State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-763-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 medium-duty vehicles:

Fuel Type: Gasoline

Engine Family: VGM4.3HPG1EK Displacement: 4.3 Liters (262 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

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

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:

Test Weight	Miles	Non-Methane	Carbon	Nitrogen	Carbon
(lbs.)		<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	Monoxide (20°F)
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:

Test Weight	Miles	Non-Methane	Carbon	Nitrogen	Carbon
(lbs.)		<u>Hydrocarbons</u>	<u>Monoxide</u>	Oxides	<u>Monoxide (20°F)</u>
3751-5750	50,000	0.17	1.9	0.4	5.5
	120,000	0.25	2.9	0.58	n/a

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, 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 day of August 1996.

R. B. Summerfield

Assistant Division Chief Mobile Source Division

E.O. #A-6-763-A

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM4.3HPG1EK EVAP FAMILY: VGM1111AYMFA 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 () 50K() USEFUL LIFE WITH R/L(X); 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): INDOLENE () PHASE 2 (X) SERVICE ACCUMULATION: STD AMA() MFR ADP(X): NMOG TEST PROCEDURE: NA(X) EQUIV() R/L TEST PROCEDURE: NA() PT SOURCE(X); HYBRID TYPE: NA APU CYCLE: NA ENGINE CONFIGURATION: 14 () V6 (X) V8 () DISPLACEMENT: 4.3 LITERS / 252 CU. IN. VALVES / CYLINDER: 2(X) 4() RATED HP: 200 @ 4400 RPM DRIVE: FWD() RWD() 4WD-FT() 4WD-PT(X) ENGINE LOCATION: FRONT (X) EXHAUST EMISSION CONTROL SYSTEM: #EGR, TWC, 2HO2S-HO2S(2), 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) 3,4	K10753+E62 K10753+E63	A4	5250	16213175/ 16204025ZR-OPER 16204217-ENG 16204054(3.08), 16204065(3.42), 16204026(3.73)-TRANS	17096309	25152823, 25160245: MS 9571
3A,4A				16213175/ 16243345PC-OPER 16243412-ENG 16243540(3.08), 16243542(3.42)(3.73)-TRA	NS	
	CARLINE N	AME		CARLINE CODE		

CARLINE NAME	CARLINE CODE
K1500 SPORTSIDE PICKUP (EXTENDED CAB)	55030
K1500 FLEETSIDE PICKUP (EXTENDED CAB)	55030
K1500 SPORTSIDE SIERRA (CLUB COUPE)	80020
K1500 WIDESIDE SIERRA (CLUB COUPE)	80020

ISSUED: ML-VR040 REVISED:

17-VGM4.3HPG1EK-10 (1997)

17-43HPG

R: GENERAL MOTORS CORP. ENGINE FAMILY: VGM4.3HPG1EK EVAP FAMILY: VGM1111AYMFA

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) 3B,4B	K10703+E62 K10703+E63	A4	5000 5250	16213175/ 16243345PF-OPER 16243491-ENG 16243540(3.08), 16243542(3.42)(3.73)-TRA	17096309 .NS	25152823, 25160245: MS 9571
3C,4C				16243522-ENG		
3D,4D				16256455PG-OPER 16256261-ENG		
25,26	K10703+E62 K10703+E63	M5	5000 5250	16213175/ 16204025ZR-OPER 16204185-ENG 16204115-TRANS		
25A.26/	4			16243345PC-OPER 16243415-ENG 16243566-TRANS		
∠5B.26I	В			16243487-ENG 16243566-TRANS		

CARLINE NAME	CARLINE CODE
K1500 SPORTSIDE SIERRA	80020
	80020
K1500 WIDESIDE SIERRA	55030
K1500 SPORTSIDE PICKUP	55030
K1500 FLEETSIDE PICKUP	33030

ISSUED: ML-VR040

REVISED: ML-VR065, ML-VR100

17-VGM4.3HPG1EK-11 (1997)

E.O. #A-6-763-A

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM4.3HPG1EK EVAP FAMILY: VGM1111AYMGA 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() USEFUL LIFE WITH R/L(X); 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): INDOLENE () PHASE 2 (X) SERVICE ACCUMULATION: STD AMA() MFR ADP(X); NMOG TEST PROCEDURE: NA(X) EQUIV() R/L TEST PROCEDURE: NA() PT SOURCE(X); HYBRID TYPE: NA APU CYCLE: NA ENGINE CONFIGURATION: 14 () V6 (X) V8 () DISPLACEMENT: 4.3 LITERS / 252 CU. IN. VALVES / CYLINDER: 2(X) 4() RATED HP: 200 @ 4400 RPM ENGINE LOCATION: FRONT(X) DRIVE: FWD() RWD() 4WD-FT() 4WD-PT(X) 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) 5.6	K10903+E63	A4	5250	16213175/ 16204025ZR-OPER 16232491-ENG 16204054(3.08), 16204055(3.42)(3.73)-TRA	17096309 NS	25152823, 25160245: MS 9571
5A,6A				16213175/ 16243345PC-OPER 16243414-ENG 16243540(3.08), 16243542(3.42)(3.73)-TRA	NS	

