

State of California  
AIR RESOURCES BOARD

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EXECUTIVE ORDER A-6-773

Relating to Certification of New Heavy-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-45-9;

IT IS ORDERED AND RESOLVED: That the following 1997 model-year General Motors Corporation Otto-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Gasoline

<u>Engine Family</u>	<u>Engine Displacement</u> <u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control</u> <u>Systems and Special Features</u>
VGM5.7CPGAEA	5.7	(350)	Dual Three-Way Catalytic Converters Sequential Multiport Fuel Injection Exhaust Gas Recirculation Dual Heated Oxygen Sensors (2)
VGM7.4C8GAEA	7.4	(454)	Dual Three-Way Catalytic Converters Sequential Multiport Fuel Injection Exhaust Gas Recirculation Dual Heated Oxygen Sensors (2)

Engine models and codes are listed on attachments.

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

<u>Total</u> <u>Hydrocarbons</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>
1.9	37.1	5.0

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

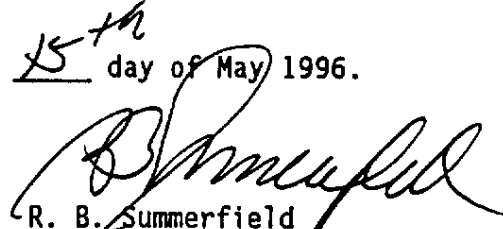
<u>Engine Family</u>	<u>Total</u> <u>Hydrocarbons</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>
VGM5.7CPGAEA	0.2	4.2	1.9
VGM7.4C8GAEA	0.4	9.3	2.3

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 15<sup>th</sup> day of May 1996.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

**1997 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY OTTO-STANDARD ENGINES**

MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: VGM7.4C8GAEA  
 DISPLACEMENT: 7.4L 454 CUBIC INCHES  
 ALL ENG CODES IN ENG FAMILY: CA X 49S X 50S X VALVES/CYLINDER: 2  
 FUEL TYPE(S): DEDICATED X FLEX-FUEL\_\_ DUAL-FUEL\_\_ BI-FUEL\_\_ GASOLINE X CNG\_\_  
 LNG\_\_ LPG\_\_ M85\_\_ M100\_\_ OTHER (SPECIFY)\_\_\_\_\_  
 MAXIMUM RATED POWER: 290 HP @ 4200 RPM ENGINE CONFIGURATION: V8  
 EXHAUST ECS (E.G., OC, TWC, MFI, IFI, TC, CAC): 2TWC, SFI, EGR, 2HO2S(2)  
 (USE ABBREVIATIONS PER SAE J1930 SEP91)

<u>ENGINE MODEL (ENG CODE)</u>	<u>RATED HP @ RPM</u>	<u>IGNITION SYSTEM OR ECM/PCM P/N</u>	<u>FUEL SYSTEM INJECTOR AND PUMP P/N</u>	<u>EGR VALVE P/N</u>	<u>CATALYTIC CONVERTER P/N</u>
9 (30)	290 @ 4200	16213215+ 16204198 16204156 +Software 16204025PA	17096076	17096200	25160620: 2 USED
L29 (40)		16213215+ 16204211 +Software 16204025PA			