State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-696 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 1997 model-year Ford Motor Company exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: VFM4.6V8G2EL Displacement: 4.6 Liters (280 Cubic Inches)

Exhaust Emission Control Systems and 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 TLEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Miles</u>	Non-Methane Organic Gases	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	<u>Formaldehyde</u>	Carbon <u>Monoxide (20⁰F)</u>
50,000	0.125	3.4	0.4	0.015	10.0
100,000	0.156	4.2	0.6	0.018	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a 0.98 RAF for 1997 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

Miles	Non-Methane Organic Gases	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	<u>Formaldehyde</u>	Carbon <u>Monoxide (20⁰F)</u>
50,000	0.066	1.0	0.1	0.001	7.5
100,000	0.074	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 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 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 "California Motor Vehicle Emission Control 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)(6.2) ("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 day of May 1996.

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Assistant Division Chief Mobile Source Division

1997AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

		Ford Motor Compa					▼ FM4.6V8G2EL	
	Evap Standard:	50K Use	ful Life with F	UL <u>X</u>	Eva	p Family:	TFM1090AYMED	
	Exhaust Std: T	ier 0 _ Tier 1 _ T	LEV X LEV	ULE	V _ ZE	V_; EPA	Tier 0 Tier 1	
	Vehicle Class(e	s): PC X LDT	1 _ LDT2 _	MDV1	MDV	2 _ MDV3	_ MDV4 _ MDV	/5 _
	MDV4)						V1, MDV2, MDV3	
		M85 _ CNG _	_ LPG Othe	er (spec	жу)			-94 _
	Fuel Type(s):	Dedicated Fle	x-Fuel Du _ LPG O	al-Fuel ther (sp	Gas ecify) _	oline X C	niesel M85 _ 	
	Hybrid: Type	ABС,	APU Cycle (e.g., Ot	tto, Dies	sel, Turbine	e)	
		<u>V-8</u> Liter						
	Engine: Front_	X Mid Rear_	_ Drive: FW	D _ R	WD X	4WD-FT	_ 4WD-PT _	
	Exhaust ECS ((Use abbrevi	& Special Feature ations per SAE J1	es: <u>SFI/2HO2</u> 1930, Sep 91)	S(2)/E(SR/2TV	VC(2)		
	Engine Code (California)	Vehicle Models	Trans. Type A-Automatic M-Manual		DPA	Ignition (PCM) Part No.	O 7 0 (O) 1 1	Catalyst
			191 (2124) (4124)			-12A650-		
-	718MR00A (CROW	FORD AFC	A	4000		-12A650-	- 9D475/9D477- F6AE-BA/F6AE-AE	-5E212-
-		(OND o	A	-	8.7 ¹ 9.9 ²	-12A650-	<u>- 9D475/9D477-</u>	-5E212- F6AC-DA/
-	(CROW	N VICTORIA)	A	4000	8.7 ¹¹ 9.9 ¹²	-12A650- F7AF-FA	<u>- 9D475/9D477-</u>	-5E212- F6AC-DA/ F6AC-DB
-	(CROW	N VICTORIA) MERCURY MFA MARQUIS)	A A	- 4000 4000	8.7 ¹ 9.9 ² 9.4 ¹ 10.1 ² 8.7 ¹ 9.9 ²	-12A650- F7AF-FA F7AF-GA	<u>- 9D475/9D477-</u> F6AE-BA/F6AE-AE	-5E212- F6AC-DA/ F6AC-DB
	(CROW	MERCURY MFA MARQUIS) FORD AFC	A A	- 4000 4000 4000	8.7 ¹ 9.9 ² 9.4 ¹ 10.1 ² 8.7 ¹ 9.9 ²	-12A650- F7AF-FA F7AF-GA	<u>- 9D475/9D477-</u> F6AE-BA/F6AE-AE	-5E212- F6AC-DA/ F6AC-DB
™ P2	(CROW (GRAND 718NR00A 718QR00A	MERCURY MFA MARQUIS) FORD AFC MERCURY MFA LINCOLN VFC	A A A	- 4000 4000 4000 4000	8.7 ¹ 9.9 ² 9.4 ¹ 10.1 ² 8.7 ¹ 9.9 ² 9.4 ¹ 10.1 ² 8.6 ¹ 10.5 ²	-12A650- F7AF-FA F7AF-GA	<u>- 9D475/9D477-</u> F6AE-BA/F6AE-AE F6AE-BA/F6AE-A	F6AC-DA/ F6AC-DB F6AC-DB F6AC-DA

