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## State of California AIR RESOURCES BOARD

# EXECUTIVE ORDER A-10-849 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 medium-duty vehicles:

Emission Standard Category: Low-Emission Vehicle (LEV)

Fuel Type (Certification Fuel): Gasoline (Indolene)

Engine Family: XFMXA05.4JGC <u>Displacement</u>: 5.4 Liters (326 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 non-methane organic gas (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:

| Test Weight (lbs.) | <u>Miles</u> | NMOG  | _CO_ | <u>NOx</u> | <u>нсно</u> | CO (20°F) |
|--------------------|--------------|-------|------|------------|-------------|-----------|
| 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       |

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

| Test Weight<br>(lbs.) | Miles   | NMOG  | CO  | <u>N0x</u> | <u>нсно</u> | CO (20°F) |
|-----------------------|---------|-------|-----|------------|-------------|-----------|
| 5751-8500             | 50,000  | 0.092 | 1.7 | 0.1        | 0.002       | 5.4       |
|                       | 120,000 | 0.126 | 3.1 | 0.1        | 0.002       | n/a       |

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 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 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.).

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.

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 13th day of July 1998.

R. B. Summerfield, Chief

Mobile Source Operations Division

## 1999 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

XFMXE0155BBF/BBG

| Manufacturer [             | Ford Motor Compai               | <u>ny</u> Ex              | h. Eng. Fo         | am.: <u>XFMX</u>         | ( <u>A05.4JGC</u> E              | vap. Fam.: <u>X</u>      | FMXE0155BAF/BAG                          |
|----------------------------|---------------------------------|---------------------------|--------------------|--------------------------|----------------------------------|--------------------------|--|
| Engine Code Ty             | /pes: CA <u>XXX</u> 499         | 508                       | _ ORVI             | R: Yes                   | No <u>XXX</u>                    |                          |  |
| Exhaust Std: C/            | A Tier-1 TLEV                   | _ LEV_XXX                 | ULEV_              | ZEV_                     | U.S. E                           | PA TIER-1                |  |
| Vehicle Class(e            | s): PC LDT1                     | LDT2                      | MDV1               | _ MDV2                   | MDV3 <u>_XXX</u>                 | _ MDV4                   | MDV5                                     |
| Single Cert Std            | for Multi-Class Eng F           | am:                       | (specify: N/       | A,LDT1,MDV               |                                  |                          |  |
| Exhaust Emiss. T           | est Fuel: Indolene (            | Clear <u>XXX</u>          | CBG_               | Fuel Typ                 | Dedicated<br>e: Gasoline_>       | (XX                      |  |
| Evaporative En             | nission Test Procedu            | re: Califo                | mia                | Fed                      | deral <u>XXX</u>                 |                          |  |
| Service Accum              | ulation: Std AMA_               | Мо                        | AMA b              | _ Mfr Al                 | OP <u>XXX</u> Of                 | her                      |  |
| NMOG Test Pro              | cedure: N/A S                   | td_XXX                    | Equiv              | R/L                      | Test Procedure                   | : SHED                   | Pt.Source_XXX_                           |
| Engine Configu             | uration <u>V-8</u>              | Di                        | isplacem           | ent: <u>5.4</u>          | <u>.</u>                         |                          |  |
| Valves/Cyl: <u>02</u>      | 2                               |                           | Rate               | d HP: <u>26</u>          | 0 @ 4250                         | RPM                      |  |
| Engine: Front_             | <u> </u>                        | ar D                      | rive: Fwd          | RWI                      | <u> </u>                         | FT 4WD                   | P-PT_XXX_                                |
| Exhaust Contro             | ol System and Speci             | al Features               | SFI/E<br>(Use abbr | GR/2TWC<br>eviations per | (2),2HO2S(2)<br>SAE J1930 SEP91) |                          |  |
| EngineCode<br>(California) | Vehicle Models                  | Trans.<br>A-Auto<br>M-Man | ETW                | DPA                      | Ignition<br>Part No<br>(PCM)     | EGR<br>System<br>Part No | Converter                                |
| 9VZA BEB A/N               |                                 | AH                        |                    |                          | XL1F-FB                          | F75E-CA                  | (LH) XL34-5E214-GB<br>(RH) XL34-5G218-GC |
| ø                          | Expedition 4x2<br>Navigator 4x2 | II                        | 6000<br>6000       | *                        | u                                | 11                       | (LH) XL34-5E212-HB<br>(RH) XL34-5G218-HC |
|                            | Expedition 4x4<br>Navigator 4x4 |                           | 6500<br>6500       | *                        |                                  |                          | , .                                      |

