amendments to § 27. Such statement indicated that the requirements of C.G.S. § 22a-6(h) are not applicable to the proposed amendments to § 27 because the federal government has not adopted standards or procedures that are applicable to any person potentially subject to the proposed amendments to § 27.

III. Summary and Text of the Proposed Amendments to § 27

The State of Connecticut is required to adopt and implement a program of on-road emission testing of motor vehicles pursuant to § 182(c) of the 1990 Clean Air Act Amendments (CAA) and 40 Code of Federal Regulations (CFR) § 51.371. Currently, § 27 sets forth emission standards for periodic motor vehicle inspection and maintenance. The proposed amendments to § 27 adopt a maximum allowable emission standard for carbon monoxide (CO) of six percent (6.0%) by volume, thereby providing the Department of Motor Vehicles (DMV) with an enforceable emission standard for the purpose of conducting on-road testing of motor vehicles within the State of Connecticut.

Section 22a-174-27 of the Regulations of Connecticut State Agencies is amended to read as follows:

Section 22a-174-27. Emission standards for periodic motor vehicle inspection and maintenance.

(a) Applicability.

This section shall apply to any owner or operator of a 1968 and later model year motor vehicle which is not an antique, rare or special interest motor vehicle as defined in section 14-1 of the general statutes. This section shall not apply to motor vehicles which are exempt pursuant to section 14-164c(c) of the general statutes.

(b) Definitions. For purposes of this section the definitions contained in subdivisions (1) through [(16)] (17) shall apply.

- (1) "ASM 2525" or "Acceleration Simulation Mode test" means an emissions test performed at a steady state of twenty-five (25) miles per hour (mph) and which utilizes a dynamometer load set to simulate 25% of the power required to accelerate the particular vehicle

being tested at 3.3 mph/second until a speed of 25 mph is attained. Such test shall analyze exhaust gas concentration, by percent CO and ppm of NO and HC, and compare the test results to the maximum allowable exhaust emission standards for CO, NO and HC as published by the United States Environmental Protection Agency in section 85.1(a) of the "Acceleration Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications, Technical Guidance"[,] EPA-AA-RPSD-IM-96-2 (July, 1996) except that the word "should" in subdivisions (1) and (2) of section 85.1(a) shall be replaced with the word shall."

- (2) "CO" means carbon monoxide;
- (3) "CFR" means Code of Federal Regulations;
- (4) "HC" means hydrocarbon;
- (5) "Composite Motor Vehicle" or "COMPO" means a vehicle which is constructed from the component parts of two or more motor vehicles of different model year or vehicle type;
- (6) "g/mi" means grams per mile;
- (7) "Gross Vehicle Weight Rating" or "GVWR" means the value specified by the manufacturer as the maximum loaded weight of a single or a combination (articulated) vehicle, or its registered gross weight, whichever is greater. The GVWR of a combination (articulated) vehicle commonly referred to as the "Gross Combination Weight Rating" or GCWR is the GVWR of the power unit plus the GVWR of the towed unit or units;
- (8) "idle EXHAUST test procedure with loaded preconditioning" means an analysis of exhaust gas concentration, by percent CO and HC, in accordance with "recommended I/M short test procedures for the 1990's: Six Alternatives" section 4, EPA-AA-TSS-I/M-90-3 (January 1991);

- (9) "light-duty truck" or "LDT" means a motor vehicle rated at 10,000 lbs. GVWR or less and is designed:
- (A) to transport property or ten (10) or more persons, not including the operator; or
 - (B) with features enabling off-street or off-highway operation and use;
- (10) "light-duty vehicle" or "LDV" means a motor vehicle that is designed:
- (A) to carry not more than ten (10) persons, including the operator; and
 - (B) to transport persons and their property with at least fifty percent of the total area enclosed by the outermost body contour lines, excluding the area enclosing the engine;
- (11) "loaded vehicle weight" or "lvw" means vehicle curb weight plus three hundred pounds (300 lbs.);
- (12) "NO" means nitric oxide;
- (13) "ON-ROAD TESTING" MEANS THE MEASUREMENT OF HC, CO, AND NOX EMISSIONS ON ANY ROAD OR ROADSIDE WITHIN THE STATE OF CONNECTICUT;
- [(13)] (14) "ppm" means parts per million by volume;
- [(14)] (15) "THC" means total hydrocarbons;
- [(15)] (16) "vehicle curb weight" is defined as in 40 CFR section 86.082-2; and
- [(16)] (17) "vol. %" means percent by volume.

(c) Emission standards.