ENGINE FAMILY: VFM4.6V8GZEL

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ISSUED: 5/7/96 REVISED:

1997AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer:	Ford Motor Comp	any	Exha	ust Eng	ine Family	: VFM4.6V8G2E	<u>.</u>
Evap Standard:	50K_X_ Use	eful Life with F	R/L	_ Eva	p Family:	VFM1090AYMED)
Exhaust Std: T	ier 0 _ Tier 1	TLEV <u>X</u> LEV	_ ULE	V _ ZE	V_; EP	A Tier 0 Tier 1	
Vehicle Class(6	es): PC X LDT	1 LDT2	MDV1	_ MD\	/2 _ MDV	3 MDV4 MD\	/5 _
Single Cert Std MDV4)	for Multi-Class E	ng Fam: <u>N/</u>	A (spec	ify N/A,	LDT1, ME	OV1, MDV2, MDV3	3,
Exh Cert Fuel(s): Indo Ph2	X_ Diesel: 1 _ LPG _ Oth	13 CCR er (spec	2282 _ cify)	or 40 CF	R 86.113-90 <u> </u>	-94
Fuel Type(s):	Dedicated Fle	x-Fuel Du _ LPG O	al-Fuel other (sp	Gas pecify) _	oline X	Diesel M85 _	
Hybrid: Type	A B C,	APU Cycle	(e.g., O	tto, Dies	sel, Turbin	e)	
Engine Config	<u>V-8</u> Liter	(CID): 4.6 (2	280.0)				
Engine: Front_	X Mid Rear	Drive: FW	/D _ R	WD X	4WD-FT	_ 4WD-PT _	
Exhaust ECS (Use abbrevi	& Special Feature ations per SAE J	es: <u>SFI/2HO2</u> 1930, Sep 91)	2S(2)/E()	GR/2TV	VC(2)		
Engine Code (California)	Vehicle Models	Trans. Type A-Automatic M-Manual	EΤW		Part No.	System	
			-		-12A050	- 30413130411	06214
718MR05	FORD AFC	А	4000	8.7 ^{*1} 9.9 ^{*2}	F7AF-FB	F6AE-BA/F6AE-AE	F6AC-DA F6AC-DB
	MERCURY MFA	Α	4000	9.4 ^{*1} 10.1 ^{*2}			u u
718NR05A	FORD AFC	Α	4000	8.7 ^{*1} 9.9 ^{*2}	F7AF-GB	F6AE-BA/F6AE-A	F6AC-DA F6AC-DB
	MERCURY MFA	Α	4000	9.4 ^{*1} 10.1 ^{*2}			
718QR05A 718SR05A	LINCOLN VFC	Α	4250	8.6 ^{*1} 10.5 ^{*2} 8.6 ³	F7VF-CB F7VF-DB	41	u o
718SR05A 1 P215/70R15 2 P225/60R16	LINCOLN VFL	A	4250	8.6 ³	F7VF-DB	u	"
"3 P225/75R15 ENGINE FAMILY: V						R/C 4.6-2V-00	_

