

QUANTUM TECHNOLOGIES, INC.

EXECUTIVE ORDER A-328-0029 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

MODE YEAR		TEST GROUP			VEHICLE TYPE		AUST EMISSION DARD CATEGORY	FUEL TYPE						
2002	2TJX	(V02.20	22		Passenger Car	Low	Emission Vehicle (LEV)	Dual Fuel Gasoline (Indolene) or Compressed Natural Gas						
No.		EVAPORATIVE FAMILY (EVAP)			SPECIAL FEATUREMISSION CONTROL S		* = not applicabl	TWC = 3-way catalytic converter WUTWC = warm-u TWC ADSTWC = adsorber TWC OC = oxidation						
1	2TJXR01	24919		1	TWC, HO2S, O2S, SI	l (Gasoline), TBI (C	catalytic converter							
2	•	•				*	AIR = secondary air injection TBI = throttle body fu							
3	•					•		injection MFI = multiport fuel injection SFI sequential MFI CAC = charge air coole						
4	+					*	OBD (F) / OBD (P) ≈ on-board diagnosis; full / partial compliance (prefix) 2 = parallel (2) (suffix) ≈ seri							
EVAP No.	ECS No.				VEHICLE MAKES & MODELS		JECT TO SFTP	ABBREVIATIONS:						
1	1	2.2		-	CHEVROLET CAVALIER (DUAL FUEL)									
*	•	•		1	†									
٠		•		1	*									
	•			+			•							

The exhaust and evaporative emission standards (STD) and certification emission levels (CERT) for the listed vehicles are as follows. Any debit in the manufacturer's compliance plan for "NMOG Fleet Average" (passenger cars and lightduty trucks) or "Vehicle Equivalent Credit" (medium-duty vehicles) shall be equalized as required. The 50° Fahrenheit standards and CERT levels are listed below or compliance has been met based on the manufacturer's submitted compliance plan in lieu of actual testing. (Emission standards and certification levels in parentheses are for gasoline.)

NMOG FLEET AVERAGE [g/mi]			NMOG [g/mi] @RAF = 1.00 (*)			CH4 = methane NMOG = non-CH4 organic gas NMHC = non-CH4 hydrocarbon CO = carbon monoxide NOx = oxides of nitrogen HCHO = formaldehyde PM = particulate matter RAF = reactivity adjustment factor											
CERT	STD		CH4 RAF = 0.004		= 0.0047 }	CO [g/mi]			NOx [g/mi]		HCHO [mg/mi]		PM [g/mi]			Hwy NOx [g/mi]	
0.075	0.07	0.075		ERT	STD	CERT	STD	CI	ERT	STD	CERT	STD	CERT	STE	TD	CERT	STD
	@).027).046)	0.075 (0.125)	0.8 3.4 (0.8) (3.4)).1).1)	0.2	1 (0.4)	15 (15)	*		•	0.1 (0.02)	0.3 (0.3)
K = 1000 miles	@ 100K).030).048)	0.090 (0.156)	1.0 (0.9)	4.2 (4.2)).1).1)	0.3 (0.3)	1 (0.5)	18 (18)	•		•	0.1 (0.04)	(0.4)
	@ 50°1	F, 4K		•	*	•	•		•	•	*	•	•	•	•	•	•
	[g/ml] °F, 50K			g = gr	am nilligram	NMHC+NOx [g/ml] (composite)		NM	NMHC+NOx [g/mi] [US08]		CO [g/mi] [US06]			NMHC+NOx [g/mi] [SC03]		CO [g/mi] [SC03]	
CERT	STD		mi = n			CERT	STD	C	ERT	STD	CERT	STD	CERT	5	TD	CERT	STD
(4.8)	(10.0)				@ 4K				•		•	•	•		*	•	*
F = degree Fahrenhe		eit			@ 100K	•	. *		•	*	*	*	•	•		*	•
@ 100K	EVA	POR	ATIV	E FAM	LY 1	EVAPORATIVE F			LY 2	ΕV	/APORATI	VE FAMIL	.Y 3	EV	APORA	ATIVE FAMILY 4	
100K	3-D	2-0		RL	ORVR	3-D	2-D	RL	ORVR	3-D	2-D	RL	ORVR	3-D	2-D	RL	ORVR
CERT	1.7 (1.2)	1.2 (1.5)	0.00 (0.00)	(0.02)	*	•	•	•	•	•	*	•	*	•	•	*
STD	2.0 (2.0)			0.05 (0.05)	(0.20)	*	•	*	•	•	*	•	*	•	*		*
2-D, 3-D [g/	test] = 2-c	lay, 3-	lay o	diurnal a	nd hot-soak		RL [g/mi]	= runnir	ng loss		ORVR [g/ga	illon of fue	i dispensed	i] = on-bo	pard refu	ieling vapo	r recover

BE IT FURTHER RESOLVED: That for the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 (labeling), 1968.1 or 1968.1(m)(6.2) (on-board diagnostic systems; full or partial compliance), 2035 et seq. (emission control warranty), 2235 (fuel tank fill pipes and openings), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles).

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this day of July 2001.

R. B. Summerfield, Chief Mobile Source Operations Division