File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-788
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 1998 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: WFMXT05.4RP6 Displacement: 5.4 Liters (326 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Dual Warm Up Three Way Catalytic Converters
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:

Test Weight (lbs.)	Miles	Non-Methane Organic Gases	Carbon Monoxide	Nitrogen Oxides	Formaldehyde
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 1998 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:

Test Weight (lbs.)	Miles	Non-Methane Organic Gases	Carbon Monoxide	Nitrogen Oxides	Formaldehyde
5751-8500	50,000	0.013	0.5	0.1	0.001
	120,000	0.018	0.8	0.23	0.002

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 manufacturer is certifying the listed vehicle models with a partially complying on-board diagnostic system for the aforementioned model year pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(5.1) ("Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines").

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 7th day of August 1997.

R. B. Summerfield, Chief
Mobile Source Operations Division

E.O.# 4-10788

1998 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. **FORD MOTOR COMPANY** Exh Eng Fam: **WFMXT05.4RP6** Evap Fam: **WFMXR0000ZYK**

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 Equiv___ R/L Test Procedure: SHED____ Pt Source_ _

Engine Configuration: V-8 Displacement: 5.4L (326) Liters (Cubic Inches)
Valves/Cyl: 2 Rated HP: 193 @ 4250 RPM
Engine: Front X Mid___ Rear___ Drive: FWD___ RWD X 4WD-FT___ 4WD-PT___

Exhaust Control System and Special Features: 2WU-TWC, 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.
746NR05A/N		A			F7UF-ACB	N/A	F7UA-5F250-JD (CC-RH/LH) F7UA-5E212-TD (UB)
	E-250 - RVL - NGV		7000	15.1			
	E-250 - RVL - NGV		7000	16.5*			
	E-250 - SVL - NGV		7000	15.1			
	E-250 - SVL - NGV		7000	16.5*			
	E-350 - RVL - NGV		7500	16.5			
	E-350 - RVL - NGV		7500	17.9*			
	E-350 - SVL - NGV		7500	15.6			
	E-350 - SVL - NGV		7500	17.0*			
	E-350 - SWL -NGV - 15		7500	14.7			
	E-350 - SWL -NGV - 15		7500	16.1*			
	E-350 - SWL -NGV - 12		8000	14.7			
	E-350 - SWL -NGV - 12		8000	16.1*			
	E-350 - CLUB WAGON		7500	15.4			
	E-350 - CLUB WAGON		7500	16.8*			

*** WITH A/C**

Engine Family: WFMXT05.4RP6

Issue Date: 7-11-97
Revised: 9-24-97