1997AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer:	Ford Motor Comp	any	Exha	ust Eng	ine Family	: VFM4.6V8G2E	L
Evap Standard:	50K <u>X</u> Use	eful Life with F	R/L	_ Eva	p Family:	VFM1090AYMED)
						A Tier 0 Tier 1	
Vehicle Class(e	es): PC_X_LDT	1 _ LDT2 _	MDV1	_ MDV	/2 _ MDV:	3 MDV4 MD\	/5 _
						OV1, MDV2, MDV	
	M85 _ CNG _	_ LPG Oth	er (spec	(VIIV)		R 86.113-90 or	-94 _
Fuel Type(s):	Dedicated Fle	x-Fuel Du _ LPG O	al-Fuel ther (sp	Gas ecify) _	oline <u>X</u> [Diesel M85 _ 	
Hybrid: Type	AB C,	APU Cycle	(e.g., O	tto, Dies	sel, Turbin	e)	
Engine Config	V-8 Liter	(CID): <u>4.6 (</u> 2	280.0)				
Engine: Front_	X Mid Rear_	Drive: FW	'D R'	WD <u>X</u>	4WD-FT	_ 4WD-PT _	
Exhaust ECS (Use abbrevi	& Special Feature ations per SAE J1	es: <u>SFI/2HO2</u> 1930, Sep 91]	!S(2)/E()	3R/2TV	<u>/C(2)</u>		
Engine Code (California)	Vehicle Models	Trans. Type A-Automatic M-Manual	ETW		Part No.	Cystain	Catalyst Part No5E212-
<u> </u>			-		-12A050-	<u>- 90410130411</u>	<u> </u>
718MR06	FORD AFC	Α	4000	8.7 ^{*1} 9.9 ^{*2}	F7AF-FC	F6AE-BA/F6AE-A	F6AC-DA F6AC-DB
	MERCURY MFA	Α	4000	9.4 ^{*1} 10.1 ^{*2}			n. N
718NR06A	FORD AFC	Α	4000	8.7 ^{*1} 9.9 ^{*2}	F7AF-GC	F6AE-BA/F6AE-A	E F6AC-DA F6AC-DB
	MERCURY MFA	Α	4000	9.4 ^{*1} 10.1 ^{*2}			
718QR06A 718SR06A	LINCOLN VFC	Α	4250	8.6 ^{*1} 10.5 ^{*2} 8.6 ³	F7VF-CC	"	11
718SR06A ¹¹ P215/70R15 ¹² P225/60R16	LINCOLN VFL	A	4250	8.6 ³	F7VF-DC	u	U
¹³ P225/75R15	FM4.6V8G2EL	20.	.09.17.	02 - 3		R/C 4.6-2V-01	.3

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer:_	FORD MOTOR C	OMPANY		Eng. f	amily:\	/FM4.6V8G2EL									
Evap Standard:	50K Usefu	ıl life with R/	L_X	Evapo	rative Fam	nily: <u>VFM11</u>	90AYMED								
	Tier 0Tier1	TLEV <u>X</u> LE\	/UL	EV Z	EV; EPA	Tier OTier1									
Vehicle Class(es): PCXLDT1	_LDT2_MD	∨1_M	DV2_[MDV3_MI	DV4_MDV5_									
Single Cert Sto	for Multi-Class	Eng Fam: N/	A (spe	cify N/	A, LDT1,M	DV1,MDV2,MD	V3,MDV4)								
Exh Cert Fuel(s): IndoPh2 M85CN0	X Diesel: 13 3LPG0	3CCR :	2282 specify)	or 40CFR	86.113.90or	-94								
Fuel Type(s):	CNGLNC	SLPGOt	ther (s	pecify)		X_DieselM85_	=								
Hybrid: Type	ABC	, APU Cyle ((e.g., 0	Otto, Di	esel, Turbi	ne)	_								
Engine Config	: <u>V-8</u>	Liter (CID)													
Engine: Front	X Mid Rea	r Driv	e: FV	/D <u>X</u> _ F	RWD 4V	VD-FT 4WD-	-PT_ 								
Exhaust ECS (Use at	& Special Featur breviations per !	es:(incl. CAR SAE J1930 N	RB, MF May91	i) <u>2TW</u>	1 <u>0(2) /12</u> 1	102S(2)/EGR, S	Exhaust ECS & Special Features:(incl. CARB, MFI) 2TWC(2) /2HO2S(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 :		Part No.	EGR System Part No. -9D475/9D477	Catalyst Part No5E212-								
(Cert Std.)	(if coded see	M-Manual	4000		Part No.	System Part No. -9D475/9D477-	Part No. -5E212- F6AC-DA								
(Cert Std.)	(if coded see attachment)	M-Manual	<u> </u>	8.7 ⁽¹⁾	Part No. -12A650-	System Part No. -9D475/9D477- F6AE-BA	Part No. -5E212- F6AC-DA								
(Cert Std.)	(if coded see attachment) FORD AFC	M-Manual A	4000	8.7 ⁽¹⁾ 9.9 ⁽²⁾ 9.4 ⁽¹⁾ 10.1 ⁽²⁾	Part No. -12A650-	System Part No. -9D475/9D477- F6AE-BA	Part No. -5E212- F6AC-DA								
(Cert Std.)	(if coded see attachment) FORD AFC MERCURY MFA	M-Manual A	4000 4000	8.7 ⁽¹⁾ 9.9 ⁽²⁾ 9.4 ⁽¹⁾ 10.1 ⁽²⁾ 8.7 ⁽¹⁾	Part No. -12A650- F7AF-FC	System Part No9D475/9D477- F6AE-BA F6AE-AE	Part No. -5E212- F6AC-DA F6AC-DB								
(Cert Std.)	(if coded see attachment) FORD AFC MERCURY MFA FORD AFC	A-Automatic M-Manual A A	4000 4000 4000	8.7 ⁽¹⁾ 9.9 ⁽²⁾ 9.4 ⁽¹⁾ 10.1 ⁽²⁾ 8.7 ⁽¹⁾ 9.9 ⁽²⁾ 9.4 ⁽¹⁾ 10.1 ⁽²⁾	Part No. -12A650- F7AF-FC F7AF-GC	System Part No9D475/9D477- F6AE-BA F6AE-AE	Part No. -5E212- F6AC-DA F6AC-DB								

⁽¹⁾ P215/70R15

⁽²⁾ P225/60R16 (3) P225/75R15

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer:	FORD MOTOR CO	MPANY		Eng. F	amily: V	FM4.6V8G2EL			
Even Standard:	50K <u>X</u> Useful	life with R/L		Evapo	rative Fami	iy: <u>VFM11</u>	DOAYMED		
Evap Gtation -		C. F.V. V. I.E.V.	111.5	=\/ 7 E	V : EPA	Tier 0Tier1_	<u></u>		
Exhaust Std: Tier 0Tier1TLEV_X_LEVULEV ZEV; EPA Tier 0Tier1									
Vehicle Class(es): PC_X_LDT1LDT2MDV1_MDV2MDV3MDV4MDV5									
Single Cert Std for Multi-Class Eng Fam: N/A (specify N/A, LDT1,MDV1,MDV2,MDV3,MDV4)									
Exh Cert Fuel(s): IndoPh2_X_Diesel: 13CCR 2282or 40CFR86.113.90or -94 M85CNGLPGOther (specify)									
Fuel Type(s): DedicatedFlex-FuelDual-FuelGasoline_X_DieselM85 CNGLNGLPGOther (specify)									
Hybrid: Type	ABC,				esel, Turbir	ne)	_		
Engine Config	: <u>V-8</u>	Liter (CID):_					D-7		
Engine: Front	X Mid Rear	Drive	: FW	'D_X_ F	WD 4W	/D-FT 4WD	·P1_		
Exhaust ECS (Use al	& Special Feature	s:(incl. CARE AE J1930 M	3, MFI ay91)) <u>2TW</u>	<u>C(2) / 12</u> H	02S(2)/EGR, S	<u>Fl</u>		
	Vehicle Models (if coded see attachment)	Trans, Type 4-Automatic		DPA	Part No.		Catalyst Part No5E212-		
718MR11A	FORD AFC	A 4	1000	8.7 ⁽¹⁾ 9.9 ⁽²⁾	F7AF-FE	F6AE-BA F6AE-AE	F6AC-DA F6AC-DB		
•	MERCURY MFA	Α 4	4000	9.4 ⁽¹⁾ 10.1 ⁽²⁾					
718NR11A	FORD AFC	Α	4000	8.7 ⁽¹⁾ 9.9 ⁽²⁾	F7AF-GE	F6AE-BA F6AE-AE	F6AC-DA F6AC-DB		
	MERCURY MFA	A	4000	9.4 ⁽¹⁾ 10.1 ⁽²⁾					
718QR11A 718SR11A	LINCOLN VFC	Α	4250	8.6 ⁽¹⁾ 10.5 ⁽²⁾ 8.6 ⁽³⁾	F7VF-CE F7VF-DE				
718SR11A	LINCOLN VFL	Α	4250	8.6 ⁽³	F7VF-DE				

⁽¹⁾ P215/70R15

⁽²⁾ P225/60R16 (3) P225/75R15