

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-765
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 medium-duty vehicles:

Fuel Type: Gasoline

Engine Family: VGM5.0HPG1EK Displacement: 5.0 Liters (305 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Exhaust Gas Recirculation
- Three Way Catalytic Converter
- Dual Heated Oxygen Sensors
- Heated Oxygen Sensors (Two)
- Sequential Multiport Fuel Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The certification exhaust emission standards (in-use compliance standards in parentheses) for this engine family in grams per mile are:

<u>Test Weight</u> <u>(lbs.)</u>	<u>Miles</u>	<u>Non-Methane</u> <u>Hydrocarbons</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>	<u>Carbon</u> <u>Monoxide (20°F)</u>
3751-5750	50,000	0.32 (0.40)	4.4 (5.5)	0.7 (0.9)	12.5 (12.5)
	120,000	0.46 (n/a)	6.4 (n/a)	0.98 (n/a)	n/a

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

<u>Test Weight</u> <u>(lbs.)</u>	<u>Miles</u>	<u>Non-Methane</u> <u>Hydrocarbons</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>	<u>Carbon</u> <u>Monoxide (20°F)</u>
5751-8500	50,000	0.24	1.9	0.3	4.3
3751-5750	120,000	0.34	2.3	0.39	n/a

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, based on a separate compliance plan submitted by the vehicle manufacturer, the listed vehicle models are permitted alternative in-use compliance 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 the submitted alternative in-use compliance plan satisfies the requirement that a maximum of 50 percent of the manufacturer's projected sales of 1997 model-year California-certified medium-duty vehicles will be subject to alternative in-use compliance as stipulated in the above-referenced standards and test procedures.

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.).

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-6-765

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-VP081

REVISED:

17-VGM5.0HPG1EK-1
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORP. ENGINE FAMILY: VGM5.0HPG1EK EVAP FAMILY: VGM1098AYMBA
 ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 ()
 EXH STD: CA TIER-1 (X) TLEV () LEV () ULEV () ZEV (); U.S. EPA TIER-1 ()
 EVAP STD: 50K (X) USEFUL LIFE WITH R/L (); IN-USE EXH STD: FULL () ALTERNATIVE (X)
 VEH CLASS(ES): PC () LDT1 () LDT2 () MDV1 () MDV2 (X) MDV3 () MDV4 () MDV5 ()
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED (X) GASOLINE (X); EMISSION TEST FUEL(S): INDOLINE () PHASE 2 (X)
 SERVICE ACCUMULATION: STD AMA () MFR ADP (X); NMOG TEST PROCEDURE: NA (X) EQUIV ()
 R/L TEST PROCEDURE: NA (X) PT SOURCE (); HYBRID TYPE: NA APU CYCLE: NA
 ENGINE CONFIGURATION: I4 () V6 () V8 (X) DISPLACEMENT: 5.0 LITERS / 305 CU. IN.
 VALVES / CYLINDER: 2 (X) 4 () RATED HP: 230 @ 4600 RPM
 ENGINE LOCATION: FRONT (X) DRIVE: FWD () RWD (X) 4WD-FT () 4WD-PT (X)
 EXHAUST EMISSION CONTROL SYSTEM: ~~HEGR~~, TWC, 2HO2S-HO2S(2), SFI, ~~EBB+~~
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (DOC)	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.
51,52	C10703+E62	A4	5250	16213185/ 16204025ZR-OPER	17096309	25163811, 25163841: MS 9571
	C10703+E63			16204183-ENG		
	C10903+E63			16204057(3.08),		
	C10753+E62		5500	16204058(3.42),		
	C10753+E63		5250	16243567(3.73)-TRANS		
	C10953+E63					
	K10703+E62					
	K10703+E63					
	K10903+E63					
	K10753+E62		5500			
	K10753+E63					
	K10953+E63					

CARLINE NAME	CARLINE CODE
C1500 SPORTSIDE PICKUP	55015
C1500 FLEETSIDE PICKUP	55015
C1500 SPORTSIDE PICKUP - EXTENDED CAB	55015
C1500 FLEETSIDE PICKUP - EXTENDED CAB	55015
K1500 SPORTSIDE PICKUP	55030
K1500 FLEETSIDE PICKUP	55030
K1500 SPORTSIDE PICKUP - EXTENDED CAB	55030
K1500 FLEETSIDE PICKUP - EXTENDED CAB	55030

QUED: ML-VP081

REVISED:

17-VGM5.0HPG1EK-2
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

R: GENERAL MOTORS CORP. ENGINE FAMILY: VGM5.0HPG1EK EVAP FAMILY: VGM1098AYMBA
 ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 ()
 EXH STD: CA TIER-1 (X) TLEV () LEV () ULEV () ZEV (); U.S. EPA TIER-1 ()
 EVAP STD: 50K (X) USEFUL LIFE WITH R/L (); IN-USE EXH STD: FULL () ALTERNATIVE (X)
 VEH CLASS(ES): PC () LDT1 () LDT2 () MDV1 () MDV2 (X) MDV3 () MDV4 () MDV5 ()
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED (X) GASOLINE (X); EMISSION TEST FUEL(S): INDOLINE () PHASE 2 (X)
 SERVICE ACCUMULATION: STD AMA () MFR ADP (X); NMOG TEST PROCEDURE: NA (X) EQUIV ()
 R/L TEST PROCEDURE: NA (X) PT SOURCE (); HYBRID TYPE: NA APU CYCLE: NA
 ENGINE CONFIGURATION: I4 () V6 () V8 (X) DISPLACEMENT: 5.0 LITERS / 305 CU. IN.
 VALVES / CYLINDER: 2 (X) 4 () RATED HP: 230 @ 4600 RPM
 ENGINE LOCATION: FRONT (X) DRIVE: FWD () RWD (X) 4WD-FT () 4WD-PT (X)
 EXHAUST EMISSION CONTROL SYSTEM: ~~EGR~~, TWC, 2HO2S-HO2S(2), SFI, ~~GBH~~
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (DOC)	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.
51,52	C10703+E62	A4	5250	16213185/	17096309	25163811,
	C10703+E63			16204025ZR-OPER		25163841:
	C10903+E63			16204183-ENG		MS 9571
	C10753+E62			16204057(3.08),		
	C10753+E63		5500	16204058(3.42),		
	C10953+E63		5250	16243567(3.73)-TRANS		
	K10703+E62					
	K10703+E63					
	K10903+E63					
	K10753+E62		5500			
	K10753+E63					
	K10953+E63					

CARLINE NAME	CARLINE CODE
C1500 SPORTSIDE SIERRA	80010
C1500 WIDESIDE SIERRA	80010
C1500 SPORTSIDE SIERRA (CLUB COUPE)	80010
C1500 WIDESIDE SIERRA (CLUB COUPE)	80010
K1500 SPORTSIDE SIERRA	80020
K1500 WIDESIDE SIERRA	80020
K1500 SPORTSIDE SIERRA (CLUB COUPE)	80020
K1500 WIDESIDE SIERRA (CLUB COUPE)	80020

UED: ML-VP081

REVISED:

17-VGM5.0HPG1EK-2.1
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

R: GENERAL MOTORS CORP.

ENGINE FAMILY: VGM5.0HPG1EK

EVAP FAMILY: VGM1098AYMBA

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)						
51B.	C10703+E62	A4	5250	16213185, 16253985/ 16243345PF-OPER	17096309	25163811, 25163841:
52B	C10703+E63 C10903+E63 C10753+E62 C10753+E63 C10953+E63		5500 5250	16243419-ENG 16243556(3.08), 16243557(3.42), 16243567(3.73)-TRANS		MS 9571
51C.				16213185, 16253985/ 16256455PG-OPER		
52C				16256281-ENG 16243556(3.08), 16243557(3.42), 16243567(3.73)-TRANS		

<u>CARLINE NAME</u>	<u>CARLINE CODE</u>
C1500 SPORTSIDE PICKUP	55015
C1500 FLEETSIDE PICKUP	55015
C1500 SPORTSIDE PICKUP - EXTENDED CAB	55015
C1500 FLEETSIDE PICKUP - EXTENDED CAB	55015
C1500 SPORTSIDE SIERRA	80010
C1500 WIDESIDE SIERRA	80010
C1500 SPORTSIDE SIERRA (CLUB COUPE)	80010
C1500 WIDESIDE SIERRA (CLUB COUPE)	80010

ISSUED: ML-VR041

REVISED: ML-VR106, ML-VR102

17-VGM5.0HPG1EK-2.1
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM5.0HPG1EK EVAP FAMILY: VGM1098AYMBA
 ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 ()
 EXH STD: CA TIER-1 (X) TLEV () LEV () ULEV () ZEV (); U.S. EPA TIER-1 ()
 EVAP STD: 50K (X) USEFUL LIFE WITH R/L (); IN-USE EXH STD: FULL () ALTERNATIVE (X)
 VEH CLASS(ES): PC () LDT1 () LDT2 () MDV1 () MDV2 (X) MDV3 () MDV4 () MDV5 ()
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED () GASOLINE (); EMISSION TEST FUEL(S): INDOLINE () PHASE 2 (X)
 SERVICE ACCUMULATION: STD AMA () MFR ADP (X); NMOG TEST PROCEDURE: NA (X) EQUIV ()
 R/L TEST PROCEDURE: NA (X) PT SOURCE (); HYBRID TYPE: NA APU CYCLE: NA
 ENGINE CONFIGURATION: I4 () V6 () V8 (X) DISPLACEMENT: 5.0 LITERS / 305 CU. IN.
 VALVES / CYLINDER: 2 (X) 4 () RATED HP: 230 @ 4600 RPM
 ENGINE LOCATION: FRONT (X) DRIVE: FWD () RWD () 4WD-FT () 4WD-PT (X)
 EXHAUST EMISSION CONTROL SYSTEM: LEGR, TWC, 2HO2S-HO2S(2), SFI, OBD II
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (OC)	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.
51,52	K10703+E62 K10703+E63 K10903+E63 K10753+E62 K10753+E63 K10953+E63	A4	5250 5500	16213185/ 16204025ZR-OPER 16204183-ENG 16204057(3.08), 16204058(3.42), 16243567(3.73)-TRANS	17096309	25163811, 25163841: MS 9571
51A, 52A				16213185/ 16243345PC-OPER 16243419-ENG 16243556(3.08), 16243557(3.42), 16243567(3.73)-TRANS		

<u>CARLINE NAME</u>	<u>CARLINE CODE</u>
K1500 SPORTSIDE PICKUP	55030
K1500 FLEETSIDE PICKUP	55030
K1500 SPORTSIDE PICKUP - EXTENDED CAB	55030
K1500 FLEETSIDE PICKUP - EXTENDED CAB	55030
K1500 SPORTSIDE SIERRA	80020
K1500 WIDESIDE SIERRA	80020
K1500 SPORTSIDE SIERRA (CLUB COUPE)	80020
K1500 WIDESIDE SIERRA (CLUB COUPE)	80020

SUED: ML-VP081

REVISED: ML-VR023

17-VGM5.0HPG1EK-3
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

FR: GENERAL MOTORS CORP.