- (1) Idle exhaust emission standards. Maximum allowable emissions for any vehicle subject to an idle exhaust [emission] test PROCEDURE with loaded preconditioning

administered by the Commissioner of Motor Vehicles or his designee shall be:

Vehicle Model Year	CO (Vol. %)	THC (ppm)
1968-69	5.00	500
1970	4.75	475
1971	4.40	450
1972	4.25	425
1973	4.00	390
1974	3.80	350
1975	3.00	300
1976	2.80	300
1977	2.70	300
1978	2.40	275
1979	2.10	250
1980	2.00	225
1981	1.20	200
1983	1.00	175
1984	1.00	150
1985	1.00	150
1986	1.00	150
1987	1.00	150
1988 and later	1.00	125

- (2) ASM 2525 exhaust emission standards. Maximum allowable emissions for any vehicle subject to an ASM 2525 exhaust emission test administered by the Commissioner of Motor Vehicles or his designee shall be as published by the United States Environmental Protection Agency in subdivision (1) of section 85.1(a) of the "Acceleration Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications, Technical Guidance" EPA-AA-RPSD-IM-96-2 (July, 1996). After December 31, 1999, maximum allowable emissions for any vehicle subject to an ASM 2525 exhaust emission test administered by the Commissioner of Motor Vehicles or his designee shall be as published by the United States Environmental Protection Agency in subdivision (2) of section 85.1(a) of the "Acceleration Simulation

Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications, Technical Guidance" EPA-AA-RPSD-IM-96-2 (July, 1996).

(3) Visible emission standards. Maximum allowable visible emissions for diesel powered LDVs and LDTs of model years 1968 and later, shall be 20% particulate opacity as determined by any opacity meter.

(4) ON-ROAD TESTING EMISSIONS STANDARDS. MAXIMUM ALLOWABLE EMISSIONS FOR ANY VEHICLE SUBJECT TO AN ON-ROAD EMISSIONS TEST ADMINISTERED BY THE COMMISSIONER OF MOTOR VEHICLES OR HIS DESIGNEE SHALL BE SIX PERCENT (6%) CO BY VOLUME.

(d) **Undetermined GVWR.** Where the gross vehicle weight rating cannot be determined, the emission standard for LDVs shall apply.

(e) **Composite vehicles.** Where the vehicle is designated "COMPO" in the "make" field of the registration certificate, the emission standards for model year 1968 shall apply.

(f) **Alteration or replacement of vehicle engine.**

(1) Any vehicle with an engine other than the one originally installed by the manufacturer or an identical replacement of such engine shall be subject to the test procedures and standards for the chassis type and model year of the vehicle.

(2) Any vehicle that is re-engineered from an internal combustion gasoline engine to another combustion or fuel type, shall be subject to the test procedures and standards for a gasoline powered vehicle.

STATEMENT OF PURPOSE: To adopt maximum allowable emissions standards for on-road testing as necessary to implement 40 CFR section 51.371 of the enhanced inspection and maintenance program and to preserve the applicability of emissions standards.

IV. Principal Considerations in Opposition to the Proposed Amendments to § 27

There were no comments in opposition to the adoption of the proposed amendments to § 27.

V. Summary of Comments

Comments Submitted by the United States Environmental Protection Agency (EPA)

Comment: The EPA stated that the proposed amendments to § 27 do not meet the requirements of Subpart S, 40 CFR Part 51, because § 27 fails to require out-of-cycle testing and repair of vehicles identified by the on-road testing program that exceed the 6%, by volume, carbon monoxide standard.

Response: Subpart S, 40 CFR Part 51 requires a state to include in its SIP the legal authority necessary to implement an on-road testing program, including the authority to enforce out-of-cycle testing and repair requirements. The EPA's statement is correct. Section 27 does not authorize out-of-cycle testing and repair requirements. Rather, the authority to enforce out-of-cycle testing and repair requirements is set forth in C.G.S. § 14-164c(f), which grants the DMV the legal authority to:

"...establish a program for the on-road testing of motor vehicles subject to this chapter. The program shall test not less than one-half of one per cent of vehicles every inspection cycle under conditions of highway operation in order to provide information concerning the emission performance of such in-use vehicles. Testing may be performed by means of remote sensing devices, or roadside pullovers followed by tailpipe emissions testing using a suitable, portable device and recording system. Owners of vehicles that have previously been through scheduled periodic inspection and passed, and are found by on-road testing to be high emitters, in accordance with the standards established under subsection (b) of this section and the regulations adopted under subsection (c) of this section, shall be notified that their vehicles are required to pass an out-of-cycle follow-up inspection at an inspection station..."

Based upon the language of C.G.S. § 14-164c(f), which the Department submitted to the EPA on June 24, 1998, I do not recommend amending § 27 in accordance with the EPA's comment.

Comment: The EPA suggested that the State of Connecticut consider postponing the implementation of ASM 2525 final maximum allowable emission standards or switching to intermediate maximum allowable emission standards, but advised the State of Connecticut to first review its attainment plans to ensure such postponement or switch will not impact the achievement of required emission reductions.

