California Environmental Protection Agency	MAZDA MOTOR	Executive Order: A-016-0449 New Passenger Cars, Light-Duty Trucks and
OB Air Resources Board	CORPORATION	Medium-Duty Vehicles
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Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: 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.

					TEST GR	OUP IN	FORMAT	TION					
MODE		EST G	ROUP	VEH	HICLE CLASS	LE CLASS(ES) FUEL CATEGORY			TEGORY	FUEL TYPE			
2018 JTKXT02.5CDA LDT2						1			SINGLE FUEL HICLE		GASOLINE		
1	USEFUL	LIFE	(miles)		EHICLE EMIS	SION C	ATEGOR	RY	INTERIM / INT	ERMEDIA	TE IN-USE STD		
EXH/ORVR EVAP					FTP	SFTP	SFTP F			SFTP			
15	0000		150000	LE.	V3 SULEV30	SULEV30 LEV 3 COMPO			PM	PM .			
SPE	CIAL FE	ATUR		IAUST EMIS	SION CONTRO	DL		OBD ST	ATUS	ENGINE	DISPLACEMENT (L)		
1 WU-TWC, TWC, WR-HO2S, HO2S, DFI									ALL MODELS				
*	* *							TIAL	IAL *		2.5		
*				*				AL WITH *		•			
			EV	APORATIVE	& REFUELIN	G (EVA	P/ORVR)	FAMILY	INFORMATION				
EVA	P/ORV	RFAN	AILY	EVAPORAT	IVE STD CATE	EGORY		AP EMIS	SION STD CLASS	SPECIA	L FEATURES		
J	TKXROI	1760	2	LEV 3 O	PTION2 WITH	ION2 WITH FEL			LDT2		HCT		
			I		EMISSION O	REDIT		ATION	· ·				
Ŧ	A	LLOW	ANCE FO	R TEST GR	OUP						OPTIONAL EXH		
BASE	ELINE P	ZEV	AT	PZEV	TZEV	NC	ON-PZEV	ZERO-EV	DO DO	R	TRUCKS		
	*			*	*		N				N		
				NM	OG AND FLEE	TAVE	RAGE IN	FORMAT	ION				
NMOG RAF	VIOG CH4 NMOG/NMHC HCHO/NMHC PC+LD				PC+LDT		3750 LVW) LD		NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)		D NMOG+NOX FLEET STI MDV (10,001-14,000 GVWR) (g/mi)		
*	*		1.10	*		0.079			0.092		*		

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations. California Environmental Protection Agency

OB Air Resources Board

BE IT FURTHER RESOLVED:

The exhaust and evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50° Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's NMOG+NOx and greenhouse gas Fleet Average (PC or LDT or MDPV) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

BE IT FURTHER RESOLVED:

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], 1968.2 [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 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for PC, LDT and MDV).

BE IT FURTHER RESOLVED:

For evaporative family JTKXR0117GCQ, the manufacturer has attested to compliance with the 0.02 inch effective leak diameter standard in 13 CCR Section 1976(b)(1)(G)6 ["Effective Leak Diameter Standard And Procedure"].

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 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

California Environmental Protection Agency

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FUEL TYPE

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EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°F, 20°F)

CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; RAF: reactivity adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: milligram; mi: mile; K: 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental FTP

				NMOG+NOx (g/mi)			CO (g/mi)		NOx (g/mi)		•	HCH mg/n	-	PM (g/mi)					
	2		CE	RT	STD	CER	T ST		CERT	STD	CER	т	STD	CERT	STD				
FTP@50	ĸ	*		*	*	*	*		*	*	*		+	*	+				
FTP@U	L GASC	LINE 3 E10	1 0	016 (0.030	0.3	1.0	D	*	*	*	4		0.000	0.003				
50°F @4	K GASC	LINE 3 E10		030 (0.060	0.4	1.0	o	*	*	*		8		-				
		,		FU	EL TYP	F			N	MOG+NC	Dx (g/mi)			CO (g/mi)				
				10		-	,		CE	ERT	STD		CER	RT STD					
HWFET	@ 50K				*					*	*								
HWFET	r@ul			GASOLI	NE-LEV	3 E10			0.	004	0.030		 .* .						
20°F @	D 50K	COI	LD CO E	10 REGU	JLAR G	ASOLIN	NE (TIER	(3)				-	0.3		12.5				
			SFT	PEXHA	JST EM	ISSION	STAND	ARDS	AND C	ERTIFIC	ATION L	EVEL	S						
	US06						SC03		C		OMPOSITE								
	FUEL TY	PE		NMOG+N (g/mi)		CO (g/mi)	Pl (mg			G+NOx /mi)	CO (g/mi)		OG+NO> (g/mi)	c CO (g/mi)	PM (mg/mi				
@ 4K	. *		CERT	*		*	1.4			*	*		13	-					
			STD	D *		*		-		*	*			3					
	CERT		CERT	*		*	1			*	*	0	0.014	0.2	*				
@ UL		ASOLINE- LEV3 E10		STD		*	*		1	0		*	*	0.097		4.2	*		
	E		BIN		BIN			-	1					(0.040				
		WHO	OLE VEH	ICLE EV	APORA	TIVE E	MISSION	STAN	DARD	S AND C	ERTIFIC	ATIO	N LEVE	S					
					W	HOLE	VEHICLE	EVAPO	ORATI	IVE TEST	ING								
EVAPORATIVE FAMILY		EUEL IN		FUELTYPE		EUEL TYPE 1 3DHS		BDHS (g	g/test) @ UL			2DHS (g/test)) @ UL		R	L (g/mi) @	g/mi) @ UL	
						CER	RT S	STD	FEL	CEF	RT STD		FEL	_	CER	T	r std		
JTKXR0117GCQ			ASOLINE EV3 E10	0 2	15 0	.400 0.300		*		0.400	0.300		0.00		0.05				
0	RVR / FU	EL O	NLY / CA	NISTER	BLEED	EVAP	ORATIVE	EMIS	SION	STANDA	RDS AND	CEF	RTIFICA	TION LEV	ELS				
								FU	JEL O	NLY EVA	P & CAN	ISTE	R BLEED)					
	ORATIVE MILY	ORVR (g/gallor			DUL	FUEL TYPE			3DHS RIG TEST (g/test) @ UL		2DHS RIG (g/test) @				ANISTER est) @ 4K				
	4	FUE	EL TYPE	CERT	STD	1		CE		STD	CERT	1	STD	CERT	STD				
JTKXR	0117GCQ		SOLINE- ER3 E10	0.01	0.20	1	OLINE- V3 E10	+	,	*	*		*	0.014	0.020				

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*: not applicable; #: pounds; UL: useful life; PC: pass LDT<6000#GVWR,3751-5750#LVW; LDT3: LDT 600 8500#ALVW; MDV: medium-duty vehicle; MDV4: ME duty passenger vehicle; HDV: heavy-duty vehicle; EC emission limit; GVWR: gross vehicle weight rating; L' ULEV: ultra LEV; SULEV: super ULEV; ZEV: zero-er TZEV: transitional ZEV; TWC/OC: 3-way/oxidizing ca catalyst; NAC: NOx adsorption catalyst; SCR-U or S0 NH3OC: ammonia oxidation catalyst; CTOX/PTOX: o filter for spark-ignited engine; HO2S/O2S: heated/ox; NOXS: NOx sensor; PMS: PM sensor; RDQS: reduc EGRC: EGR cooler; AIR/AIRE: secondary air injection fuel injection; DFI/IFI: direct/indirect fuel injection; TC full/partial/partial with fines on-board diagnostic; DOF	01-8500#GVWR,3751-5750 V 8501-10000#GVWR; MI CS: emission control system VW: loaded vehicle weight; nission vehicle; PZEV: part atalyst; ADSTWC: adsorbin CRC/SCR-N or SCRC-NH3 continuous/periodic trap oxi ygen sensor; WR-HO2S or tant quality sensor; NH3S: on (belt driven)/(electric driv /SC: turbo/super charger; (#ALVW; LDT4: LDT 6001-8500#GVWR,5751- DV5: MDV 10001-14000#GVWR; MDPV: medium- n; CERT: certification; STD: standard; FEL: family ALVW: adjusted LVW; LEV: low emission vehicle; ial ZEV; AT PZEV: advanced technology PZEV; g TWC; HAC: HC adsorbing catalyst; WU: warm-up : selective catalytic reduction-urea/ammonia; dizer; DPF: diesel particulate filter (active); GPF: PM AFS: wide range/linear/heated air-fuel ratio sensor; ammonia sensor; EGR: exhaust gas recirculation; en); PAIR: pulsed AIR; SFI/MFI: sequential/multiport CAC: charge air cooler; FFH: fuel fired heater; F/P/\$:

prefix 2: parallel; (2) suffix: series; CNG/LNG: compressed/liquefied natural gas; LPG: liquefied petroleum gas; E85: "85%" ethanol ("15%"gasoline) fuel; E10: "10%" ethanol ("90%"gasoline) fuel; A: automatic (with lockup); M: manual transmission; SA: semiautomatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission

2018 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
MAZDA	CX-5	LDT2	2.5	SA6	JTKXR0117GCQ	1	F	*