

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-761
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 light-duty trucks:

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

Fuel Type: Gasoline

Engine Family: VGM4.32PG2EK Displacement: 4.3 Liters (262 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Three Way Catalytic Converter
- Dual Heated Oxygen Sensors
- 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) 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	0.118	2.1	0.2	0.003	3.8
	100,000	0.152	2.4	0.3	0.003	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 50,000-mile evaporative emission standards applicable to 1980 through 1994 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, based on the evaporative emission phase-in compliance schedule submitted by the vehicle manufacturer, the listed vehicle models shall not be subject to the running loss and useful life standards set forth in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles."

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 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 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.).

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 20th day of May 1996.



R. B. Summerfield
Assistant Division Chief
Mobile Source Division

LIGHT DUTY TRUCK MODEL NUMBER DEFINITION

(Includes California Medium Duty Trucks)

E.O. #A-6-761

Example, Pattern A: CC10703+E62

Example, Pattern B: 1UM05

Digit 1 = Marketing Division

Pattern A

C = Chevrolet
T = GMC
H = Oldsmobile
G = Isuzu

Pattern B

1 = Chevrolet
2 = Pontiac
3 = Oldsmobile

Note: Digit 1 is only used for Pattern A models on engine family pages or California Supplemental Data Sheets when necessary to discriminate by division model.

Digit 2 = Chassis Type (all)

U = Conventional 4x2 Front Wheel Drive
C, S, M = Conventional 4x2 Rear Wheel Drive
G = Forward Control 4x2 Rear Wheel Drive
K, T, L = Conventional 4x4 Four Wheel Drive, All Wheel Drive

Digit 3 = Series/GVWR

Pattern A

1 = 11,15,1500/3500-7300
2 = 21,25,2500/6400-8600
3 = 31,35,3500/7100-14500

Pattern B

Letter code designates trim level rather than series/GVWR.

Digits 4 & 5

Pattern A = Dimensional Grouping

05 = Utility: Tahoe (2Dr), Yukon (2Dr),
Blazer, Jimmy, Bravada
06 = S/T Short Box
07 = C/K Short Box, Tahoe (4Dr), Yukon (4Dr)
08 = S/T Long Box & Cab-Chassis
09 = C/K Long Box, Suburban
10 = M/L Long Body
14 = G Short Wheelbase
17 = G Long Wheelbase

Pattern B = Body Style

06 = Passenger (Venture, Trans Sport, Silhouette)
16 = Passenger (Venture, Trans Sport, Silhouette)
Dual Sliding Doors

Digits 6 & 7 = Body/Cab Codes (Pattern A Only)

03 = Conventional Cab, Cab-Chassis
05 = Cargo Van
06 = Passenger Van, 4 Door Special Purpose Vehicle
16 = 2 Door Special Purpose Vehicle
43 = Crew Cab
53 = Extended Cab

Pickup Body Codes (Optional, Used with Pattern A Only)

+E62 = Stepside, Fenderside
+E63 = Fleetside, Wideside

ISSUED: ML-VP094

REVISED:

17-VGM4.32PG2EK-1
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM4.32PG2EK EVAP FAMILY: VGM1111AYMBA

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

VEH CLASS(ES): PC () LDT1 () LDT2 (X) 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 () MFR ADP (X); NMOG TEST PROCEDURE: NA () EQUIV (X)

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

ENGINE CONFIGURATION: I4 () V6 (X) V8 () DISPLACEMENT: 4.3 LITERS / 262 CU. IN.

VALVES / CYLINDER: 2 (X) 4 () RATED HP: 190 @ 4400 RPM

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

EXHAUST EMISSION CONTROL SYSTEM: LEGR, TWC, 2HO2S-HO2S(S), SFI

RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (LOC)	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) 2	M11005 M11006	A4	4250 4750	16213175-PCM 16204025PB-OPER 16237509-ENG 16204041, 16204042, 16215610-TRANS	17096188, 17096309	25161908
2A				16213175-PCM 16243345PF-OPER 16243459-ENG 16243550, 16243551, 16243552-TRANS		
2B				16243345PF-OPER 16243493-ENG		
2C				16243345PF-OPER 16243517-ENG		
2D				16256455PG-OPER 16256252-ENG		

CARLINE NAME	CARLINE CODE
CHEVROLET ASTRO CARGO VAN 2WD	55045
CHEVROLET ASTRO PASSENGER VAN 2WD	55060
GMC SAFARI CARGO VAN 2WD	80035
GMC SAFARI PASSENGER VAN 2WD	80050

SUED: ML-VP094

REVISED: ML-VR038, ML-VR047, ML-VR065, ML-VP178, ML-VP188, ML-VR103

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM4.32PG2EK EVAP FAMILY: VGM1111AYMBA

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

VEH CLASS(ES): PC () LDT1 () LDT2 (X) 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 () MFR ADP (X); NMOG TEST PROCEDURE: NA () EQUIV (X)

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

ENGINE CONFIGURATION: I4 () V6 (X) V8 () DISPLACEMENT: 4.3 LITERS / 262 CU. IN.

VALVES / CYLINDER: 2 (X) 4 () RATED HP: 190 @ 4400 RPM

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

EXHAUST EMISSION CONTROL SYSTEM: LEGR, TWC, 2HO2S-HO2S(S), SFI

RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (LOC)	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) 4	L11005	A4	4500	16213175-PCM 16204025PB-OPER 16237503-ENG 16215610, 16204042-TRANS	17096188, 17096309	25161908
4A				16213175-PCM 16243345PF-OPER 16243462-ENG 16243551, 16243552-TRANS		
4B				16243345PF-OPER 16243496-ENG		
4C				16243345PF-OPER 16243520-ENG		
4D				16256455PG-OPER 16256256-ENG		

CARLINE NAME
 GMC SAFARI CARGO VAN AWD
 CHEVROLET ASTRO ARGO VAN AWD

CARLINE CODE
 80037
 55047

ISSUED: ML-VP094

REVISED: ML-VR038, ML-VR047, ML-VR065, ML-VP178, ML-VP188, ML-VR103

17-VGM4.32PG2EK-3
(1997)