State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-306-7 Relating to Certification of New Motor Vehicles

SOLECTRIA 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 Solectria Corporation new pure electric motor vehicles are certified as described below for medium-duty vehicles:

Emission Standard Category: Zero-Emission Vehicle (ZEV)

Fuel Type: Battery-Stored Electricity

Engine Family: XSLCH0000003

Battery Type: Lead Acid

<u>Vehicle Model</u>: CitiVan

BE IT FURTHER RESOLVED: That because the listed vehicle models are powered by battery-stored electricity, and the only on-board system consuming any fuel other than electricity is a fuel-fired heating system that is designed and equipped so that it cannot be activated at temperatures above 40 degrees Fahrenheit and has been demonstrated to have zero evaporative emissions under any and all possible operational modes and conditions, the vehicle models 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 no modification may be made to the on-board heating system that would make it operable at temperatures above 40 degrees Fahrenheit, or that would result in evaporative emissions under any possible operational mode or condition.

BE IT FURTHER RESOLVED: That the listed vehicle models have been demonstrated, based on the vehicle range capabilities or on the specific energy of the battery, to qualify for and shall be granted one ZEV credit pursuant to Title 13, California Code of Regulations, Section 1960.1(g)(2), note (9)a.

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 _5 da

_ day of April 1999.

R. B. Summerfield, Chief Mobile Source Operations Division

E.O. # A-306-7 Page 1

RLHP lbf = $-0.82 + 4.45V + 0.02V^2$

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

Manufacturer	turer Solectria Corporation Engine Family XSLCH00000					
Veh Class(es) PC_	LDTI LI	DT2 MDVI	MDV2	MDV3	MDV4 √ M	IDV5
No. of ZEV Credit	s per vehicle_1	_		<u> </u>		
Fuel Type: Electro	o chemical Battery	/ √ Fuel Cell	Capacite	or Other	(snecify)	
Battery Types(s):	Lead Acid_√	Nickel Cadr	nium	SBLA	Sodium Sulfur	,
Sodium Nicl	kel Chloride	Nickel Metal	Hydride	Lithium M	etal Disulfide	
Zinc Air	Zinc Bromine	e Lithiun	n Polymer	Other(sn	ecify)	_
Total Battery Weig	ght 2782 lbs Tor	al Battery Volum	ne 37 694 in ³	Battery Spec	cific Energy 19	7 Whike
No. of batteries or	modules per vehic	ile 52 ot	al Battery Von	tage 312V	(3.101 g) <u>; 9.</u>	
Charger(s): on-be	oard √ off-b	oard c	onductive V	inductive		
Drive Motor(s):	AC Induction √	DC Brush	DC E	Brushiess		
Switched Re	luctance	Other(specify)			-	
No. of Drive Moto	rs_1 Rated a	notor power 70!	kW @ 3000	rom Max	rpm 10.000	
Drive: FWD	RWD_√	4WD-FT	4WD-PT			_
Drive: FWDRegenerative Brak	ing: No	Yes √ FV	$V_{\perp} = R\overline{W}$	√ AW		
Driver Controller F	Regen Braking: Y	'es √ No	Coast Re	gen Braking:	Yes √ No.	
Air Conditioning:	Yes No	√ 				
Fuel Fired Heater:			1 √ CN	G Li	NG	
LPG	Other(specify)_	Rat	ed Heat Powe	r 5 kW		
				· · · · · · · · · · · · · · · · · · ·		
Vehicle						
	Trans, type				DPA	
(If onded see		CMMD	Curb	or	or	
	(if applicable)	UVWK	weight	l est Weight	RLHP	
						
CitiVan	auto/1spd	11,000 lbs	85 80 lbs	9790 lbs	lbf	

Date Issued:

Revisions: