

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-822
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 passenger cars:

Emission Standard Category: Ultra-Low-Emission Vehicle (ULEV)

Fuel Type: Compressed Natural Gas (CNG)

Engine Family: XFMXV04.6VP5 Displacement: 4.6 Liters (278 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

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

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

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

<u>Miles</u>	<u>Non-Methane Organic Gases</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>
50,000	0.040	1.7	0.2	0.008
100,000	0.055	2.1	0.3	0.011

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a reactivity adjustment factor (RAF) for CNG-fueled passenger car ULEVs, and the addition of the product of the methane exhaust emission value and a RAF for methane emission of CNG-fueled passenger car ULEVs.

Reactivity Adjustment Factor for NMOG Mass Emission: 0.43

Reactivity Adjustment Factor for Methane Mass Emission: 0.0047

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

<u>Miles</u>	<u>Non-Methane Organic Gases</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>
50,000	0.008	0.6	0.1	0.001
100,000	0.011	0.9	0.1	0.001

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 fleet average NMOG exhaust mass emission 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."

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits 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 shall be clearly labeled as "low-emission motor vehicle" pursuant to the requirements of Health and Safety Code Section 43802(a).

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 29th day of June 1998.



R. B. Summerfield, Chief
Mobile Source Operations Division

1999 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANY

Eng. Family: XFMXV04.6VP5

Pass Car: X (PC) Light-Duty Truck: (T1/T2)

Med-Duty Vehicle: (M1/M2/M3/M4/M5)

Standards Type: ULEV (Tier 0/1, AB965, TLEV, LEV, ULEV) Vehicle Type: (FFV, HEV (type A/B/C))

NMOG Test Proc: Equivalent Service Accum: Std AMA

Fuel Type: ^{COMPRESSED} NATURAL GASOLINE (CNG)

Evaporative Family: XFMXR0000ZYK

^{Dedicated}

ORVR: No Evap Std: N/A

Engine Config: V-8

Liter (CID): 4.6L (278)

HP: 175 at 4500 rpm

Engine: Front X Mid. Rear Drive: FWD RWD X 4WD-FT 4WD-PT

Exhaust ECS & Special Features: (incl. CARB, MFI) 2TWC (2), 2 HO2S (2), EGR, SFI
(Use abbreviations per SAE J1930 May91)

Engine Code (Cert Std.)	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW	DPA	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalyst Part No. (5E212) (5E214)
818LR06A	CROWN VIC	A	4500	9.4	F8AF-AC	F8AE-AA	F7AC-DA F6AC-DA
818LR06A	CROWN VIC w/Aux fuel tank	A	4750	9.1	"	"	"