CARLINE NAME	CARLINE CODE
K1500 FLEETSIDE PICKUP	55030
K1500 WIDESIDE SIERRA	80020

ISSUED: ML-VR040

REVISED:

17-VGM4.3HPG1EK-12 (1997)

R: GENERAL MOTORS CORP. ENGINE FAMILY: VGM4.3HPG1EK EVAP FAMILY: VGM1111AYMGA

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) 5B.6B	K10903+E63	A4	5250	16213175/ 16243345PF-OPER 16243485-ENG 16243540(3.08), 16243542(3.42)(3.73)-TRA	17096309 NS	25152823, 25160245: MS 9571
5C,6C				16243526-ENG		
5D,6D				16256455PG-OPER 16256267-ENG		
27.28	K10903+E63	M5		16213175/ 16204025ZR-OPER 16232497-ENG 16204115-TRANS		
27A.28A	\			16243416-ENG		
⁻ 3.28E	}			16243489-ENG		

CARLINE NAME	CARLINE CODE
K1500 WIDESIDE SIERRA	80020
K1500 FLEETSIDE PICKUP	55030

ISSUED: ML-VR040 REVISED: ML-VR065, ML-VR100

17-VGM4.3HPG1EK-13 (1997)

E.O. #A-6-763-A

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

ENGINE FAMILY: VGM4.3HPG1EK EVAP FAMILY: VGM1111AYMFA MFR: GENERAL MOTORS CORP. 50S() AB965() ALL ENGINE CODES IN ENGINE FAMILY: CA(X) 49S () EXH STD: CA TIER-1 (X) TLEV () LEV () ULEV () ZEV (); U.S. EPA TIER-1 () IN-USE EXH STD: FULL() ALTERNATIVE(X) EVAP STD: 50K() USEFUL LIFE WITH R/L(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): INDOLENE () PHASE 2 (X) SERVICE ACCUMULATION: STD AMA() MFR ADP(X); NMOG TEST PROCEDURE: NA(X) EQUIV() APU CYCLE: NA R/L TEST PROCEDURE: NA() PT SOURCE(X); HYBRID TYPE: NA ENGINE CONFIGURATION: 14 () V6 (X) V8 () DISPLACEMENT: 4.3 LITERS / 252 CU. IN. VALVES / CYLINDER: 2(X) 4() RATED HP: 200 @ 4400 RPM DRIVE: FWD() RWD(X) 4WD-FT() 4WD-PT() ENGINE LOCATION: FRONT (X) EXHAUST EMISSION CONTROL SYSTEM: #EGR, TWC, 2HO2S-HO2S(2), SFI RLHP / DPA VALUES: SECTION 08.13.02.00

CATALYTIC ENG FOUIV. EGR CODE VEH MODELS TRANS TEST IGNITION SYSTEM CONVERTER PART NO. PART NO. (LOC) (SEE PAGE 1) WEIGHT (PCM/CALIB PART NO.) (M5,A4,ETC.) (C) 3.4 C10753+E62 A4 5000 17096309 25152823, 16213175/ C10753+E63 16204025ZR-OPER 25160245: MS 9571 16204217-ENG 16204054(3.08), 16204055(3.42), 16204026(3.73)-TRANS 3A,4A 16213175/ 16243345PC-OPER 16243412-ENG 16243540(3.08), 16243542(3.42)(3.73)-TRANS

CARLINE NAME CARLINE CODE C1500 SPORTSIDE PICKUP 55015 C1500 FLEETSIDE PICKUP 55015 C1500 SPORTSIDE SIERRA 80010 C1500 WIDESIDE SIERRA 80010

ISSUED: ML-VR040

REVISED:

17-VGM4,3HPG1EK-14 (1997)

17-43HPG

R: GE	ENERAL MOTORS	CORP. E	NGINE FAMILY:	VGM4.3HPG1EK	EVAP FAMILY: V	GM1111AYMFA
ENG CODE (LOC) (C)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC	EQUIV. TEST) <u>WEIGHT</u>	IGNITION (PCM/CALIB PART	EGR SYSTEM NO.) PART NO.	CATALYTIC CONVERTER PART NO.
3B,4B	C10703+E62 C10703+E63	A4	5000 5250	16213175/ 16243345PF-OPER 16243491-ENG 16243540(3.08), 16243542(3.42)(3.7		25152823, 25160245: MS 9571
3C,4C				16243522-ENG		
7,8	C10753+E62 C10753+E63		5250	16213175/ 16243345PC-OPER 16243413-ENG 16243540(3.08), 16243542(3.42)(3.7		
7A,8A				16243345PF-OPER 16243483-ENG		
7B.8B				16243524-ENG		
TD 8C				16256455PG-OPER 16256264-ENG	₹	

CARLINE NAME	CARLINE CODE
C1500 SPORTSIDE SIERRA	80010
C1500 WIDESIDE SIERRA	80010
C1500 SPORTSIDE SIERRA (CLUB COUPE)	80010
C1500 WIDESIDE SIERRA (CLUB COUPE)	80010
C1500 SPORTSIDE PICKUP	55015
C1500 FLEETSIDE PICKUP	55015
C1500 SPORTSIDE PICKUP (EXTENDED CAB)	55015
C1500 FLEETSIDE PICKUP (EXTENDED CAB)	55015

