State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-716 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 passenger cars:

<u>Fuel Type</u>: Gasoline

Engine_Family: TGM5.7V8GFEK Displacement: 5.7 Liters (350 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Secondary Air Injection Exhaust Gas Recirculation Dual Three Way Catalytic Converters Dual 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 (alternative in-use compliance standards in parentheses) for this engine family in grams per mile are:

	Non-Methane	Carbon	Nitrogen	Carbon
<u>Miles</u>	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Monoxide (20⁰F)</u>
50,000	0.25 (0.32)	3.4 (5.2)	0.4 (n/a)	10.0 (n/a)
100,000	0.31 (n/a)	4.2 (n/a)	0.6 (n/a)	n/a

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

	Non-Methane	Carbon	Nitrogen	Carbon	
<u>Miles</u>	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Monoxide (20⁰F)</u>	
50,000	0.10	1.7	0.2	6.2	
100,000	0.11	2.0	0.2	n/a	

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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, 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 20 percent of the manufacturer's projected sales of 1996 model-year California-certified passenger cars and light-duty trucks will be subject to alternative in-use compliance as stipulated in the above-referenced 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 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 5 day of May, 1995.

R. B. Summerfield

Assistant Division Chief Mobile Source Division

(FOR CARB USE ONLY)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET GASOLINE-FUELED PASSENGER CARS

VEHICLE MODELS:

<u>1 J C 3 7</u> (EXAMPLE)

Digit 1 - Selling Division

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

Digit 2 - Body Designation

- Cutlass Ciera, Cutlass Cruiser, Century, Century Wagon А
- Caprice, Custom Cruiser, Roadmaster Wagon, Coachbuilder Wagon, В Roadmaster
- Ninety-Eight, Park Avenue С
- Fleetwood, Limousine, Hearse/Coachbuilder D
- E - Eldorado

F

- Camaro, Firebird, Trans Am
- G
- Riviera, Aurora
 Bonneville, Eighty-Eight, LeSabre
 Cavalier, Sunfire Η
- J
- Seville K
- Ksp Concours, Deville L Corsica, Beretta
- Grand Am, Cutlass Calais, Skylark N
- Grand Prix, Regal, Cutlass Supreme, Lumina, Monte Carlo W
- Corvette Y
- Saturn Coupe/Sedan Ζ

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 08 - 2Dr Hatchback Coupe 19 - 4Dr Sedan 27 - 2Dr (Notchback) Coupe 35 - 4Dr Station Wagon 37 - 2Dr Hardtop Coupe 47 - 2Dr Hardtop Coupe

- 57 2Dr Hardtop Coupe 67 - 2Dr Convertible Coupe 68 - 4Dr Hatchback Sedan 69 - 4Dr (Notchback) Sedan 87 - 2Dr Hatchback Coupe 90 - Commercial Chassis 97 - 2Dr Hardtop Coupe

ISSUED: ML-TP021 **REVISED**:

17-TGM5.7V8GFEK-1

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E.O. #A-6-716 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: TGM5.7V8GFEK EVAPORATIVE FAMILY: TGM1070AYPAA EVAP STD: 50K X USEFUL LIFE WITH R/L____ EXH STD: TIER-0____TIER-1_X__TLEV___LEV___ULEV___ZEV___; EPA TIER-0____TIER-1_X_ MDV2____ MDV3____ ₩EH CLASS(ES): PC X LDT1 LDT2 MDV1 MDV4 MDV5 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: NA EXH CERT FUEL(S): INDO X PH2 DIESEL: 13 CCR 2282 OR 40 CFR 86.113-90____ OR -94____ M85____ CNG____ LPG___ OTHER (SPECIFY)_____ FUEL TYPE(S): DEDICATED____ FLEX-FUEL___ DUAL-FUEL___ GASOLINE_X_ DIESEL____ M85___ CNG____LNG___LPG___OTHER (SPECIFY)_____ HYBRID: TYPE A B C APU CYCLE: NA ENGINE CONFIGURATION: V8 DISPLACEMENT: 5.7 LITERS 350 CUBIC INCHES DRIVE: FWD RWD X 4WD-FT 4WD-PT ENGINE: FRONT X MID REAR EXHAUST EMISSION CONT SYS & COMPONENTS: AIR/2TWC/SFI/EGR/2H02S(2) RLHP/DPA: SECTION 08.13.02.00 EGR TRANS TYPE: EQUIV. IGN SYSTEM (LOC) SYSTEM CATALYST VEH MODELS A-AUTO TEST (PCME/PROM) ENG CALIB/PART NO. PART NO. <u>WEIG</u>HT PART NO. M-MAN CODE (SEE PAGE 1) 16214381/16233391. 17092172 4 6DW69 Α4 4750 25153052. 16214491/16233391 25153057 16228301/16233391. 4A 16228391/16233391 24 4BL19 A4 4500 16229921/16233391. 4BT69 16230451/16233391 1BL35 4750 4BR35 5 1BL19+WX3(1) 4500 16214421/16233391. 25153052. 16214461/16233391 25153057. 25165373 5A 16228331/16233391. 16228361/16233391 (1) Impala SS CARLINE NAME CARLINE CODE CAPRICE 12040 CAPRICE WAGON 12045 COACHBUILDER WAGON 55010 ROADMASTER 08060 ROADMASTER WAGON 08060 COACHBUILDER WAGON 08035 LIMOUSINE 10015 FLEETWOOD 10025 FUNERAL COACH HEARSE 10035 SSUED: ML-TP021 REVISED: ML-TR003, ML-TR006, ML-TR032, ML-TP166