Response: The Department agrees with the EPA's suggestion and has amended § 27 to postpone the implementation of ASM 2525 final maximum allowable emission standards from December 31, 1999 to December 31, 2001. It is important to note that such amendment does not affect the Ozone Attainment Demonstration for the Southwest Connecticut Severe Ozone Non-Attainment

Area or the Ozone Attainment Demonstration for the Greater Connecticut Serious Ozone Non-Attainment Area because the State of Connecticut intends to complete at least one full inspection cycle using the final ASM 2525 maximum allowable emission standards prior to the November 15, 2007 ozone attainment date.

Additional Comments of the Hearing Officer

In addition to changes made in accordance with comments received during the public comment period, several typographical and formatting inconsistencies in the proposed regulation set forth in Part IV are corrected in the final wording of the proposed regulation set forth in Part VII.

VII. Final Wording of the Proposed Regulation

Section 22a-174-27 of the Regulations of Connecticut State Agencies is amended to read as follows:

Sec. 22a-174-27. Emission standards for periodic motor vehicle inspection and maintenance.

- (a) **Applicability.** This section shall apply to any owner or operator of a 1968 and later model year motor vehicle [which] THAT is not an antique, rare or special interest motor vehicle as defined in section 14-1 of the [general statutes] CONNECTICUT GENERAL STATUTES. This section shall not apply to motor vehicles [which] THAT are exempt pursuant to SUBSECTION (c) OF section 14-164c[(c)] of the [general statutes] CONNECTICUT GENERAL STATUTES.
- (b) **Definitions.** [For purposes of this section the definitions contained in subdivisions (1) through (16) shall apply.] AS USED IN THIS SECTION:
- (1) "ASM 2525" or "Acceleration Simulation Mode [test] TEST" means an emissions test performed at a steady state of twenty-five (25) miles per hour (mph) and [which utilizes] UTILIZING a dynamometer load set to simulate TWENTY-FIVE PERCENT (25%) of the power required to accelerate the particular vehicle being tested at 3.3 mph[/] PER second until a speed of TWENTY-FIVE (25) mph is attained. Such test shall analyze exhaust gas concentration, [by] THROUGH percent BY VOLUME (VOL. %) OF CO and PARTS PER MILLION BY VOLUME (ppm) of NO and HC, and compare the test results to the maximum allowable exhaust emission standards for CO, NO and HC as published by the United

States Environmental Protection Agency in SUBSECTION (a) OF section 85.1[(a)] of the "Acceleration Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications, Technical Guidance" [,] EPA-AA-RPSD-IM-96-2 (July, 1996) except that the word "should" in subdivisions (a)(1) and (a)(2) of section 85.1[(a)] shall be replaced with the word "shall[.]";

(2) "CO" means carbon monoxide;

[(3)] "CFR" means Code of Federal Regulations;

[(4)] (3) "HC" means hydrocarbon;

[(5)] (4) "Composite Motor Vehicle" or "COMPO" means a vehicle [which] THAT is constructed from the component parts of two or more motor vehicles of different model year or vehicle type;

[(6)] "g/mi" means grams per mile;

[(7)] (5) "Gross [Vehicle Weight Rating] VEHICLE WEIGHT RATING" or "GVWR" means the value specified by the manufacturer as the maximum loaded weight of a single or a combination (articulated) vehicle, or its registered gross weight, whichever is greater. The GVWR of a combination (articulated) vehicle commonly referred to as the "[Gross Combination Weight Rating] GROSS COMBINATION WEIGHT RATING" or GCWR is the GVWR of the power unit plus the GVWR of the towed unit or units;

[(8)] (6) "[idle] IDLE EXHAUST test procedure with loaded preconditioning" means an analysis of exhaust gas concentration, by percent CO and HC, in accordance with SECTION 4 OF "[recommended] RECOMMENDED I/M [short test procedures] SHORT TEST PROCEDURES for the 1990's: Six Alternatives" [section 4,] EPA-AA-TSS-I/M-90-3 (January 1991);

[(9)] (7) "[light-duty] LIGHT-DUTY truck" or "LDT" means a motor vehicle rated at TEN-THOUSAND (10,000) [lbs.] POUNDS GVWR or less and is designed:

- (A) [to] TO transport property or ten (10) or more persons, not including the operator; or
- (B) [with] WITH features enabling off-street or off-highway operation and use;

[(10)] (8) "[light-duty] LIGHT-DUTY vehicle" or "LDV" means a motor vehicle that is designed:

- (A) [to] TO carry not more than ten (10) persons, including the operator; and
- (B) [to] TO transport persons and their property with at least fifty percent (50%) of the total area enclosed by the outermost body contour lines, excluding the area enclosing the engine;

[(11)] (9) "[loaded] LOADED vehicle weight" or "[lvw] LVW" means vehicle curb weight plus [three hundred] THREE-HUNDRED (300) pounds [(300 lbs.)];

[(12)] (10) "NO" means nitric oxide;

(11) "ON-ROAD TESTING" MEANS THE MEASUREMENT OF HC, CO AND NOX EMISSIONS ON ANY ROAD OR ROADSIDE WITHIN THE STATE OF CONNECTICUT;

[(13)] "ppm" means parts per million by volume;]

[(14)] (12) "THC" means total hydrocarbons; AND

[(15)] (13) "[vehicle] VEHICLE curb weight" is defined as in 40 CFR section 86.082-2[; and].

