

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-852  
Relating to Certification of New Motor Vehicles

FORD MOTOR COMPANY

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1999 model-year Ford Motor Company exhaust emission control systems are certified as described below for medium-duty vehicles:

Emission Standard Category: Super-Ultra-Low-Emission Vehicle (SULEV)

Fuel Type: Compressed Natural Gas (CNG)

Engine Family: XFMXT05.4RP5 Displacement: 5.4 Liters (326 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Dual Three Way Catalytic Converters (two)
- Three Way Catalytic Converter
- Dual Heated Oxygen Sensors
- Sequential Multiport Fuel Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The SULEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Test Weight</u> <u>(lbs.)</u>	<u>Miles</u>	<u>Non-Methane</u> <u>Organic Gases</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>	<u>Formaldehyde</u>
5751-8500	50,000	0.059	2.5	0.3	0.006
	120,000	0.084	3.7	0.45	0.008

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a reactivity adjustment factor (RAF) for 1999 model-year CNG-fueled medium-duty SULEVs.

BE IT FURTHER RESOLVED: That, as of the date of this order, the Air Resources Board has not proposed or adopted a RAF for medium-duty SULEVs operated on CNG. At the proposal of the manufacturer for the certification of the aforementioned engine family, and based on available data and analysis showing there is a strong likelihood that the RAF for such vehicles will be less than 1.000, the applicable RAF for the listed engine family shall be treated for all purposes relating to this certification as:

Reactivity Adjustment Factor for NMOG Mass Emission: 1.000

The SULEV certification exhaust emission values for this engine family in grams per mile are:

<u>Test Weight</u> <u>(lbs.)</u>	<u>Miles</u>	<u>Non-Methane</u> <u>Organic Gases</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>	<u>Formaldehyde</u>
5751-8500	50,000	0.010	0.3	0.1	0.00004
	120,000	0.017	0.4	0.26	0.00004

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the medium-duty vehicle phase-in requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" (Title 13, California Code of Regulations, Section 1960.1(h)(2)).

BE IT FURTHER RESOLVED: That under the submitted medium-duty vehicle phase-in compliance plan, if the manufacturer incurs "Vehicle Equivalent Debits" for the aforementioned model year due to the manufacturer's failure to produce and deliver for sale in California the equivalent quantity of medium-duty vehicles certified to low-emission vehicle and/or ultra-low-emission vehicle exhaust emission standards required by the above-referenced standards and test procedures, all "Vehicle Equivalent Debits" incurred by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 16<sup>th</sup> day of July 1998.



R. B. Summerfield, Chief  
Mobile Source Operations Division

1999 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET Page 1  
 PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY Exh Eng Fam: XFMXT05.4RP5 Evap Fam: XFMXR0000ZYK  
 All Engine Codes in Engine Family: CA 49S 50S X AB965 ORVR: Yes No X  
 Exh Std: CA Tier-1 TLEV LEV ULEV SULEV X EPA TIER-1 \_\_\_\_\_  
 Veh Class(es): PC LDT1 LDT2 MDV1 MDV2 MDV3 X MDV4 MDV5  
 Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1,MDV1,MDV2,MDV3,MDV4)  
 Fuel Type(s): Dedicated X Flex Fuel \_\_\_\_\_ Dual-Fuel \_\_\_\_\_ Bi-Fuel \_\_\_\_\_  
 Gasoline \_\_\_\_\_ Diesel \_\_\_\_\_ M85 \_\_\_\_\_ CNG X LPG \_\_\_\_\_ Other (specify) \_\_\_\_\_  
 Exh Emiss Test Fuel(s): Indo \_\_\_\_\_ CBG \_\_\_\_\_ CNG X LPG \_\_\_\_\_ M85 \_\_\_\_\_ Other (specify) \_\_\_\_\_  
 Diesel: 13 CCR 2282 \_\_\_\_\_ or 40CFR 86.113-90 \_\_\_\_\_ or -94 \_\_\_\_\_  
 Evaporative Emission Test Procedure: California \_\_\_\_\_ Federal X  
 Service Accumulation: Std AMA \_\_\_\_\_ Mod AMA X Mfr. ADP \_\_\_\_\_ Other (Specify) \_\_\_\_\_  
 NMOG Test Procedure: N/A \_\_\_\_\_ Std X Equip \_\_\_\_\_ R/L Test Procedure: SHED \_\_\_\_\_ Pt Source X  
 Engine Configuration: V-8 Displacement: 5.4L (326) Liters (Cubic Inches)  
 Valves/Cyl: 2 Rated HP: 195 @ 4500 RPM  
 Engine: Front X Mid \_\_\_\_\_ Rear \_\_\_\_\_ Drive: FWD \_\_\_\_\_ RWD X 4WD-FT \_\_\_\_\_ 4WD-PT \_\_\_\_\_  
 Exhaust Control System and Special Features: 2TWC(2), TWC, 2HO2S, SFI  
 (Use abbreviations per SAE J1930 JUN93)

Engine Code (also list CA/49ST/50ST	Vehicle Models (if coded see attachment)	Trans. Type A4-Automatic M5-Manual	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
9VZAANBA/N		A4			XC3F-APB	N/A	F75A-5G218-KE (CC-RH/LH) F75A-5E214-MD (UB1-RH/LH) F75A-5E212-ACF (UB2)
	F-250 4X2 RKL-NGV F-250 4X2 RKL-NGV		6500 6500	13.3 14.6*			

\* WITH A/C

Engine Family: XFMXT05.4RP5

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 Revised: