File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-830
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 1999 model-year General Motors Corporation new pure electric motor vehicles are certified as described below for passenger cars:

Emission Standard Category: Zero-Emission Vehicle (ZEV)

Fuel Type: Battery-Stored Electricity

Engine Family: XGMXV00.0100

Battery Type: Nickel Metal Hydride

Vehicle Model: EV1 Coupe

BE IT FURTHER RESOLVED: That because the listed vehicle models are powered by battery-stored electricity and have no on-board systems which consume any fuel other than electricity, the vehicles produce zero exhaust or evaporative emissions of any criteria pollutant (or precursor pollutant) and therefore meet the certification requirements for ZEVs set forth in Title 13, California Code of Regulations, Section 1960.1(g)(1) Note (2.1)a; the listed vehicle models also meet the definition of "low-emission motor vehicle" set forth in Health and Safety Code Sections 39037.05 and 43800.

BE IT FURTHER RESOLVED: That the listed models shall not be equipped with any fuel-fired auxiliary power sources or heaters.

BE IT FURTHER RESOLVED: That the listed vehicle models have demonstrated, based on the specific energy of the battery, to qualify for and shall be granted 2.07 ZEV placement credits for purposes of paragraph I.D.2. of the Memorandum of Agreement between the manufacturer and the Air Resources Board.

BE IT FURTHER RESOLVED: That to the extent that the manufacturer exceeds its obligation to place new ZEVs with advanced technology batteries into service in California urban areas pursuant to said Memorandum of Agreement, the listed vehicle models have demonstrated, based on the vehicle range or on the specific energy of the battery, to qualify for and shall be granted three ZEV credits for purposes of Title 13, California Code of Regulations, Section 1960.1(g)(2), note (9)a.

SUPERSEDED

BE IT FURTHER RESOLVED: That the listed vehicle models shall comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" (Title 13, California Code of Regulations, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed vehicle models shall be clearly labeled as "low-emission motor vehicles" pursuant to the requirements of Health and Safety Code Section 43802(a).

BE IT FURTHER RESOLVED: That because the vehicles certified by this executive order have no parts that affect emissions for which there is an applicable emission requirement, the manufacturer is not required to provide an emission control system warranty pursuant to Health and Safety Code Section 43205 or Title 13, California Code of Regulations, Sections 2035 et seq.

Quarterly production reports shall be submitted to the Executive Officer no later than 45 days after the end of each quarter.

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.

Executed at El Monte, California this 21st day of January 1999.

R. B. Summerfield, Chief
Mobile Source Operations Division

SUPERSEDED

(FOR CARB USE ONLY)

1999 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Energy Storage System 1 (NiMH)

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: XGMXV00.0100

VEH CLASS(ES): PC (X) LDT1 ( ) LDT2 ( ) MDV1 ( ) MDV2 ( ) MDV3 ( ) MDV4 ( ) MDV5 ( )

No. of ZEV Credits per vehicle: (2.07)**

Fuel Type: Electro Chemical Battery: (X) Fuel Cell ( ) Capacitor ( ) Other (specify) ( )

Battery Type(s): Lead Acid ( ) Nickel Cadnium ( ) SBLA ( ) Sodium Sulfur ( )

Zink Air ( ) Zink Bromine ( ) Lithium Polymer ( ) Other (specify): (X) Nickel Metal Hydride (NiMH)

Total Battery Weight: (481.1 kg) Battery Voltage: (13.2 V)

No. of batteries or modules per vehicle: (26) Total Battery Voltage: (343)

Charger(s): on-board ( ) off-board (X) conductive ( ) inductive(X)

Drive Motor(s): AC Induction (X) DC Brush ( ) DC Brushless( )

Switched Reluctance ( ) Other (specify): ( )

No. of Drive Motors (1) Rated motor power 137 hp @ 7000 rpm

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

Regererative Braking: No ( ) Yes (X) FW (X) RW ( ) AW ( )

Driver controlled Regen Braking: Yes (X) No ( ) Coast Regen Braking: Yes (X) No ( )

Air Contitioning: Yes (X) No ( )

Fuel Fired Heater: Fuel Type: Gas ( ) Diesel ( ) CNG ( ) LNG ( )

LPG ( ) Other (specify): ( ) Rated Heat Power: (None equipped)

Vehicle Models	Trans. type M5, A4	GVWR	Curb Weight	ETW Test Weight	DPA RLHP	Roadload Coefficients (w A/C) F_0	F_1	F_2
EV1 Coupe ZPX07	A1		2909	3250	7.09*	23.35	0.0000	0.01408

* Without 10% A/C factor.

CARLINE NAME	CARLINE CODE
EV1 Coupe	03083

** 2.07 ZEV credits for MOA purposes.
If exceeding MOA requirements, qualify for 3 ZEV credits per T13, CCR, § 1960.1(g)(2) Note (9)a.

ISSUED: ML-XP178 REVISED:

SUPERSEDED