(Impala SS is a upgraded model of Caprice;) differs in tire site, anel ratio, trim

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E.O. #A-6-716

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: TGM5.7V8GFEK EVAP STD: 50K X USEFUL LIFE WITH R/L___ EVAPORATIVE FAMILY: TGM1070AYPAA XH STD: TIER-0____ TIER-1_X__TLEV____LEV____ULEV____ZEV___; EPA TIER-0____TIER-1_X_ MDV2____MDV3____ VEH CLASS(ES): PC_X_ LDT1___ LDT2___ MDV1___ MDV5 MDV4 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: NA PH2____ DIESEL: 13 CCR 2282____ OR 40 CFR 86.113-90____ EXH CERT FUEL(S): INDO_X____ CNG LPG OTHER (SPECIFY)_____ OR -94 M85 FUEL TYPE(S): DEDICATED____FLEX-FUEL___DUAL-FUEL GASOLINE X DIESEL M85 CNG____LNG___LPG___OTHER (SPECIFY)_____ HYBRID: TYPE A ____ B____ C____ APU CYCLE: NA DISPLACEMENT: 5.7 LITERS 350 CUBIC INCHES ENGINE CONFIGURATION: V8 4WD-FT DRIVE: FWD____ RWD X 4WD-PT ENGINE: FRONT X MID REAR____ EXHAUST EMISSION CONT SYS & COMPONENTS: AIR/2TWC/SFI/EGR/2H02S(2) RLHP/DPA: SECTION 08.13.02.00 TRANS TYPE: EGR (LOC)EOUIV. IGN SYSTEM CATALYST (PCME/PROM) SYSTEM VEH MODELS A-AUTO TEST ENG CALIB/PART NO. PART NO. PART NO. M-MAN WEIGHT (SEE PAGE 1) CODE 25153052. 4750 16214391/16233391 17092172 3 6DW69 A4 6000 6DW69+V4U 6DW69+B90 16228311/16233391 3A 16229931/16233391 3B 4500 16214391/16233391 23 1BL19 4750 4BR35+B90 4BB90 1BL35 4BR35 4500 4BN69 4BT69 CARLINE NAME CARLINE CODE CAPRICE 12040 12045 CAPRICE WAGON COACHBUILDER WAGON 55010 ROADMASTER 08060 ROADMASTER WAGON 08060 COACHBUILDER WAGON 08035 LIMOUSINE 10015 10025 FLEETWOOD FUNERAL COACH HEARSE 10035 REVISED: ML-TR003, ML-TR006, ML-TR032, ML-TP166 -SSUED: ML-TP021

17-57V8G

E.O. #A-6-716

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: TGM5.7V8GFEK ₩VAP STD: 50K X USEFUL LIFE WITH R/L___ EVAPORATIVE FAMILY: TGM1070AYPAA EXH STD: TIER-0 TIER-1 X TLEV LEV ULEV ZEV ; EPA TIER-0 TIER-1 X VEH CLASS(ES): PC_X LDT1___ LDT2___ MDV1 MDV2 MDV3 MDV4 MDV5 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: NA EXH CERT FUEL(S): INDO X PH2 DIESEL: 13 CCR 2282 OR 40 CFR 86.113-90 M85 CNG LPG OTHER (SPECIFY) OR -94 DEDICATED_____ FLEX-FUEL____ DUAL-FUEL____ GASOLINE X DIESEL M85 FUEL TYPE(S): CNG____LNG___LPG___OTHER (SPECIFY)_____ HYBRID: TYPE A____ B____ C____ APU CYCLE: NA ENGINE CONFIGURATION: V8 DISPLACEMENT: 5.7 LITERS 350 CUBIC INCHES ENGINE: FRONT X MID REAR DRIVE: FWD RWD X 4WD-FT 4WD-PT EXHAUST EMISSION CONT SYS & COMPONENTS: AIR/2TWC/SFI/EGR/2H02S(2) RLHP/DPA: SECTION 08.13.02.00 (LOC) TRANS TYPE: EQUIV. IGN SYSTEM EGR ENG VEH MODELS TEST (PCMF/PROM)SYSTEM CATALYST A-AUTO CODE (SEE PAGE 1) M-MAN CALIB/PART NO. PART NO. WEIGHT PART NO. 1 6DW69 Α4 4750 16214471/16233391 17092172 25153052. 25153057 1A 16228371/16233391 1B 16229991/16233391 21 4500 4BN69 4BT69 1BL35 4750 4BR35 CARLINE NAME CARLINE CODE CAPRICE 12040 CAPRICE WAGON 12045 COACHBUILDER WAGON 55010 ROADMASTER 08060 ROADMASTER WAGON 08060 COACHBUILDER WAGON 08035 LIMOUSINE 10015 FLEETWOOD 10025 FUNERAL COACH HEARSE 10035

SSUED: ML-TP021

REVISED: ML-TR003, ML-TR006, ML-TP166

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION ENGINE FAMILY: TGM5.7V8GFEK ✓VAP STD: 50K<u>X</u> USEFUL LIFE WITH R/L___ EVAPORATIVE FAMILY: TGM1070AYPAA EXH STD: TIER-0____ TIER-1_X__TLEV____ LEV____ ULEV____ ZEV___; EPA TIER-0____ TIER-1_X_ MDV2 VEH CLASS(ES): PC_X__LDT1___LDT2___MDV1 MDV3____ MDV4 MDV5 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: NA PH2___ DIESEL: 13 CCR 2282____ OR 40 CFR 86.113-90____ EXH CERT FUEL(S): INDO X CNG LPG OTHER (SPECIFY) OR -94 M85 GASOLINE_X_ DIESEL M85 FUEL TYPE(S): DEDICATED____ FLEX-FUEL___ DUAL-FUEL CNG____ LNG____ LPG___ OTHER (SPECIFY)_____ HYBRID: TYPE A ____ B ___ C ____ APU CYCLE: NA ENGINE CONFIGURATION: V8 DISPLACEMENT: 5.7 LITERS 350 CUBIC INCHES REAR____ ENGINE: FRONT X MID DRIVE: FWD____ RWD X 4WD-FT 4WD-PT EXHAUST EMISSION CONT SYS & COMPONENTS: AIR/2TWC/SFI/EGR/2H02S(2) RLHP/DPA: SECTION 08.13.02.00 (LOC) TRANS TYPE: EOUIV. IGN SYSTEM EGR VEH MODELS ENG A-AUTO TEST (PCME/PROM) SYSTEM CATALYST CODE (SEE PAGE 1) M-MAN WEIGHT CALIB/PART NO PART NO. PART NO. 4B 6DW69 A4 4750 16229921/16233391, 17092172 25153052. 16230451/16233391 25153057 5B 1BL19+WX3(1) 4500 16229951/16233391. 25153052. 16229981/16233391 25153057, (1) Impala SS 25165373

CARLINE NAME CAPRICE CAPRICE WAGON COACHBUILDER WAGON ROADMASTER ROADMASTER WAGON COACHBUILDER WAGON LIMOUSINE ELEETWOOD	<u>CARLINE CODE</u> 12040 12045 55010 08060 08060 08035 10015
LIMOUSINE	10015
FLEETWOOD	10025
FUNERAL COACH HEARSE	10035