ENGINE FAMILY: VGM5.0HPG1EK

EVAP FAMILY: VGM1098AYMBA

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.
51B,	K10703+E62	A4	5250	16213185, 16253985/	17096309	25163811,
52B	K10703+E63			16243345PF-OPER		25163841:
	K10903+E63			16243419-ENG		MS 9571
	K10753+E62			16243556(3.08),		
	K10753+E63		5500	16243557(3.42),		
	K10953+E63			16243567(3.73)-TRANS		
51C,				16213185, 16253985/		
52C				16256455PG-OPER		
				16256281-ENG		
				16243556(3.08),		
				16243557(3.42),		
				16243567(3.73)-TRANS		

<u>CARLINE NAME</u>	<u>CARLINE CODE</u>
K1500 SPORTSIDE PICKUP	55030
K1500 FLEETSIDE PICKUP	55030
K1500 SPORTSIDE PICKUP - EXTENDED CAB	55030
K1500 FLEETSIDE PICKUP - EXTENDED CAB	55030
K1500 SPORTSIDE SIERRA	80020
K1500 WIDESIDE SIERRA	80020
K1500 SPORTSIDE SIERRA (CLUB COUPE)	80020
K1500 WIDESIDE SIERRA (CLUB COUPE)	80020

ISSUED: ML-VR041

REVISED: ML-VR106, ML-VR102

17-VGM5.0HPG1EK-3.1
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORP. ENGINE FAMILY: VGM5.0HPG1EK EVAP FAMILY: VGM1111AYMBA
 ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S () 50S () AB965 ()
 EXH STD: CA TIER-1 (X) TLEV () LEV () ULEV () ZEV (); U.S. EPA TIER-1 ()
 EVAP STD: 50K (X) USEFUL LIFE WITH R/L (); IN-USE EXH STD: FULL () ALTERNATIVE (X)
 VEH CLASS(ES): PC () LDT1 () LDT2 () MDV1 () MDV2 (X) MDV3 () MDV4 () MDV5 ()
 SINGLE CERT STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED () GASOLINE (); EMISSION TEST FUEL(S): INDOLINE () PHASE 2 (X)
 SERVICE ACCUMULATION: STD AMA () MFR ADP (X); NMOG TEST PROCEDURE: NA (X) EQUIV ()
 R/L TEST PROCEDURE: NA (X) PT SOURCE (); HYBRID TYPE: NA APU CYCLE: NA
 ENGINE CONFIGURATION: I4 () V6 () V8 (X) DISPLACEMENT: 5.0 LITERS / 305 CU. IN.
 VALVES / CYLINDER: 2 (X) 4 () RATED HP: 220 @ 4600 RPM
 ENGINE LOCATION: FRONT (X) DRIVE: FWD () RWD (X) 4WD-FT () 4WD-PT ()
 EXHAUST EMISSION CONTROL SYSTEM: LEGR, TWC, 2HO2S-HO2S(2), SFI, OBD II
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (OC)	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.
53,54	G11405	A4	5500	16213185/ 16204025ZR-OPER 16204127-ENG 16204058-TRANS	17096309	25163811: MS 9571
53A, 54A				16213185/ 16243345PC-OPER 16243423-ENG 16243557-TRANS		
53B, 54B				16213185, 16253985/ 16243345PF-OPER 16243423-ENG 16243557-TRANS		

CARLINE NAME	CARLINE CODE
G1500 CHEVROLET VAN - CARGO	55050
G1500 SAVANA - CARGO VAN	80040

ISSUED: ML-VP081 REVISED: ML-VR023, ML-VR041, ML-VR106

17-VGM5.0HPG1EK-4
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

TR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM5 0HPG1EK EVAP FAMILY: VGM1111AYMBA

<u>ENG CODE (LOC) (C)</u>	<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>
53C, 54C	G11405	A4	5500	16213185,16253985/ 16256455PG-OPER 16256288-ENG 16243557-TRANS	17096309	25163811; MS 9571

CARLINE NAME

CARLINE CODE

G1500 CHEVROLET VAN - CARGO
G100 SAVANA - CARGO VAN

55050
80040

ISSUED: ML-VR102

REVISED:

17-VGM5 0HPG1EK-4.1
(1997)