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

Sec. 22a-174-27. Emission standards and on-board diagnostic II test requirements for periodic motor vehicle inspection and maintenance.

(a) Applicability.

This section shall apply to any owner or operator of a 1979 and later model year motor vehicle that is not an antique, rare or special interest motor vehicle as defined in section 14-1 of the Connecticut General Statutes. This section shall not apply to motor vehicles that are exempt from the periodic air pollution control system inspection and maintenance requirements pursuant to subsection (c) of section l4-l64c of the Connecticut General Statutes.

(b) Definitions. As used in this section:

(l) "ASM 2525" or "Acceleration Simulation Mode Test" means an emissions test to analyze exhaust emissions of CO, NO, and HC performed at a steady state of twenty-five (25) miles per hour (mph) and utilizing a dynamometer load set to simulate twenty-five (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;

(2) "CO" means carbon monoxide;

(3) "Composite Motor Vehicle" means a vehicle that is designated "COMP" or "COMPO" in the "make" field of an applicable Connecticut motor vehicle registration certificate;

(4) "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;

(5) "HC" means hydrocarbon;

(6) "Heavy-duty gasoline powered vehicle" means any motor vehicle fueled by gasoline that is rated at greater than eight thousand five hundred (8500) pounds GVWR and less than or equal to ten thousand (10,000) pounds GVWR;

(7) "Light-duty truck" or "LDT" means a motor vehicle rated at eight thousand five hundred (8500) pounds 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;

(8) "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 (50%) of the total area enclosed by the outermost body contour lines, excluding the area enclosing the engine;

(9) "Loaded opacity test procedure" means an analysis of exhaust opacity measured by an opacity meter and utilizing a dynamometer load;

(10) "Loaded vehicle weight" or "LVW" means vehicle curb weight plus three hundred (300) pounds;

(11) "Model year" means a motor vehicle manufacturer's annual production period that includes January 1 of such calendar year or, if the manufacturer has no annual production period, the production period that includes January 1 of such year;

(12) "Modified snap-acceleration smoke opacity test procedure" means an analysis of exhaust opacity in accordance with a variant of the "snap-acceleration smoke opacity test" defined in section 14-164i-1 of the Regulations of Connecticut State Agencies;

(13) "NO" means nitric oxide;

(14) "On-board diagnostic II system" or "OBD II system" means a computerized self-diagnostic system in a LDV or LDT that registers faults indicating malfunctions and deteriorations of the LDV's OR LDT's exhaust and evaporative emission control components;

(15) "Pre-conditioned two speed idle test procedure" means an analysis of exhaust emissions concentrations of CO, in percent by volume (VOL. %), and HC, in parts per million (ppm); and

(16) "Vehicle curb weight" is defined as in 40 CFR 86.082-2.

(c) Emission standards.

(1) Pre-conditioned two speed idle test standards shall be as follows:

(A) Maximum allowable emissions for any light-duty truck or light-duty vehicle subject to a pre-conditioned two speed idle test procedure administered by the commissioner of motor vehicles or his designee shall be as identified per vehicle model year in Table 27-1; and

Table 27-1. Pre-conditioned two speed idle test standards for light-duty trucks and light-duty vehicles.

Vehicle Model Year	CO (Vol. %)	HC (ppm)
1979	3.00	600
1980	3.00	600
1981 and later	1.20	220

(B) Maximum allowable emissions for any heavy-duty gasoline powered vehicle subject to a pre-conditioned two speed idle test procedure administered by the commissioner of motor vehicles or his designee shall be as identified per vehicle model year in Table 27-2.

Table 27-2. Pre-conditioned two speed idle test standards for heavy-duty gasoline powered vehicles.

Vehicle Model Year	CO (VOL. %)	HC (ppm)
1980 and earlier	3.0	600
1981 through 1987	1.6	450
1988 and later	1.6	300

(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 designee of the Commissioner of Motor Vehicles shall be as published by the United States Environmental Protection Agency in subdivisions (a)(2) and (a)(3) of section 85.1 of the "Acceleration Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications," Final Technical Guidance, EPA420-B-03-008 (October 2003).

(3) Loaded opacity test standards. Maximum allowable visible emissions for diesel powered LDVs and LDTs of model years 1979 and later subject to a loaded opacity test procedure administered by the commissioner of motor vehicles or his designee, shall be twenty percent (20%) particulate opacity.

(4) Modified snap-acceleration smoke opacity test standards. Maximum allowable visible emissions for any diesel powered vehicle subject to a modified snap-acceleration smoke opacity test procedure administered by the commissioner of motor vehicles or his designee shall be as specified in section 14-164i-2 of the Regulations of Connecticut State Agencies.

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

(e) Composite motor vehicles. For 2005 and earlier model year composite motor vehicles, the maximum allowable emissions shall be 4.0 VOL. % CO and 800 ppm HC. For 2006 and later model year composite motor vehicles, the maximum allowable emissions shall be 1.2 VOL. % CO and 220 ppm HC.

(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.

(g) On-board diagnostic II system test procedures.

The test sequence for any inspection of OBD II systems on model year 1996 and newer LDV's and LDT's administered by the commissioner of motor vehicles or his designee shall meet the requirements of 40 CFR 51 and 40 CFR 85 and shall include all procedures set forth in 40 CFR 85.2222.

Statement of Purpose: This amendment updates the motor vehicle emissions testing program standards implemented by the Commissioner of Motor Vehicles to conform to current requirements of the U.S. Environmental Protection Agency (EPA). Specifically, the amendment: (1) defines new on-board diagnostic test requirements; (2) deletes unnecessary on-road testing standards; (3) adds new emissions standards for vehicles subject to a pre-conditioned two speed idle exhaust emissions test procedure; (4) requires ASM 2525 exhaust emission standards

consistent with federal guidance but for which the federal government has not adopted analogous standards; and (5) adds new emissions standards for diesel vehicles subject to a modified snap-acceleration smoke opacity test. The amendment will be submitted to EPA for approval as a revision to the State Implementation Plan.