

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-753-A
Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

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 General Motors Corporation 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: VGM3.8V8G2EK Displacement: 3.8 Liters (231 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Exhaust Gas Recirculation
Heated Oxygen Sensors (two)
Three Way Catalytic Converter
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>	<u>Non-Methane Organic Gas</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon 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 gas (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>Miles</u>	<u>Non-Methane Organic Gas</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20⁰F)</u>
50,000	0.056	0.6	0.1	0.001	5.0
100,000	0.066	0.8	0.1	0.002	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 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 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.


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 11th day of April 1996.


R. B. Summerfield
Assistant Division Chief
Mobile Source Division

**AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
GASOLINE-FUELED PASSENGER CARS**

VEHICLE MODELS: 1 J C 3 Z (EXAMPLE)

Digit 1 - Selling Division

- 1 - Chevrolet
- 2 - Pontiac
- 3 - Oldsmobile
- 4 - Buick
- 6 - Cadillac
- 8 - Saturn

Digit 2 - Body Designation

- C - Ninety-Eight, Park Avenue
- E - Eldorado
- F - Camaro, Firebird/Formula
- G - Riviera, Aurora
- H - Bonneville, Eighty-Eight, LeSabre
- J - Cavalier, Sunfire
- K - Seville
- Ksp - Deville/Concours
- N - Grand Am, Achieva, Skylark, Malibu, Cutlass Supreme
- V - Catera
- W - Grand Prix, Regal, Century, Lumina, Monte Carlo
- Y - Corvette
- Z - Saturn SC, SL, SW

Digit 3 - Trim Level

B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z

Digits 4 & 5 - Body Style

- | | |
|----------------------------|----------------------------|
| 07 - 2Dr Sport Coupe | 37 - 2Dr Hardtop Coupe |
| 08 - 2Dr Hatchback Coupe | 47 - 2Dr Hardtop Coupe |
| 11 - 2Dr Notchback | 57 - 2Dr Hardtop Coupe |
| 15 - 2Dr Station Wagon | 67 - 2Dr Convertible Coupe |
| 19 - 4Dr Sedan | 68 - 4Dr Hatchback Sedan |
| 23 - 4Dr Aux. Seat Sedan | 69 - 4Dr (Notchback) Sedan |
| 27 - 2Dr (Notchback) Coupe | 77 - 2Dr Hatchback Coupe |
| 29 - 4Dr Sedan | 87 - 2Dr Hatchback Coupe |
| 35 - 4Dr Station Wagon | 90 - Commercial Chassis |

ISSUED: ML-VP009

REVISED:

17-VGM3.8V8G2EK-1
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM3.8V8G2EK EVAP FAMILY: VGM1095AYMEA
 ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 ()
 EXH STD: CA TIER-1 () TLEV (X) LEV () ULEV () ZEV (); U.S. EPA TIER-1 ()
 EVAP STD: 50K () USEFUL LIFE WITH R/L (X); IN-USE EXH STD: FULL (X) ALTERNATIVE ()
 VEH CLASS(ES): PC (X) LDT1 () LDT2 () MDV1 () MDV2 () MDV3 () MDV4 () MDV5 ()
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED () GASOLINE (X); EMISSION TEST FUEL(S): INDOLINE () PHASE 2 (X)
 SERVICE ACCUMULATION: STD AMA (X) MFR ADP (); NMOG TEST PROCEDURE: NA () EQUIV (X)
 R/L TEST PROCEDURE: NA () PT SOURCE (X); HYBRID TYPE: NA APU CYCLE: NA
 ENGINE CONFIGURATION: I4 () V6 (X) V8 () DISPLACEMENT: 3.8 LITERS / 231 CU. IN.
 VALVES / CYLINDER: 2 (X) 4 () RATED HP: 195 @ 5200 RPM
 ENGINE LOCATION: FRONT (X) DRIVE: FWD (X) RWD () 4WD-FT () 4WD-PT ()
 EXHAUST EMISSION CONTROL SYSTEM: EGR, TWC, HO2S(2), SFI
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (QC)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	IGNITION (PCM/CALIB PART NO.)	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
(C) 15	4WB69	A4/15	3750	16218060, 16218070/ 16234234	17096199	24505995
15A				16218060, 16218070/ 16253004		
25				16218060, 16218070/ 16234234		25173893
25A				16218060, 16218070/ 16253004		

CARLINE NAME
 BUICK REGAL/CENTURY

CARLINE CODE
 08022

ISSUED: ML-VR031

REVISED: ML-VR077

17-VGM3.8V8G2EK-2.1
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM3.8V8G2EK EVAP FAMILY: VGM1086AYMEA

ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 ()

EXH STD: CA TIER-1 () TLEV (X) LEV () ULEV () ZEV (); U.S. EPA TIER-1 ()

EVAP STD: 50K () USEFUL LIFE WITH R/L (X); IN-USE EXH STD: FULL (X) ALTERNATIVE ()

VEH CLASS(ES): PC (X) LDT1 () LDT2 () MDV1 () MDV2 () MDV3 () MDV4 () MDV5 ()

SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA

FUEL TYPE(S): DEDICATED () GASOLINE (X); EMISSION TEST FUEL(S): INDOLENE () PHASE 2 (X)

SERVICE ACCUMULATION: STD AMA (X) MFR ADP (); NMOG TEST PROCEDURE: NA () EQUIV (X)

R/L TEST PROCEDURE: NA () PT SOURCE (X); HYBRID TYPE: NA APU CYCLE: NA

ENGINE CONFIGURATION: I4 () V6 (X) V8 () DISPLACEMENT: 3.8 LITERS / 231 CU. IN.

VALVES / CYLINDER: 2 (X) 4 () RATED HP: 205 @ 5200 RPM

ENGINE LOCATION: FRONT (X) DRIVE: FWD (X) RWD () 4WD-FT () 4WD-PT ()

EXHAUST EMISSION CONTROL SYSTEM: EGR, TWC, HO2S(2), SFI

RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (LOC) (C)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	IGNITION (PCM/CALIB PART NO.)	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
13	2HX69 3HC69 3HN69 4HP69 4HR69	A4/11	3875 3750	16218060, 16218070/ 16231404	17095163, 17096199	25164609, 25168034
13A				16218060, 16218070/ 16243674, 16243914 *1		
13B				16218060, 16218070/ 16253034, 16253064 *1 16253034, 16253064 *1		
13C				16218060, 16218070/ 16257574, 16257604 *1		
13D				16218060, 16218070/ 16259324, 16259354 *1		

CARLINE NAME	CARLINE CODE
PONTIAC BONNEVILLE	33045
OLDSMOBILE EIGHTY-EIGHT/REGENCY	29025
BUICK LESABRE	08030

* Depends upon tire usage.

ISSUED: ML-VP009

REVISED: ML-VR011, ML-VR013, ML-VR066, ML-VR115, ML-VR131

17-VGM3.8V8G2EK-4

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM3.8V8G2EK EVAP FAMILY: VGM1086AYMEA

<u>ENGINE CODE (LOC)</u> (C)	<u>VEH MODELS (SEE PAGE 1)</u>	<u>TRANS (M5,A4,ETC.)</u>	<u>EQUIV. TEST WEIGHT</u>	<u>IGNITION (PCM/CALIB PART NO.)</u>	<u>EGR SYSTEM PART NO.</u>	<u>CATALYTIC CONVERTER PART NO.</u>
23	2HX69 3HC69 3HN69 4HP69 4HR69	A4/11	3875 3750	16218060, 16218070/ 16231404	17095163, 17096199	25174347
23A				16218060, 16218070/ 16243674, 16243914 *1		
23B				16218060, 16218070/ 16253034, 16253064 *1		
23C				16218060, 16218070/ 16257574, 16257604 *1		
23D				16218060, 16218070/ 16259324, 16259354 *1		
14	2HZ69 3HY69 2HX69 3HN69 4HP69 4HR69	A4/12	3875 3750	16218060, 16218070/ 16231414		25164609, 25168034
14A				16218060, 16218070/ 16243824		
14B				16218060, 16218070/ 16253094		
14C				16218060, 16218070/ 16257634		
14D				16218060, 16218070/ 16259384		
24				16218060, 16218070/ 16231414		25174347
24A				16218060, 16218070/ 16243824		
24B				16218060, 16218070/ 16253094		
24C				16218060, 16218070/ 16257634		
24D				16218060, 16218070/ 16259384		

<u>CARLINE NAME</u>	<u>CARLINE CODE</u>
PONTIAC BONNEVILLE	33045
OLDSMOBILE EIGHTY-EIGHT/REGENCY	29025
BUICK LESABRE	08030

* Depends upon tire usage.

ISSUED: ML-VR013

REVISED: ML-VR066, ML-VR115, ML-VR131

17-VGM3.8V8G2EK-4.1