

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-712  
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 Ford Motor Company 1997 model-year exhaust emission control systems are certified as described below for light-duty trucks:

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

Fuel Type: Gasoline

Engine Family: VFM4.028G2FK Displacement: 4.0 Liters (244 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Three Way Catalytic Converters (two)
- Dual Heated Oxygen Sensors
- Heated Oxygen Sensor
- 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) TLEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Miles</u>	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>	<u>HCHO</u>	<u>CO (20°F)</u>
3751-5750	50,000	0.160	4.4	0.7	0.018	12.5
	100,000	0.200	5.5	0.9	0.023	n/a

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

The certification exhaust emission values set forth for 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:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Miles</u>	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>	<u>HCHO</u>	<u>CO (20°F)</u>
3751-5750	50,000	0.107	1.4	0.1	0.002	4.0
	100,000	0.135	1.7	0.2	0.003	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is verifying 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 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)(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.).

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."

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 20<sup>th</sup> day of November 1996.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division

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

Manufacturer: Ford Motor Company

Exhaust Engine Family: VFM4.028G2FK

Evap Standard: 50K \_\_\_ Useful Life with R/L  \_\_\_ Evap Family: VFM1120AYMED

R/L Test Proc.: Point Source

Exhaust Std: Tier 0 \_\_\_ Tier 1 \_\_\_ TLEV  LEV \_\_\_ ULEV \_\_\_ ZEV \_\_\_ ; EPA Tier 0 \_\_\_ Tier 1 \_\_\_

NMOG Test Proc.: Equivalent

Vehicle Class(es): PC \_\_\_ LDT1 \_\_\_ LDT2  MDV1 \_\_\_ MDV2 \_\_\_ MDV3 \_\_\_ MDV4 \_\_\_ MDV5 \_\_\_Service Accum: Mfr. ADP  
Single Cert Std for Multi-Class Eng Fam: N/A (specify N/A, LDT1, MDV1, MDV2, MDV3, MDV4)Exh Cert Fuel(s): Indo \_\_\_ Ph2  Diesel: 13 CCR 2282 \_\_\_ or 40 CFR 86.113-90 \_\_\_ or -94 \_\_\_  
M85 \_\_\_ CNG \_\_\_ LPG \_\_\_ Other (specify) \_\_\_\_\_Fuel Type(s): Dedicated \_\_\_ Flex-Fuel \_\_\_ Dual-Fuel \_\_\_ Gasoline  Diesel \_\_\_ M85 \_\_\_  
CNG \_\_\_ LNG \_\_\_ LPG \_\_\_ Other (specify) \_\_\_\_\_

Hybrid: Type A \_\_\_ B \_\_\_ C \_\_\_ APU Cycle (e.g., Otto, Diesel, Turbine) \_\_\_\_\_

Engine Config: V-6 Liter (CID): 4.0 (244)Engine: Front  Mid \_\_\_ Rear \_\_\_ Drive: FWD \_\_\_ RWD  4WD-FT \_\_\_ 4WD-PT Exhaust ECS & Special Features: SFI/HO2S/EGR/TWC(2)/2HO2S  
(Use abbreviations per SAE J1930, Sep 91)

Engine Code	Vehicle Models	Trans. Type A-Automatic M-Manual	ETW	DPA	Ignition (PCM) Part No.	EGR System Part No.	Catalyst Part No.
758RR05A/N	Explorer 4X2	A			F77F-FB	F37E-CA	F67A-PB
	<b>P225/70R15 Tires</b>						
	2 Door SWB		4250	11.9			
	4 Door LWB		4500	11.9			
	<b>All Other Tires</b>						
	2 Door SWB		4250	12.4			
	4 Door LWB		4500	12.4			
758RR05A/N	Explorer 4X4	A					
	<b>All Tires</b>						
	2 Door SWB		4500	13.3			
	4 Door LWB		4750	13.3			

SWB = Short Wheelbase  
LWB = Long Wheelbase

ENGINE FAMILY: VFM4.028G2FK

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ISSUED: **NOV 08 1996**  
REVISED: