

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-782
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: Low-Emission Vehicle (LEV)

Fuel Type: Gasoline

Engine Family: WFMXA05.4JGC Displacement: 5.4 Liters (326 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 non-methane organic gases (NMOG), carbon monoxide (CO), oxides of nitrogen (NOx), and formaldehyde (HCHO) LEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Test Weight</u> <u>(lbs.)</u>	<u>Miles</u>	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>	<u>HCHO</u>	<u>CO (20°F)</u>
5751-8500	50,000	0.195	5.0	0.6	0.022	12.5
	120,000	0.280	7.3	0.9	0.032	n/a

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

The certification exhaust emission values set forth for 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>Test Weight</u> <u>(lbs.)</u>	<u>Miles</u>	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>	<u>HCHO</u>	<u>CO (20°F)</u>
5751-8500	50,000	0.080	1.5	0.1	0.001	4.2
	120,000	0.101	2.0	0.3	0.002	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 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 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 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 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 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 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 25th day of July 1997.



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

E.O.# A-10-782

1998 MODEL YEAR SUPPLEMENTAL DATA SHEET
EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS
PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY Exhaust Engine Family: WFMXA05.4JGC

Engine Code Types: CA X 49S 50S

Evap Emissions Family: WFMXE0155B1F/B1G

Exh Std: Tier-0 Tier-1 TLEV LEV X ULEV ZEV EPA TIER-0 TIER-1

NMOG Test Proc.: Equiv.
Evap Std: 50K Useful Life with R/L X, R/L Test Proc.: Point Source **ORUR: NO**
Service Accum: Med. AMA

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)

Exh Cert Fuel(s): Indo Ph2 X Diesel: 13 CCR 2282 or 40CFR 86.113-90 or -94
M85 CNG LPG Other (specify)

Fuel Type(s): Dedicated Flex Fuel Dual-Fuel
Gasoline X Diesel M85 CNG LPG Other (specify)

Hybrid: Type A B C , APU Cycle (eg., Otto, Diesel, Turbine)

Engine Config V-8 Displacement: 5.4L(326) Liters (Cubic Inches)

Valves/Cyl: 2 Rated HP: 230 @ 4250 RPM

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

Exhaust Control System and Special Features 2TWCE, HO2SE, EGR, SFI
(Use abbreviations per SAE J1930 SEP91)

Engine Code (also list CA/49ST/50ST	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
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846UR00A		A			F85F-YA	F75E-CA	F85A-AA F85A-BA
	Expedition 4x2		6000	*			
	Expedition 4x4		6000	*			
	Navigator 4x2		6000	*			
	Navigator 4x4		6500	*			

* See Section 20.09.17.03

ENGINE FAMILY: WFMXA05.4JGC
ISSUED:
REVISED: **JUN 16 1997**

1998 MODEL YEAR SUPPLEMENTAL DATA SHEET
 EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS
 PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY Exhaust Engine Family: WFMXA05.4JGC
 Engine Code Types: CA X 49S___ 50S___
 Evap Emissions Family: WFMXE0155B1F/B1G
 Exh Std: Tier-0___ Tier-1___ TLEV___ LEV X ULEV___ ZEV___ EPA TIER-0___ TIER-1___
 Evap Std: 50K___ Useful Life with R/L X R/L Test Proc. Pt. Source ORVR: NO
 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)
 Exh Cert Fuel(s): Indo___ Ph2 X Diesel: 13 CCR 2282___ or 40CFR 86.113-90___ or -94___
 M85___ CNG___ LPG___ Other (specify)
 Fuel Type(s): Dedicated___ Flex Fuel___ Dual-Fuel___
 Gasoline X Diesel___ M85___ CNG___ LPG___ Other (specify)___
 Hybrid: Type A___ B___ C___, APU Cycle (eg., Otto, Diesel, Turbine)___
 Engine Config V-8 Displacement: 5.4L(326) Liters (Cubic Inches)
 Valves/Cyl: 2 Rated HP: 230 @ 4250 RPM
 Engine: Front X Mid___ Rear___ Drive: Fwd___ RWD X 4WD-FT___ 4WD-PT X

Exhaust Control System and Special Features 2 TWCE/2 HO2S/EGR, SFI
 (Use abbreviations per SAE J1930 SEP91)

Engine Code (also list CA/49ST/50ST	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
846UR05A		A			F85F-YB	F75E-CA	F85A-AA F85A-BA
	Expedition 4x2		6000	*			
	Expedition 4x4		6000	*			
	Navigator 4x2		6000	*			
	Navigator 4x4		6500	*			

