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(Page 1 of 3)

State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-719-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 1996 model-year General Motors Corporation exhaust emission control systems are certified as described below for lightduty trucks:

Fuel Type: Gasoline

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Engine Family: TGM4.31PGFEK Displacement: 4.3 Liters (262 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 for this engine family in grams per mile are:

Loaded Vehicle <u>Weight(lbs.)</u>	Miles	Non-Methane <u>Hydrocarbons</u>	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	Carbon <u>Monoxide (20⁰F)</u>
0-3750	50,000	0.25	3.4	0.4	10.0
	100,000	0.31	4.2	0.6	n/a

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

Loaded Vehicle <u>Weight(lbs.)</u> <u>Miles</u>		Non-Methane <u>Hydrocarbons</u>	Carbon <u>Monoxide</u>	Nitrogen Oxides	Carbon <u>Monoxide (20⁰F)</u>	
0-3750	50,000	0.11	1.4	0.2	3.2	
	100,000	0.13	1.5	0.2	n/a	

GENERAL MOTORS CORPORATION

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 non-methane organic gas (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.). GENERAL MOTORS CORPORATION

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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 $\frac{30^{4}h}{day}$ of August 1995.

R. B. Summerfield

Assistant Division Chief Mobile Source Division

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

ENGINE FAMILY: TGM4.31PGFEK ANUFACTURER: GENERAL MOTORS CORPORATION EVAP STD: 50K 🗰 USEFUL LIFE WITH R/L 🗸 EVAPORATIVE FAMILY: TGM1089AYMEA EXH STD: TIER-0____ TIER-1_X__ TLEV____ LEV____ ULEV____ ZEV___; EPA TIER-0____ TIER-1_X__ MDV2 VEH CLASS(ES): PC LDT1 X LDT2____ MDV1____ MDV3 MDV4 MDV5 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: EXH CERT FUEL(S): INDO PH2 X DIESEL: 13 CCR 2282 OR 40 CFR 86.113-90____ OR -94____ M85___ OTHER (SPECIFY) CNG LPG____ FUEL TYPE(S): DEDICATED X FLEX-FUEL DUAL-FUEL GASOLINE X DIESEL ____ M85_ CNG____LNG___LPG___OTHER (SPECIFY)__ HYBRID: TYPE A___ B___ C___ APU CYCLE (E.G., OTTO, DIESEL, TURBINE): NA ENGINE CONFIGURATION: V6 DISPLACEMENT: 4.3 LITERS 262 CUBIC INCHES MID DRIVE: FWD____ ENGINE: FRONT X REAR RWD X 4WD-FT 4WD-PT EXHAUST EMISSION CONTROL SYSTEM & COMPONENTS: LEGR, TWC, 2HO2S-HO2S(2), SFI RLHP/DPA: SECTION 08.13.02.00 TRANS TYPE: EOUIV. IGN SYSTEM EGR (LOC)SYSTEM ENG VEH MODELS A-AUTO TEST (PCME/PROM) CATALYST M-MAN PART NO./CALIB PART NO. PART NO. CODE (SEE PAGE 1) WEIGHT (NW) Μ5 3500 16200785/ 17096188. 25152875 S10603+E62 , 4A 3625 16192374-ENG 17096309 S10603+E63 16187774-TRANS S10803+E63 TS10653+E62 16227245PF-0PER S10653+E63 3750 CS10653+E62 S10603+E62 5.5A A4 3500 16187797-ENG S10603+E63 3625 16187889. 16187890-TRANS S10803+E63 S10653+E63 3750 S10653+E62 6.6A TS10603+E62 3500 3625 S10603+E63 S10803+E63 S10653+E62 L CS10653+E62 3750 S10653+E63 CARLINE NAME CARLINE CODE CHEV S10 PICKUP 2WD 55082 GMC SONOMA PICKUP 2WD 80072 ISSUED: ML-TR009 REVISED: ML-TR063

