

QUANTUM TECHNOLOGIES, INC.

EXECUTIVE ORDER A-328-0031 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		TEST GROUP		VEHICLE TYPE		AUST EMISSION DARD CATEGORY	FUEL TYPE						
2002	2TJ	XT06.0188	•	5751-8500 Pounds Adjusted Loaded Vehicle Weight Medium-Duty Vehicle	t Low E	Emission Vehicle (LEV)	Dual Fuel Gasoline (Indolene) or Compressed Natural Gas						
No.		EVAPORATIVE FAMILY (EVAP)		SPECIAL FEATURE EMISSION CONTROL SYS		* ≂ not applicable	TWC = 3-way catalytic converter WUTWC = warm-up TWC ADSTWC = adsorber TWC OC = oxidation						
1	2TJXE0	133917	1	SFI, 2WUTWC, 2TWC	, 2HO2S(2), EGI	catalytic converter O2S = oxygen sensor HO2S = heated O2S							
2	•	•			*	AIR = secondary air injection TBI = throttle body fuel injection MFI = multiport fuel injection SFI =							
3	*		3		+	sequential MFI CAC = charge air cooler							
4	•	•			*	OBD (F) / OBD (P) = on-board diagnosis; full / partial compliance (prefix) 2 = parallel (2) (suffix) = series							
EVAI No.					VEHICLES SUB.	ABBREVIATIONS:							
1	1	6.0		Chevrolet C2500 HD/C2500 SILVERADO 2WD, K2500 HD SILVERADO 4WD; GMC C2500 HD/C2500 SIERRA 2WD, K2500 HD SIERRA 4WD									
•	*	+		•									
*	•	*		•									
	•				*								

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 light-duty 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 ≠ 0.43 (*) CH4 RAF = 0.0047 (*)			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		CO [g/mi]					NOx [g/mi]		HCHO [mg/mi]		P	PM [g/mi]		Hwy NOx [g/mi]				
*	*	*		ERT	STD	CERT	STD	CI	ERT	STD	CERT	STD	CERT	S	TD	CERT	STD	
	@	663 K∩W		.011 .0 94)	0,195 (0.390)	0.6 (1.6)	5.0 (5.0)		0.2 0.2)	0.6 (0.6)	1 (1)	22 (22)	*		*	0.02 (0.2)	1.2 (1.2)	
K = 1000 miles	@ 120K		0.011 (0.0 9 4)		0.280 (0.560)	0.6 (1.6)	7.3 (7.3)		0.2 0.2}	0.9 (0. 9)	1 (1)	32 (32)	•		•	0.02 (0.2)	1.8 (1.8)	
	@ 50°F, 4K			*	*	*	*		*	*	*	•	*		•	•	•	
CO [g/mi] g = gram @ 20°F, 50K mg = milligram					NMHC+NOx [g/mi] (composite)			NMHC+NOx [g/mi] [US06]		CO [g/ml] [US06]			NMHC+NOx [g/mi] [SC03]		CO [g/mi] [SC03]			
CERT	CERT STD		mi=r			CERT	STD	C	ERT	STD	CERT	STD	CERT	S	TD	CERT	STD	
(5.2) (12.5)			@ 4K		•	•	*		*	*	*	* *		•	•	*		
F = degree	Fahrenh	Fahrenheit		@ 120K		•	*		•	*	*	•	*	*		*	*	
@	EVAPORATIVE FAMILY 1					EVAPORATIVE FAMILY 2				EV	EVAPORATIVE FAMILY 3				EVAPORATIVE FAMILY 4			
120K	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	1.2 (1.7)	1.1 (1.5		0.00	(')	*	•	•	_	•	•	•	•	•	•	•	*	
STD	2.5 3.0 (2.5) (3.0				(*)	•	•	•	*	*	*	٠	•	*	•		•	
2-D, 3-D [g	/test] = 2-	đay, 3⊣	day d	fiurnal a	nd hot-soak		RL [g/mi]	= runni	ng loss		ORVR [g/ga	illon of fue	dispense	i] = on-be	oard refu	ieling vapo	r recovery	

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 October 2001

R. B. Summerfield, Chief Mobile Source Operations Division