State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-733

Relating to Certification of New Medium-Duty Motor Vehicle Engines

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-3;

IT IS ORDERED AND RESOLVED: That the following 1996 model-year General Motor Corporation Otto-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) of 8,501 to 14,000 pounds:

Fuel Type: Gasoline

| Engine Family | Engine Liters | Displacement (Cubic Inches) | Exhaust Emission Control Systems and Special Features |
|---------------|------------------|--------------------------------|--|
| TGM5.7CPGAEA | 5.7 | (350) | Dual Heated Oxygen Sensor (2) Exhaust Gas Recirculation Dual Three Way Catalytic Converter Sequential Multiport Fuel Injection |
| TGM7.4C8GAEA | 7.4 | (454) | Dual Heated Oxygen Sensor (2) Exhaust Gas Recirculation Dual Three Way Catalytic Converter Sequential Multiport Fuel Injection |

Engine models and codes are listed on attachments.

The certification exhaust emission standards for these engine families in grams per brake horsepower-hour are:

| Non-Methane Hydrocarbons | Carbon |
|--------------------------|-----------------|
| + Nitrogen Oxides | <u>Monoxide</u> |
| 3 0 | 14.4 |

The certification exhaust emission values for these engine families in grams per brake horsepower-hour are:

| Engine Family | Non-Methane Hydrocarbons + Nitrogen Oxides | Carbon <u>Monoxide</u> |
|------------------------------|---|---------------------------|
| TGM5.7CPGAEA TGM7.4C8GAEA | 2.1 2.7 | 4.3 9.3 |

BE IT FURTHER RESOLVED: That the listed engine models are certified to the optional standards and test procedures applicable to incomplete and diesel medium-duty vehicles of 8,501 to 14,000 pounds GVWR pursuant to Title 13, California Code of Regulations, Section 1956.8(g).

BE IT FURTHER RESOLVED: That the listed engine models shall be subject to the in-use compliance provisions applicable to 1995 and subsequent model-year medium-duty vehicle engines set forth in Title 13, California Code of Regulations, Section 2139(c).

BE IT FURTHER RESOLVED: That the listed engine 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 FURTHUR RESOLVED: That the listed engine 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" pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(2.0) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted 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.).

Engines 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 attachments.

Executed at El Monte, California this 31 day of August 1995.

B. Summerfield

Assistant Division Chief

Mobile Source Division

1996 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET INCOMPLETE MEDIUM-DUTY VEHICLE ENGINES (CERTIFIED USING HEAVY-DUTY OTTO-CYCLE ENGINE TEST PROCEDURES)

| MANUFACTURER: | GENERAL MOTOR | S CORPORATION | ENGINE FAMI | ENGINE FAMILY: TGM5.7CPGAEA | | | | |
|---|-------------------|---|---|-----------------------------|---------------------------------------|--|--|--|
| ENGINE CONFIG: | . V8 v | ALVES/CYL: 2 | DISPL: 5.7 | LITERS 350 (| CID | | | |
| CERT STD: TIE | R-1 <u>X</u> LEV | ULEV | | | | | | |
| | | ALT IN-USEX | | | | | | |
| | | CA_X_ 49S_X | | • | , | | | |
| FUEL TYPE(S): DEDICATED_X FLEX-FUEL DUAL-FUEL BI-FUEL GASOLINE_X CNG | | | | | | | | |
| | | M85M100 | | | · · · · · · · · · · · · · · · · · · · | | | |
| EMIS TEST FUEL(S): INDO_X CNG LPG M85 M100 OTHER (SPECIFY) | | | | | | | | |
| EXHAUST ECS (E.G., OC, TWC, MFI, IFI, TC, CAC): 2TWC, SFI, EGR, 2 HO2S(2) | | | | | | | | |
| (USE ABBREVIATIONS PER SAE J1930 SEP91) | | | | | | | | |
| ENGINE MODEL (ENG CODE) | RATED HP @ RPM | IGNITION SYSTEM OR ECM/PCM P/N | | EGR VALVE P/N | CATALYTIC CONVERTER P/N | | | |
| L31 (5) | 245 @ 4400 | 16213165+ 16187735 16187756 16187885 | PART OF INTAKE MANIFOLD ASM 17096072 | 17096188 | 25160620: 2 USED | | | |

SSUED: 002

REV. NO.: