

File

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-749  
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 passenger cars:

Emission Standard Category: Low-Emission Vehicle (LEV)

Fuel Type: Gasoline

Engine Family: WFMXV04.6AAA Displacement: 4.6 Liters (280 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 LEV 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>	<u>Carbon Monoxide (20°F)</u>
50,000	0.075	3.4	0.2	0.015	10.0
100,000	0.090	4.2	0.3	0.018	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.94

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a 0.94 RAF for 1998 model-year LEVs. The LEV 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>	<u>Carbon Monoxide (20°F)</u>
50,000	0.064	0.9	0.1	0.001	3.1
100,000	0.079	1.2	0.1	0.001	n/a

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 vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the "California Refueling Emission Standards and Test Procedures for 1998 and Subsequent Model Motor Vehicles," Title 13, California Code of Regulations, Section 1978, and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

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 vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit 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 "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 7<sup>th</sup> day of October 1997.

*Raphael Suonowitz*

for R. B. Summerfield, Chief  
Mobile Source Operations Division

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANY

Eng. Family: WFMXV04.6AAA

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

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

Fuel Type: Dedicated Gasoline

Standards Type: LEV

Exh. Cert. : PHASE II  
Fuel

Evaporative Family: WFMXR0115BAE

ORVR: YES

R/L T.P. Pt. Source

Evap T.P. Exd

Engine Config: V-8 Liter (CID): 4.6L (280)

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

NMOG T.P. Eq. 4

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

Service Accum: ADP

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.
818MR08A	CROWN VIC.	A	4250	10.5	F8AF-EC	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818MR08A	GRAND MARQ.	A	4250	10.5	F8AF-EC	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818NR08A	CROWN VIC.	A	4250	10.5	F8AF-FD	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818NR08A	GRAND MARQ.	A	4250	10.5	F8AF-FD	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818QR08A	TOWN CAR	A	4250	9.8	F8AF-DC	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR08A	TOWN CAR	A	4250	10.7 10.5 <sup>(1)</sup>	F8AF-FD	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB

*P235/60R16*  
*P225/60R16*

(1) DPA DIFFERENCE DUE TO TIRES

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANY Eng. Family: WFMXV04.6AAA

Pass Car: X (PC) Light-Duty Truck:     (T1/T2) Med-Duty Vehicle:     (M1/M2/M3/M4/M5)

Standards Type: LEV (Tier 0/1, AB965, TLEV, LEV, ULEV) Vehicle Type: (FFV, HEV (type A/B/C))      
 Fuel Type: PHASE II Evaporative Family: WFMXR0115BAE

Engine Config: V-8 Liter (CID): 4.6L (280)

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

Exhaust ECS & Special Features: (incl. CARB, MFI <sup>(2)</sup> 2TWC(2)/2HO2S/ 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.
818MR10A	CROWN VIC.	A	4250	10.5	F8AF-EE	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818MR10A	GRAND MARQ.	A	4250	10.5	F8AF-EE	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818NR10A	CROWN VIC.	A	4250	10.5	F8AF-FF	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818NR10A	GRAND MARQ.	A	4250	10.5	F8AF-FF	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818QR10A	TOWN CAR	A	4250	9.8	F8AF-DE	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR10A	TOWN CAR	A	4250	10.7 →10.5 <sup>(1)</sup>	F8AF-EF	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB

*P235/60R16*  
*P225/60R16*

<sup>(1)</sup> DPA DIFFERENCE DUE TO TIRES (10.5 - P225/MICH vs 10.7 - P235/MICH)

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANY Eng. Family: WFMXV04.6AAA

Pass Car: X (PC) Light-Duty Truck:     (T1/T2) Med-Duty Vehicle:     (M1/M2/M3/M4/M5)

Standards Type: LEV (Tier 0/1, AB965, TLEV, LEV, ULEV) Vehicle Type: (FFV, HEV (type A/B/C))  
 Fuel Type: PHASE II Evaporative Family: WFMXR0115BAE

Engine Config: V-8 Liter (CID): 4.6L (280)