Engine Family: XFMXA05.4JGC

Issued:

JUN 2 3 1998 Revised:

XFMXE0155BBF/BBG

## 1999 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

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(LH) XL34-5E214-HB (RH) XL34-5G218-HC

(LH) XL34-5E214-GB (RH) XL34-5G218-GC

### (continued)

Manufacturer <u>FORD MOTOR COMPANY</u> Exh. Eng. Fam.: XFMXA05.4JGC Evap. Fam.: XFMXE0155BAF/BAG EngineCode Vehicle Models Trans. Ignition **EGR** Catalytic A-Auto Part No System Converter (California) M-Man **ETW** DPA (PCM) Part No Part No AH 9VZA BFB A/N XC3F-AMB F75E-CA (LH) XL34-5E214-HB (RH) XL34-5G218-HC F150 4X4 SKS 6000 F150 4X4 SKL 6000 F250 4X4 RKL (7200 GVW) 6000 F250 4X4 RKL (7700 GVW) 6500 6000 (non-A/C) F250 4X4 SKS (7200 GVW) F250 4X4 SKS (7700 GVW) 6500 F250 4X4 SKS (7200 GVW) 6500 ( with A/C) (LH) XL34-5E214-GB (RH) XL34-5G218-GC F250 4X2 RKL 6000

6500 ( with A/C)

XU2F-DA

F75E-CA

6000

6000 6000

6500

6000

ALT

F250 4X2 RKL 6000

9VZA BVB A/N

F250 4X2 SKS

F150 4X4 SKS

F150 4X4 SKL

F250 4X2 SKS

F250 4X4 SKS (7700 GVW)

F250 4X4 SKS (7200 GVW)

F250 4X4 RKL (7200 GVW) 6000 F250 4X4 RKL (7700 GVW) 6500 F250 4X4 SKS (7200 GVW) 6000 (non-A/C)

<sup>\*</sup> See Section 20.09.17.03

| Body       |        |          |      | Non -A/C | A/C  |
|------------|--------|----------|------|----------|------|
|            | Trans  | Tire     | ETW  | DPA      | DPA  |
| Expedition | 4R100  | P255 AS  | 6000 | 16.3     | 17.7 |
| 4x4        |        | 2        | 6500 | 16.3     | 17.7 |
|            |        | P255 AT  | 6000 | 15.0     | 16.4 |
|            |        | \$       | 6500 | 15.0     | 16.4 |
|            |        | P265 AT  | 6000 | 15.7     | 17.1 |
|            |        | S        | 6500 | 15.7     | 17.1 |
| 1          |        | LT245 AT | 6000 | 15.6     | 17.0 |
|            |        | \$       | 6500 | 15.6     | 17.0 |
| Navigator  | 4R100  | P 245 AS | 6000 | 15.0     | 16.4 |
| 4x4        |        | \$       | 6500 | 15.0     | 16.4 |
|            |        | P255 AT  | 6000 | 14.7     | 16.1 |
|            |        | S        | 6500 | 14.7     | 16.1 |
| Expedition | 4R 100 | All P255 | 5500 | 11.6     | 12.8 |
| 4x2        |        | \$       | 6000 | 11.6     | 12.8 |
|            |        | LT245 AT | 5500 | 11.1     | 12.2 |
|            |        | \$       | 6000 | 11.1     | 12.2 |
| Navigator  | 4R100  | P245 AS  | 5500 | 13.1     | 14.4 |
| 4x2        |        | \$       | 6000 | 13.1     | 14.4 |
|            |        | S        | 6500 | 13.1     | 14.4 |
| F250 4X2   | 4R100  | P255 AS  | 4750 | 14.6     | 16.0 |
| RCL        |        |          | 5000 | 14.6     | 16.0 |
| l.         |        |          | 5250 | 14.6     | 16.0 |
|            |        | \$       | 6000 | 14.6     | 16.0 |
| Į.         |        | 2        | 6500 | 14.6     | 16.0 |
| F250 4X2   | 4R100  | P255 AS  | 5000 | 14.1     | 15.5 |
| SCS        |        |          | 5250 | 14.1     | 15.5 |
|            |        | \$       | 6000 | 14.1     | 15.5 |
|            |        | S        | 6500 | 14.1     | 15.5 |
|            |        | LT245 AS | 5000 | 12.6     | 13.9 |
|            |        |          | 5250 | 12.6     | 13.9 |
|            |        | \$       | 6000 | 12.6     | 13.9 |
|            |        | S        | 6500 | 12.6     | 13.9 |
| F250 4X4   | 4R100  | LT245    | 5250 | 14.8     | 16.2 |
| 1          |        |          | 5500 | 14.8     | 16.2 |
|            |        | S        | 6000 | 14.8     | 16.2 |
|            |        | S        | 6500 | 14.8     | 16.2 |

|          |       |              |      | Non -A/C | A/C  |
|----------|-------|--------------|------|----------|------|
| Body     | Trans | Tire         | ETW  | DPA      | DPA  |
| F150 4X4 | 4R100 | P 235        | 4750 | 17.2     | 18.6 |
| RCL/SCL  |       |              | 5000 | 17.2     | 18.6 |
| RCS/RCSF |       |              | 5250 | 17.2     | 18.6 |
|          |       |              | 5500 | 17.2     | 18.6 |
| 1        |       | S            | 6000 | 17.2     | 18.6 |
|          |       | Other P-metr | 4750 | 18.7     | 20.1 |
|          |       |              | 5000 | 18.7     | 20.1 |
|          |       |              | 5250 | 18.7     | 20.1 |
|          |       |              | 5500 | 18,7     | 20.1 |
|          |       | S            | 6000 | 18.7     | 20.1 |
| i        |       | LT 245       | 4750 | 16.0     | 17.4 |
|          |       |              | 5000 | 16.0     | 17.4 |
|          |       |              | 5250 | 16.0     | 17.4 |
| 1        |       |              | 5500 | 16.0     | 17.4 |
| 1        |       | \$           | 6000 | 16.0     | 17.4 |
| 1        |       | LT 265       | 4750 | 15.6     | 17.0 |
| ļ.       |       |              | 5000 | 15.6     | 17.0 |
|          |       |              | 5250 | 15.6     | 17.0 |
|          |       |              | 5500 | 15.6     | 17.0 |
|          |       | S            | 6000 | 15.6     | 17.0 |
| F150 4X4 | 4R100 | P235         | 4750 | 16.6     | 18.0 |
| SCS/SCSF |       |              | 5000 | 16.6     | 18.0 |
|          |       |              | 5250 | 16.6     | 18.0 |
|          |       |              | 5500 | 16.6     | 18.0 |
|          |       | S            | 6000 | 16.6     | 18.0 |
|          |       | Other P-metr | 4750 | 15.3     | 16.7 |
|          |       |              | 5000 | 15.3     | 16.7 |
| 1        |       |              | 5250 | 15.3     | 16.7 |
| j        |       |              | 5500 | 15.3     | 16.7 |
| 1        |       | \$           | 6000 | 15.3     | 16.7 |
| l        |       | LT 245       | 4750 | 15.4     | 16.8 |
| 1        |       |              | 5000 | 15.4     | 16.8 |
| 1        |       |              | 5250 | 15.4     | 16.8 |
|          |       |              | 5500 | 15.4     | 16.8 |
|          |       | S            | 6000 | 15.4     | 16.8 |
|          |       | LT 265       | 4750 | 15.0     | 16.4 |
|          |       |              | 5000 | 15.0     | 16.4 |
| I        |       |              | 5250 | 15.0     | 16.4 |
|          |       |              | 5500 | 15.0     | 16.4 |
| <u>L</u> |       | s            | 6000 | 15.0     | 16.4 |

ENGINE FAMILY: XFMXA05.4JGC ISSUED: REVISED: JUN 2 3 1998.

<sup>\* -</sup> ETW/ALVW

<sup>\$-</sup>ALVW