## QUANTUM TECHNOLOGIES, INC.

EXECUTIVE ORDER A-328-0038
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 39515-39516 and Executive Order G-02-003;

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.

MOD YEA		TEST GROUP		l N	VEHICLE TYPE C=passenger car; LDT≃light-duty truck; IDV=medlum-duty vehicle; LVW=loaded vehicle weight; ALVW=adjusted LVW)	STAND (LEV=low e transitiona	NUST EMISSION PARD CATEGORY Imission vehicle; TLEV I LEV; ULEV=uitra LEV EV=super ULEV)	EXHAUST / EVAPORATIVE USEFUL LIFE (UL) (miles)	FUEL TYPE (CNG/LNG=compressed/ Ilquefled natural gas; LPG=liquefled petroleum gas)				
200			4TJXT06.0188		MDV: 5,751-8,500 pounds ALVW		ULEV	120K / 120K	C Dual Fuel CNG or Gasoline (Tier 2 Unleaded)				
No.	FΑN	AILY (E	VAF)	No.	SPECIAL FEATURES EMISSION CONTROL SYSTE	& EMS (ECS)	* = not applicable	OC/TWC=oxidizing/3-wa	OC/TWC=oxidizing/3-way cat. ADSTWC=adsorbing TWC WU= warm-up cat. O2S/HO2S=oxygen sensor/heated O2S				
1	4TJ	XR022	3841	1	SFI, 2WUTWC, 2TW	C, 2HO2S(2), C	MAFS/HAFS=air-fuel ratio sensor/heated AFS_EGR=exhaust						
2		*				*	gas recirculation AIR/PAIR=secondary air injection/pulsed AIR MFI/SFI= multiport fuel injection/sequential MFI TBI= throttle body injection TC/SC=turbo /super charger CAC=charge air cooler OBD (F) / (P)=full /partial on-board diagnostic prefix 2=parallel (2) suffix=series						
3		•				*							
4		*				*							
EVAF		ECS	ENGINE										
No.	No. N		SIZE (L		MAKES & MODELS ST.	ANDARDS AR	E UNDERLINED !	BBREVIATIONS: *					
1	1		6.0		Chevrolet: C2500 HD DUAL-FUEL SILVERADO 2WD, K2500 HD DUAL-FUEL SILVERADO 4WD; GMC: C2500 HD DUAL-FUEL SIERRA 2WD, K2500 HD DUAL-FUEL SIERRA 4WD								
*		*	*	$\top$	5000 02000 111	2 NOTE: SERVE AND							
*	*		•										
*	· ·		*			<del></del>	* .						

The exhaust and evaporative emission standards (STD) and certification emission levels (CERT) for the listed vehicles are as follows (compliance with the 50 °F testing requirement (for TLEV, LEV, ULEV, SULEV) may have been met based on the manufacturer's submitted compliance plan in lieu of testing). Any debit in the manufacturer's "NMOG Fleet Average" (PC and LDT) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required. (For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

AVE	NMOG FLEET AVERAGE [g/mi]  CERT   STD   NMOG   NMOG			= 0.43 (*); = 0.0047 (*)	NMOG or NMHC	diurnal+ho	ncno≃ion xt-soak RL	maidenyde . [g/mi]≖rur	rm≖par nning loss	ticulate ma ORVR [g/	atter RA /gallon di	F=reactive spensed]=	bon CO=ca ity adjustme	nt factor 2 fueling vap	2/3 D [g/test or recovery	]=2/3 day g=gram
*	1 3	*	NMOG NMHC CERT CERT [g/mi] [g/mi]		STD [g/mi]	mg mangram mi-mie /			Ox [g/mi] HC		CHO [mg/mi]		PM [g/mi] CERT STD		Hwy NOx [g/mi]	
	(	ĝ 50K	0.017 (0.084)	•	0.117 (0.195)	1.0 (1.6)	5.0 (5.0)	0.1 (0.2)	0.6 (0.6	3) (1	1 1)	11 (11)	*	*	0.1 (0.1)	1.2 (1.2)
		@ UL	0.017 (0.084)	*	0.167 (0.280)	1.0 (1.6)	7.3 (7.3)	0.1 (0.2)	0.9	9) (1	1)	16 (16)	*	*	0.1 (0.1)	1.8 (1.8)
	CO [g/mi] SFTP 1 = @ 4K (SULEV			EV, ULEV,	NMHC+NC	x [g/mi]	CO [	/mi]	NMHC	+NOx	·	t [g/mi]	* NMI	+ IC+NOx	CO	* [g/mi]
	@ 20°F & 📗 L		EV) or 50K (Tier 1, TLEV) 2 = @ UL (Tier 1, TLEV)		(compo	STD	(comp	osite) STD	[g/mi] CERT	[US06] STD		JS06]	[g/m	] [SC03]		03] STD
CERT	(4.1)		7 <del> </del> _	FTP @4k	•	•	*	*	* (0.16)	(0.60)	(1.0)	(11.8	(0.14)	(0.44)	(0.8)	(4.0)
STD	(12.5)	ABOB	ATIVE FAM	FTP @UL	*	•	*	*	*	*	•	*	*	*	*	*
@ UL	3-D	2-0		ORVR	3-D	PORATIVE 2-D		ORVR	3-D	PORATIV 2-D	E FAM	ILY 3 ORVE		/APORATI	VE FAMIL	_Y 4 ORVR
CERT	0,6 (0.6)	0.5 (0.	5) (0.00)	(0.14)	*	*	*	*	•	*	•	*	*	•	*	*
STD	2.5 (2.5)	3.0 (3.0			*	*	*	*	*	*	*	*	1	*	•	*

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 [emission control labels], 1968.1 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model PC, LDT and MDV).

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 2380 day of July 2003.

Allen Lyons, Chief

Mobile Source Operations Division