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

Exhaust ECS & Special Features: (incl. CARB, MFI <sup>(2)</sup> 2TWC(2)/2HO2S/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.
818MR11A	CROWN VIC.	A	4250	10.5	F8AF-EF	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818MR11A	GRAND MARQ.	A	4250	10.5	F8AF-EF	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818NR11A	CROWN VIC.	A	4250	10.5	F8AF-FG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818NR11A	GRAND MARQ.	A	4250	10.5	F8AF-FG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818QR11A	TOWN CAR	A	4250	9.8	F8AF-DF	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR11A	TOWN CAR	A	4250	10.7 10.5 <sup>(1)</sup>	F8AF-EG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB

*P235/60R16*  
*P225/60R16*

<sup>(1)</sup> DPA DIFFERENCE DUE TO TIRES 10.7/P235/MICH - 10.5/P225/MICH

Date Issued:  
Revised:

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANY Eng. Family: WFMXV04.6AAA  
 Pass Car: X (PC) Light-Duty Truck:     (T1/T2) Med-Duty Vehicle:     (M1/M2/M3/M4/M5)  
 Standards Type: LEV (Tier 0/1, AB965, TLEV, LEV, ULEV) Vehicle Type: (FFV, HEV (type A/B/C))      
 Fuel Type: PHASE II Evaporative Family: WFMXR0115BAE  
 Engine Config: V-8 Liter (CID): 4.6L (280)  
 Engine: Front X Mid     Rear     Drive: FWD     RWD X 4WD-FT     4WD-PT      
 Exhaust ECS & Special Features: (incl. CARB, MFI 2TWC(2)/2HO2S<sup>(2)</sup>/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.
818SR11A	TOWN CAR LIMOUSINE	A	4750	10.6	F8vF-EG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR11A	TOWN CAR LIMOUSINE	A	5250	10.6	F8vF-EG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR11A	TOWN CAR LIMOUSINE	A	5500	10.6	F8vF-EG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR11A	TOWN CAR LIMOUSINE	A	6000	10.6	F8vF-EG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR11A	TOWN CAR HEARSE	A	5500	11.8	F8vF-EG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB

20.09.17.02 -3

Date Issued:  
 Revised: DEC 05 1997

## 1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: FORD MOTOR COMPANYEng. Family: WFMXV04.6AAAPass Car: X (PC) Light-Duty Truck:    (T1/T2)Med-Duty Vehicle:    (M1/M2/M3/M4/M5)Standards Type: LEV (Tier 0/1, AB965, TLEV,LEV,ULEV) Vehicle Type: (FFV,HEV(type A/B/C))   Fuel Type: PHASE II Evaporative Family: WFMXR0115BAEEngine Config: V-8 Liter (CID): 4.6L (280)Engine: Front X Mid.    Rear    Drive: FWD    RWD X 4WD-FT    4WD-PT   Exhaust ECS & Special Features:(incl. CARB, MFI 2TWC(2)/2HO2S<sup>(2)</sup>/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.
818MR12A	CROWN VIC.	A	4250	10.5	F8VF-EG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818MR12A	GRAND MARQ.	A	4250	10.5	F8VF-EG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818NR12A	CROWN VIC.	A	4250	10.5	F8VF-FH	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818NR12A	GRAND MARQ.	A	4250	10.5	F8VF-FH	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818QR12A	TOWN CAR	A	4250	9.8	F8VF-DG	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR12A	TOWN CAR	A	4250	10.7 10.5 <sup>(1)</sup>	F8VF-EH	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR12A	TOWN CAR LIMOUSINE	A	4750	10.6	F8VF-EH	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB

20.09.17.02 -5

Date Issued:

Revised:

DEC 08 1997



E0#A-10-749

818SR12A	TOWN CAR LIMOUSINE	A	5250	10.6	F8VF-EH	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR12A	TOWN CAR LIMOUSINE	A	5500	10.6	F8VF-EH	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR11A	TOWN CAR LIMOUSINE	A	6000	10.6	F8VF-EH	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB
818SR11A	TOWN CAR HEARSE	A	5500	11.8	F8VF-EH	F6AE-BA	F8AC-5E212-AA F8AC-5E212-AB F8AC-5E214-AA F8AC-5E214-AB

(1) DPA DIFFERENCE DUE TO TIRES (10.5 - P225/MICH vs 10.7 - P235/MICH)

20.09.17.02 -6

Date Issued:

Revised:

08 1997