* See Section 20.09.17.03

1998 MODEL YEAR CERTIFICATION REVIEW SHEET
 EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS
 PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY Exhaust Engine Family: WFMXA05.4JGC
 Engine Code Types: CA X 49S ___ 50S ___
 Evap Emissions Family: WFMXE0155B1F/B1G
 Exh Std: Tier-0 ___ Tier-1 ___ TLEV ___ LEV X ULEV ___ ZEV ___ EPA TIER-0 ___ TIER-1 ___
 Evap Std: 50K ___ Useful Life with R/L X In-Use Exh Std: Full In Use ___ Alt In Use X
 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)
 Exh Cert Fuel(s): Indo ___ Ph2 X Diesel: 13 CCR 2282 ___ or 40CFR 86.113-90 ___ or -94 ___
 M85 ___ CNG ___ LPG ___ Other (specify) ___
 Fuel Type(s): Dedicated X Flex Fuel ___ Dual-Fuel ___
 Gasoline X Diesel ___ M85 ___ CNG ___ LPG ___ Other (specify) ___
 Hybrid: Type A ___ B ___ C ___ APU Cycle (eg., Otto, Diesel, Turbine) ___
 Engine Config V-8 Displacement: 5.4L(326) Liters (Cubic Inches)
 Valves/Cyl: 2 Rated HP: 230 @ 4250 RPM
 Engine: Front X Mid ___ Rear ___ Drive: Fwd ___ RWD X 4WD-FT ___ 4WD-PT X
 Exhaust Control System and Special Features 2TWC⁽²⁾, HO2S⁽²⁾, EGR, SFI,
 (Use abbreviations per SAE J1930 SEP91)

Engine Code (also list CA/49ST/50ST	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
846UR10A		A			F85F-YC	F75E-CA	F85A-AA F85A-BA
	Expedition 4x2		6000	*			
	Expedition 4x4		6000	*			
	Navigator 4x2		6000	*			
	Navigator 4x4		6500	*			

* See Section 20.09.17.03

EO# A-10-782

Supplemental Data Sheet DPA Summary

VEHICLE LINE	ETW	CDT	NON - AC CODE	DPA	TRLHP (HP)	CDT	NON - AC CODE	DPA	TRLHP (HP)
EXPEDITION 4x2	5000	18.12	(C)	12.0	19.12	15.69	(C)	13.2	19.64
(UN93)	5250	17.03	(C)	12.0	19.00	16.17	(C)	13.2	20.01
E4OD	5500	17.75	(R)	12.0	19.10	16.65	(R)	13.2	20.36
P255/70R16 A/S TIRE	6000	18.93	(C)	12.0	19.54	17.62	(C)	13.2	20.99
E4OD	5000	15.88	(C)	12.2	19.41	15.09	(C)	13.4	20.42
P255/70R16 A/T TIRE	5250	16.54	(C)	12.2	19.57	15.64	(C)	13.4	20.69
	5500	17.20	(R)	12.2	19.71	16.19	(R)	13.4	20.94
	6000	18.51	(C)	12.2	19.98	17.30	(C)	13.4	21.38
EXPEDITION 4x4	5500	14.91	(C)	14.2	22.74	14.06	(C)	15.6	24.11
(UN93)	6000	15.95	(C)	14.2	23.19	15.06	(C)	15.6	24.56
E4OD	6500	17.00	(C)	14.2	23.57	16.07	(C)	15.6	24.93
P255/70R16 A/S TIRE									
E4OD	5500	14.79	(C)	14.6	22.92	14.03	(C)	16.0	24.16
P255/70R16 A/T TIRE	6000	15.84	(C)	14.6	23.35	14.93	(C)	16.0	24.77
	6500	16.90	(C)	14.6	23.71	15.83	(C)	16.0	25.31
E4OD	5500	14.82	(C)	14.8	22.88	13.89	(C)	16.2	24.41
P265/70R17 A/T TIRE	6000	15.71	(C)	14.8	23.54	14.82	(C)	16.2	24.96
	6500	16.59	(C)	14.8	24.15	15.75	(C)	16.2	25.44
NAVIGATOR 4x2	5500	16.51	(C)	13.8	20.53	15.50	(C)	15.2	21.87
(UN173)	6000	17.56	(C)	13.8	21.06	16.34	(C)	15.2	22.63
E4OD									
P245/75R16 A/S TIRE									
NAVIGATOR 4x4	6000	15.69	(C)	15.9	23.57	14.82	(C)	17.3	24.96
(UN173)	6500	16.67	(C)	15.9	24.04	15.77	(C)	17.3	25.41
E4OD									
P245/75R16 A/S TIRE									
NAVIGATOR 4x4	6000	16.12	(C)	15.6	22.94	15.33	(C)	17.0	24.13
(UN173)	6500	17.02	(C)	15.6	23.54	15.91	(C)	17.0	25.18
E4OD									
P255/75R17 A/T TIRE									



ENGINE FAMILY: WFMXA05.4JGC
ISSUED:
REVISED:

JUN 16 1997