### California Environmental Protection Agency

# **⊘** Air Resources Board

FORD MOTOR COMPANY

Executive Order: A-010-1957

New Passenger Cars, Light-Duty Trucks and

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 GROUP INFORMATION														
MODE! YEAR	- 1 TE	EST G	ROUP		VE	HICLE CLASS(E	S)		FUEL CATEGORY				FUEL TYPE		
2017	HF	MXT01	.52GA	LDT2				DEDICATED SINGLE FUEL VEHICLE			GASOLINE				
l	JSEFUL	LIFE	(miles)		1	/EHICLE EMISS	ION	CA	TEGOR	Y		TERIM / IN	ERN	IEDIA	E IN-USE STD
EXH	/ORVR		EVAP			FTP			SFTP			FTP			SFTP
15	0000		150000		LE	V3 ULEV125	LE	V 3	3 СОМРО	SITE		*			*
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS							L			OBD S	TAT	us	EN	IGINE	DISPLACEMENT (L)
1	TWC	(2),	HO2S, W	R-HO	2S, C	AC, TC, DFI			FUL	.L	AI	L MODELS			
*				*					PART	IAL		*			1.5
*	* *							Ī	PARTIAL FINE		* I				
	EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION														
EVA	P / ORV	R FA	/ILY	EVAF	PORAT	IVE STD CATE	GOR	RY EVAP EMISSION STE VEHICLE CLASS				SPECIAL FEATURES			
Н	FMXR01	30NDI	ਵ	LE	v 3 o	PTION2 WITH	FEL		LDT2			HCT			
						EMISSION C	RED	IT I	NFORM	ATION					
	А	LLOW	ANCE FO	R TE	ST GR	OUP			MOG CRI			NMOG CR		FOR	OPTIONAL EXH. STD FOR WORK
BASE	LINE P	ZEV	AT	PZEV		TZEV		IOI	V-F2EV 2	.ERO-E	VAL		/K		TRUCKS
	*			*		*			И	•		1	ī		N
					NN	OG AND FLEE	TAV	ER	AGE INF	ORMA	TIOI	١			
NMOG RAF	CH4 RAF	NMC	FTP G/NMHC ATIO		O/NMI RATIO	PC+LDT (	NMOG+NOX FLEE PC+LDT (0-3750 L (g/mi)			VW) LDT (375		NOX FLEET STD   751 LVW-8500 ) + MDPV (g/mi)		NMOG+NOX FLEET STD MDV (10001-14000 GVWR) (g/mi)	
*	*		1.10		*	C	.08	6		0.101 *			*		

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.

#### 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],

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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).

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 March 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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## **ATTACHMENT**

## **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

-			-
ΗU	JEL	. TY	PE

	00 60	NMOG+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
Battopa Statement		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	. *	*	*	*	*	*	*	*
FTP@UL	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	0.060	0.125	0.4	2.1	*	*	*	4	*	0.01
50°F @4K	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	0.047	0.250	0.38	2.1	*	*	*	16		

		NMOG+N	Ox (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	0.016	0.125			
20°F @ 50K	COLD CO E10 REGULAR GASLINE (TIER 3)			0.50	12.5	

### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

					SC03	3	COMPOSITE			
	FUEL TYPE		NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMOG+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	*	CERT	*	*		*	* .	(		
@ 41V		STD	*	*		*	*			1000
		CERT	*	*	*	*	*	0.035	1.5	*
@ UL	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	STD	*	*	*	*	*	0.103	4.2	*
		BIN						0.100		17

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	WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS								
	FUEL TYPE		WHOLE \						
EVAPORATIVE FAMILY		3DHS (g/test) @ UL			2Dł	HS (g/test) (	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
HFMXR0130NDF	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	0.1834	0.400	0.400	0.1434	0.400	0.400	0.000	0.05

### ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

				FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL TYPE	3DHS RIG TEST (g/test) @ UL		2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K				
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD			
HFMXR0130NDF	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	0.03	0.20	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	*	*	*	*	0.0095	0.020			

: not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: LDT<6000#GVWR,3751-5750#LVW; LDT3: LDT 6001-8500#GVWR,3751-5750#ALVW; LDT4: LDT 6001-8500#GVWR,5751-8500#ALVW; MDV: medium-duty vehicle; MDV4: MDV 8501-10000#GVWR; MDV5: MDV 10001-14000#GVWR; MDPV: mediumduty passenger vehicle: HDV: heavy-duty vehicle; ECS: emission control system; CERT: certification; STD: standard; FEL: family emission limit; GVWR: gross vehicle weight rating; LVW: loaded vehicle weight; ALVW: adjusted LVW; LEV: low emission vehicle; ULEV: ultra LEV; SULEV: super ULEV; ZEV: zero-emission vehicle; PZEV: partial ZEV; AT PZEV: advanced technology PZEV; TZEV: transitional ZEV; TWC/OC: 3-way/oxidizing catalyst; ADSTWC: adsorbing TWC; HAC: HC adsorbing catalyst; WU: warm-up catalyst; NAC: NOx adsorption catalyst; SCR-U or SCRC/SCR-N or SCRC-NH3: selective catalytic reduction-urea/ammonia: NH3OC: ammonia oxidation catalyst; CTOX/PTOX: continuous/periodic trap oxidizer; DPF: diesel particulate filter (active); GPF: PM filter for spark-ignited engine; HO2S/O2S: heated/oxygen sensor; WR-HO2S or AFS: wide range/linear/heated air-fuel ratio sensor; NOXS: NOx sensor; PMS: PM sensor; RDQS: reductant quality sensor; NH3S: ammonia sensor; EGR: exhaust gas recirculation; EGRC: EGR cooler; AIR/AIRE: secondary air injection (belt driven)/(electric driven); PAIR: pulsed AIR; SFI/MFI: sequential/multiport fuel injection; DFI/IFI: direct/indirect fuel injection; TC/SC: turbo/super charger; CAC: charge air cooler; F/P/\$: full/partial/partial with fines on-board diagnostic; DOR: direct ozone reducing; HCT: hydrocarbon trap; BCAN: bleed carbon canister; 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: semi-automatic transmission; CV continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission

### 2017 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE		MODEL	VEH CLASS ENGINE (L)		TRANS TYPE	TYPE EVAPORATIVE FAMILY		OBD	PZEV TYPE
	FORD ESCAPE AWD LDT2		LDT2	1.5	SA6	HFMXR0130NDF	1	F	*
	FORD	ESCAPE FWD	LDT2	1.5	SA6	HFMXR0130NDF	1	F	*