[(16)] "vol. %" means percent by volume.]

(c) Emission standards.

- (1) Idle exhaust emission standards. Maximum allowable emissions for any vehicle subject to an idle exhaust [emission] test PROCEDURE with loaded preconditioning administered by the Commissioner of Motor Vehicles or his designee shall be:

Vehicle Model Year	CO (Vol. %)	THC (ppm)
1968-69	5.00	500
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- (2) ASM 2525 exhaust emission standards. Maximum allowable emissions for any vehicle subject to an ASM 2525 exhaust emission test administered by the Commissioner of Motor Vehicles or A [his] designee OF THE COMMISSIONER OF MOTOR VEHICLES shall be as published by the United States Environmental Protection Agency in SUBDIVISION (a)(1) of section 85.1[(a)] of the "Acceleration Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications, Technical Guidance" EPA-AA-RPSD-IM-96-2 (July, 1996). After December 31, [1999] 2001, maximum allowable emissions for any vehicle subject to an ASM 2525 exhaust emission test administered by the Commissioner of Motor Vehicles or [his] A designee OF THE COMMISSIONER OF MOTOR VEHICLES shall be as published by the United States Environmental Protection Agency in SUBDIVISION (a)(2) of section 85.1[(a)] of the "Acceleration

Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications, Technical Guidance" EPA-AA-RPSD-IM-96-2 (July, 1996).

(3) Visible emission standards. Maximum allowable visible emissions for diesel powered LDVs and LDTs of model years 1968 and later, shall be TWENTY PERCENT (20%) particulate opacity as determined by any opacity meter.

(4) ON-ROAD TESTING EMISSION STANDARDS. MAXIMUM ALLOWABLE EMISSIONS FOR ANY VEHICLE SUBJECT TO AN ON-ROAD EMISSIONS TEST ADMINISTERED BY THE COMMISSIONER OF MOTOR VEHICLES OR A DESIGNEE OF THE COMMISSIONER OF MOTOR VEHICLES SHALL BE SIX PERCENT (6%) CO BY VOLUME.

(d) **Undetermined GVWR.** Where the gross vehicle weight rating cannot be determined, the emission standard for LDVs shall apply.

(e) **Composite MOTOR vehicles.** Where the vehicle is designated "COMPO" in the "make" field of the registration certificate, the emission standards for model year 1968 shall apply.

(f) **Alteration or replacement of vehicle engine.**

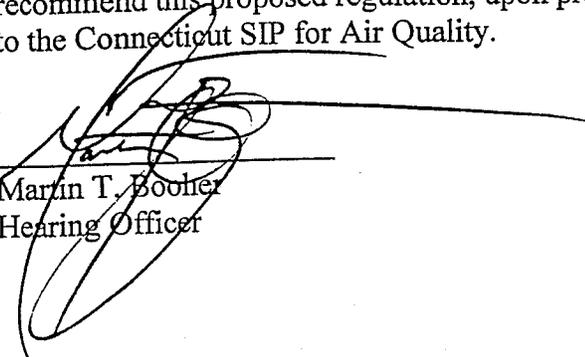
(1) Any vehicle with an engine other than the one originally installed by the manufacturer or an identical replacement of such engine shall be subject to the test procedures and standards for the chassis type and model year of the vehicle.

(2) Any vehicle that is re-engineered from an internal combustion gasoline engine to another combustion or fuel type, shall be subject to the test procedures and standards for a gasoline powered vehicle.

STATEMENT OF PURPOSE: To adopt maximum allowable emission standards for on-road testing as necessary to implement 40 CFR § 51.371 of the enhanced inspection and maintenance program and to preserve the applicability of current emissions standards for two additional years.

VIII. Conclusion

Based upon the comments submitted by interested parties and addressed in this Hearing Report, I recommend the proposed final regulation, as contained herein, be submitted by the Commissioner of Environmental Protection for approval by the Attorney General and the Legislative Regulations Review Committee. Based upon the same considerations, I also recommend this proposed regulation, upon promulgation, be submitted to the EPA as a revision to the Connecticut SIP for Air Quality.



Martin T. Booher
Hearing Officer

4/24/00
Date

Attachment 1
List of Commentors

1. David B. Conroy, Manager
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