ISSUED: ML-TR006

REVISED: ML-TR032, ML-TP166

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E.O #A-6-716

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

EVAP STD: EXH STD: VEH CLASS SINGLE CEI EXH CERT I	50K_X_USEFUL TIER-0TIER- (ES): PC_X_LDT RT STD FOR MULTI-(FUEL(S): INDO_X OR -94 (S): DEDICATED	1LDT2MD CLASS ENGINE FAMILY PH2DIESEL: M85CNG FLEX-FUELDL	ULEV DV1 MDV 7: NA 13 CCR 228 LPG JAL-FUEL	ENGINE FAMILY: EVAPORATIVE FA ZEV; EPA TIER-0_ 22 MDV3 MDV4 32 OR 40 CFR 86.1 OTHER (SPECIFY) GASOLINE_X_ DIES	MILY: TGM107 TIER-1 <u>_X</u> MDV5 13-90 ELM85	
HYBRID:	TYPE A B C	A	VPU CYCLE:	NA		
	NFIGURATION: V8			5.7 LITERS	350 CUB	IC INCHES
	FRONT <u>X</u> MID		DRI	VE: FWD RWD_X	4WD-FT	4WD-PT
		& COMPONENTS: AIR/				
	SECTION 08.13.0					
(LOC) ENG CODE	VEH MODELS (SEE_PAGE_1)	TRANS TYPE: A-AUTO <u>M-MAN</u>	EQUIV. TEST WEIGHT	IGN SYSTEM (PCME/PROM) CALIB/PART_NO.	EGR SYSTEM <u>PART_NO.</u>	CATALYST PART_NO_
1	1FP87 2FV87 1FP67 2FV67	A4	3750 3875	16214501/16233391. 16214511/16233391	17092172	12551250. 12551249, 25153083, 25153080
11A	21,407			16228111/16233391. 16228121/16233391		
118				16230101/16233391. 16230111/16233391		
11C				16242271/16233391, 16242261/16233391		
12	1FP87 2FV87 1FP67		3750 3875	16214551/16233391		
12A	2FV67			16228131/16233391		
12B				16230121/16233391		
12C				16242281/16233391		
CARLINE N CAMARO TREBIRD		CARLINE CODE 12045 33020				
ISSUED:	ML-TPO21	REVISED: ML-TR003	, ML-TR006,	ML-TP166, ML-TR095		

E.O. #A-6-716

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

FUEL TYPE(S): DEDICATED	LIFE WITH R/L LDT2 M LASS ENGINE FAMIL PH2 DIESEL M85 CNG_ FLEX-FUEL D	/ULEV MDV1MDV .Y: NA .: 13 CCR 228 LPG DUAL-FUEL R (SPECIFY)_	EVAPORATIVE FAM ZEV: EPA TIER-0 /2 MDV3 MDV4 32 OR 40 CFR 86.1 OTHER (SPECIFY) GASOLINE_X_ DIES	MILY: TGM107 TIER-1 <u>_X</u> MDV5 13-90 ELM85	OAYMAA -
ENGINE CONFIGURATION: V8				350 CUE	NCHES
ENGINE: FRONT X MID					
EXHAUST EMISSION CONT SYS 8				4nd ()	4WD 11
RLHP/DPA: SECTION 08.13.02	.00				
(LOC) ENG VEH MODELS	TRANS TYPE:	EQUIV.	IGN SYSTEM (PCME/PROM)	EGR	CATALVET
ENG VEH MODELS CODE (SEE PAGE 1)	A-AUTO M-MAN	TEST WEIGHT	CALIB/PART NO.	PART_NO_	PART NO.
15 1FP87 2FV87 1FP67	M6	3750 3875	16214561/16233391, 16214771/16233391	17092172	12551249 25153083
2FV67 15A			16228141/16233391		25153080
15B			16230131/16233391. 16230141/16233391		
30 2FV87 30A 30B 30C 30D	Α4		16214531/16233391 16228211/16233391 16230181/16233391 16242321/16233391 16246601/16233391		
31 2FV87	M6		16214541/16233391		
31A 31B			16228201/16233391 16230171/16233391		
CARLINE NAME	<u>CARLINE CODE</u> 12045				

'SSUED: ML-TP021

FIREBIRD/FORMULA

33020

REVISED: ML-TR003, ML-TR006, ML-TP166, ML-TR095, ML-TR103