17-TGM4.31PGFEK-3.1

E.O. #A-6-719-A

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: TGM4.31PGFEK USEFUL LIFE WITH R/L 💙 'AP_STD: 50K 🛩 EVAPORATIVE FAMILY: TGM1089AYMEA EXH STD: TIER-0____ TIER-1_X__ TLEV____ LEV____ ULEV____ ZEV___; EPA TIER-0____ TIER-1_X_ LDT2 MDV1 MDV2____ VEH CLASS(ES): PC LDT1 X MDV3____ MDV4 MDV5 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: EXH CERT FUEL(S): INDO____ PH2_X_ DIESEL: 13 CCR 2282 OR 40 CFR 86.113-90 M85 OR -94 CNG LPG OTHER (SPECIFY) FUEL TYPE(S): DEDICATED_X_ FLEX-FUEL____ DUAL-FUEL____ GASOLINE X DIESEL M85 CNG____LNG____LPG___OTHER (SPECIFY) HYBRID: TYPE A ___ B ___ C___ APU CYCLE (E.G., OTTO, DIESEL, TURBINE): NA ENGINE CONFIGURATION: V6 DISPLACEMENT: 4.3 LITERS 262 CUBIC INCHES ENGINE: FRONT X MID REAR DRIVE: FWD RWD X 4WD-FT 4WD-PT____ EXHAUST EMISSION CONTROL SYSTEM & COMPONENTS: LEGR, TWC, 2HO2S-HO2S(2), SFI RLHP/DPA: SECTION 08.13.02.00 (LOC)TRANS TYPE: EQUIV. IGN SYSTEM EGR ENG VEH MODELS A-AUTO TEST SYSTEM (PCME/PROM) CATALYST CODE (SEE PAGE 1) M-MAN WEIGHT PART NO./CALIB PART NO. PART NO. (NW) 4B M5 S10603+E62 3500 16200785/ 17096188. 25152875 S10603+E63 3625 16227500-ENG 17096309 S10803+E63 16227591-TRANS TS10653+E62 16232915PG-0PER S10653+E63 3750 CS10653+E62 4C 16232334-ENG 16235505PH-OPER 5B S10603+E62 Α4 3500 16227493-ENG S10603+E63 3625 16187889. S10803+E63 16187890-TRANS S10653+E63 3750 S10653+E62 5C 16232327-ENG 6B TS10603+E62 3500 16227493-ENG S10603+E63 3625 S10803+E63 S10653+E62 CS10653+E62 S10653+E63 3750 6C 16232327-ENG CARLINE NAME CARLINE CODE CHEV S10 PICKUP 2WD 55082 GMC SONOMA PICKUP 2WD 80072 SSUED: ML-TR028 REVISED: ML-TR053. ML-TR063

E.O. #A-6-719-A

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: TGM4.31PGFEK "VAP STD: 50K 🗰 USEFUL LIFE WITH R/L 💙 EVAPORATIVE FAMILY: TGM1089AYMEA EXH STD: TIER-0____ TIER-1_X__TLEV____ LEV____ ULEV____ ZEV___; EPA TIER-0____ TIER-1_X_ VEH CLASS(ES): PC____ LDT1_X_ LDT2____MDV1____ MDV2____ MDV3____ MDV4____ MDV5 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: EXH CERT FUEL(S): INDO PH2_X___DIESEL: 13 CCR 2282____ OR 40 CFR 86.113-90____ OR -94____ M85 CNG ____ LPG____ OTHER (SPECIFY)_ FUEL TYPE(S): DEDICATED_X_ FLEX-FUEL___ DUAL-FUEL___ GASOLINE_X_DIESEL____M85__ CNG____ LNG____ LPG____ OTHER (SPECIFY)___ HYBRID: TYPE A____ B____ C____ APU CYCLE (E.G., OTTO, DIESEL, TURBINE): NA ENGINE CONFIGURATION: V6 DISPLACEMENT: 4.3 LITERS 262 CUBIC INCHES MID ENGINE: FRONT X DRIVE: FWD____ REAR RWD<u>X</u> 4WD-FT 4WD-PT____ EXHAUST EMISSION CONTROL SYSTEM & COMPONENTS: LEGR. TWC. 2H02S-H02S(2), SFI RLHP/DPA: SECTION 08.13.02.00 (LOC)TRANS TYPE: EQUIV. IGN SYSTEM EGR ENG VEH MODELS TEST A-AUTO (PCME/PROM) SYSTEM CATALYST CODE (SEE PAGE 1) M-MAN WEIGHT PART NO./CALIB PART NO. PART NO. (NW)4D S10603+E62 M5 3500 16200785/ 17096188. 25152875 S10603+E63 3625 16232334-ENG 17096309 S10803+E63 16227591-TRANS TS10653+E62 16237015PJ-0PER S10653+E63 3750 CS10653+E62 5D S10603+E62 Α4 3500 16232327-ENG S10603+E63 16227559. 3625 S10803+E63 16227560-TRANS S10653+E63 3750 S10653+E62 6D TS10603+E62 3500 S10603+E63 3625 S10803+E63 S10653+E62 CS10653+E62 S10653+E63 3750 CARLINE NAME CARLINE CODE CHEV S10 PICKUP 2WD 55082 GMC SONOMA PICKUP 2WD 80072 ISSUED: ML-TR063 **REVISED**:

17-TGM4.31PGFEK-3.3

E.O. #A-6-719-A

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

				UFFLEMENTAL DATA 5			
MANUFAC	TURER: GENERAL	MOTORS CORPORAT	ION	ENGINE FAMIL	Y: TGM4.31F	PGFEK	
	MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: TGM4.31PGFEK EVAP STD: 50K 💥 USEFUL LIFE WITH R/L EVAPORATIVE FAMILY: TGM1089AYMEA						
	WEH CLASS(ES): PC LDT1 X LDT2 MOV1 MOV2 MOV2 MOV4 MOV4						
	VEH CLASS(ES): PC LDT1_X_ LDT2 MDV1 MDV2 MDV3 MDV4 MDV5 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY:						
				3 CCR 2282 OR	40 CER 86 1	13-90	
EXH CERT FUEL(S): INDO PH2_X DIESEL: 13 CCR 2282 OR 40 CFR 86.113-90 OR -94 M85 CNG LPG OTHER (SPECIFY)							
FUEL TYPE(S): DEDICATED_X_FLEX-FUELDUAL-FUEL GASOLINE_X_DIESELM85							
				PECIFY)			
				., OTTO, DIESEL, T			
				T: 4.3 LITERS			
				E: FWD RWD <u>X</u>		4WD-PT	
			UNENIS: I	EGR, TWC, 2HO2S-H	J2S(2), SFI		
RLHP/DP/	A: SECTION 08.13	3.02.00					
(LOC) ENG	VEH MODELS	TRANS TYPE:	EQUIV.	IGN SYSTEM	EGR		
<u>CODE</u>	(SEE PAGE 1)	M-MAN	<u>WEIGHT</u>	IGN SYSTEM (PCME/PROM) PART_NO./CALIB	<u>PART NO.</u>	<u>PART_NO.</u>	
(NW) 7.7A	S10603+E62	M5	3500			25152875	
	S10603+E63 S10803+E63		3625	16200785/ 16187795-ENG 16187774 TDANS	17096309	20102070	
	S10653+E62			16187774-TRANS 16227245PF-OPER			
	S10653+E63		3750				
7B				16227490-ENG 16232915PG-0PER			
70							
7C				16232324-ENG 16235505PH-OPER			
8,8A	S10603+E62		3500	16187795-ENG			
0,0/	S10603+E63		3625	16187577PB-OPER			
	S10803+E63 S10653+E62		3750				
	S10653+E63						
8B				16227490-ENG			
				16232915PG-OPER			
8C				16232324-ENG 16185505PH-OPER			
	<u>LINE NAME</u> PICKUP 2WD	CARLIN		TOTOOOOCH-OFLK			
	MA PICKUP 2WD	5508 8007					
'SSUED:	ML-TR009	REVISED: ML	-TR028. MI	TR053, ML-TR063			
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					17-TGM4.3	LPUPER-4.1	

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: TGM4.31PGFEK EVAP STD: 50K 🗮 USEFUL LIFE WITH R/L ♥ EVAPORATIVE FAMILY: TGM1089AYMEA EXH STD: TIER-0____ TIER-1_X__TLEV___ LEV___ ULEV___ ZEV ; EPA TIER-0___ TIER-1_X VEH CLASS(ES): PC____ LDT1 X LDT2____ MDV1____ MDV2____ MDV3____ MDV4 MDV5 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: EXH CERT FUEL(S): INDO PH2 X DIESEL: 13 CCR 2282 OR 40 CFR 86.113-90 OR -94____ M85___ LPG____ CNG OTHER (SPECIFY) FUEL TYPE(S): DEDICATED X FLEX-FUEL DUAL-FUEL GASOLINE X DIESEL M85 CNG____LNG___LPG___OTHER (SPECIFY) HYBRID: TYPE A __ B___ C___ APU CYCLE (E.G., OTTO, DIESEL, TURBINE): NA ENGINE CONFIGURATION: V6 DISPLACEMENT: 4.3 LITERS 262 CUBIC INCHES ENGINE: FRONT X MID REAR DRIVE: FWD____ RWD X 4WD-FT 4WD-PT EXHAUST EMISSION CONTROL SYSTEM & COMPONENTS: LEGR, TWC. 2H02S-H02S(2), SFI RLHP/DPA: SECTION 08.13.02.00 (LOC)TRANS TYPE: EOUIV. IGN SYSTEM EGR ENG VEH MODELS A-AUTO TEST (PCME/PROM) SYSTEM CATALYST CODE (SEE PAGE 1) M-MAN WEIGHT PART NO./CALIB PART NO. PART NO. W) 7D S10603+E62 M5 3500 16200785/ 17096188 25152875 S10603+E63 3625 16232324-ENG 17096309 S10803+E63 16227591-TRANS S10653+E62 16237015PJ-0PER S10653+E63 3750 8D S10603+E62 3500 S10603+E63 3625 S10803+E63 S10653+E62 3750 S10653+E63 CARLINE NAME CARLINE CODE CHEV S10 PICKUP 2WD 55082 GMC SONOMA PICKUP 2WD 80072 ISSUED: ML-TR063 **REVISED**:

17-TGM4.31PGFEK-4.2