ISSUED: ML-VR040 REVISED: ML-VR065, ML-VP178, ML-VR100

17-VGM4.3HPG1EK-15 (1997)

R: GE	ENERAL MOTORS	CORP. ENG	INE FAMILY:	VGM4.3HPG1EK	EVAP FAMILY: VG	M1111AYMFA
ENG CODE (LOC)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	IGNITION (PCM/CALIB PART N	EGR SYSTEM O.) PART NO.	CATALYTIC CONVERTER PART NO.
(C) 25,26	C10703+E62 C10703+E63 C10753+E62 C10753+E63	M 5	5000 5250	16213175/ 16204025ZR-OPER 16204185-ENG 16204115-TRANS	17096309	25152823, 25160245: MS 9571
25A,26A				16243345PC-OPER 16243415-ENG 16243566-TRANS		
25B.26B				16243487-ENG 16243345PF-OPER 16243566-TRANS		
25C 26C				16243528-ENG		
25D,26D				16256455PG-OPER 16256270-ENG		

CARLINE NAME	CARLINE CODE
C1500 SPORTSIDE SIERRA	80010
C1500 WIDESIDE SIERRA	80010
C1500 SPORTSIDE SIERRA (CLUB COUPE)	80010
C1500 WIDESIDE SIERRA (CLUB COUPE)	80010
C1500 SPORTSIDE PICKUP	55015
C1500 FLEETSIDE PICKUP	55015
C1500 SPORTSIDE PICKUP (EXTENDED CAB)	55015
C1500 FLEETSIDE PICKUP (EXTENDED CAB)	55015

SSUED: ML-VR100

REVISED:

17-VGM4.3HPG1EK-15.1 (1997)

E.O. #A-6-763-A

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM4.3HPG1EK EVAP FAMILY: VGM1111AYMGA ALL ENGINE CODES IN ENGINE FAMILY: CA(X) 495 () 505 () AB965 () EXH STD: CA TIER-1 (X) TLEV() LEV() ULEV() ZEV(); U.S. EPA TIER-1 () EVAP STD: 50K() USEFUL LIFE WITH R/L(X); 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): INDOLENE () PHASE 2 (X) SERVICE ACCUMULATION: STD AMA() MFR ADP(X); NMOG TEST PROCEDURE: NA(X) EQUIV() R/L TEST PROCEDURE: NA() PT SOURCE(X); HYBRID TYPE: NA APU CYCLE: NA ENGINE CONFIGURATION: 14 () V6 (X) V8 () DISPLACEMENT: 4.3 LITERS / 252 CU. IN. VALVE\$/CYLINDER: 2(X) 4() RATED HP: 200 @ 4400 RPM ENGINE LOCATION: FRONT (X) DRIVE: FWD() RWD(X) 4WD-FT() 4WD-PT() EXHAUST EMISSION CONTROL SYSTEM: #EGR, TWC, 2HO2S-HO2S(2), 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) 5,6	C10903+E63	A4	5000	16213175/ 16204025ZR-OPER 16232491-ENG 16204054(3.08), 16204055(3.42)(3.73)-TRAI	17096309 NS	25152823, 25160245: MS 9571
5A,6A				16213175/ 16243345PC-OPER 16243414-ENG 16243540(3.08), 16243542(3.42)(3.73)-TRAP	1 8	

CARLINE NAME	CARLINE CODE	
C1500 FLEETSIDE PICKUP	55015	
C1500 WIDESIDE SIERRA	80010	

ISSUED: ML-VR040

REVISED:

17-VGM4.3HPG1EK-16 (1997)

17-43HPG

REGENERAL MOTORS CORP. ENGINE FAMILY: VGM4.3HPG1EK EVAP FAMILY: VGM1111AYMGA

ENG CODE (LOC) (C)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST <u>WEIGHT</u>	IGNITION (PCM/CALIB PART NO.)	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
5B.6B	C10903+E63	A4	5000	16213175/ 16243345PF-OPER 16243485-ENG 16243540(3.08), 16243542(3.42)(3.73)-TRA	17096309 NS	25152823, 25160245: MS 9571
5C,6C				16243526-ENG		
27,28	C10903+E63 C10903+E63	M5	5000 5250	16213175/ 16204025ZR-OPER 16232497-ENG 16204115-TRANS		
27A.28A				16243416-ENG 16243345PC-OPER 16243566-TRANS		
27B 28B	ł			16243489-ENG 16243345PF-OPER		
∠∂0.280)			16243530-ENG		
27D.28D)			16256455PG-OPER 16256273-ENG		

CARLINE NAME CARLINE CODE C1500 WIDESIDE SIERRA 80010 C1500 FLEETSIDE PICKUP 55015

ISSUED: ML-VR040 REVISED: ML-VR065, ML-VP178, ML-VR100

17-VGM4.3HPG1EK-17 (1997)