### California Environmental Protection Agency

**⊘** Air Resources Board

FORD MOTOR COMPANY

Executive Order: A-010-1956

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	- I TI	EST G	ROUP		VEH	HICLE CLASS(E	S)		FUE	EL C	ATE	GORY	FUEL TYPE		
2017	HF	MXT02	2.02HA			LDT2		DEDICATED SINGLE FUEL VEHICLE				GASOLINE			
USEFUL LIFE (miles) VEHICLE EMISSIO							ION (	CAT	EGORY		IN	ITERIM / INT	ERME	DIAT	E IN-USE STD
EXH	/ORVR		EVAP			FTP			SFTP			FTP			SFTP
15	0000		150000		LE	EV3 ULEV70	LEV	3	COMPOSIT	E		NMOG+NOX			*
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS									ОВ	D S1	ΓΑΤΙ	JS	ENG	SINE	DISPLACEMENT (L)
1 TWC(2), HO2S, WR-HO2S, CAC, TC, DFI									FULL		AL	L MODELS			
*	* *								PARTIAL			*			2.0
*	* *							P	ARTIAL WI FINES	ITH	*				
	EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION														
EVA	P / ORV	R FAN	VILY	EVAP	ORAT	IVE STD CATE	3OR'	PRY EVAP EMISSION STD VEHICLE CLASS			SPE	SPECIAL FEATURES			
Н	FMXR01	30ND	F	LEV	7 3 0	PTION2 WITH I	FEL	L LDT2			нст				
						EMISSION CF	REDI	T IN	FORMATION	ON					
	Α	LLOW	ANCE FO	R TES	T GR	OUP	_	NMOG CREDIT FOR NMOG CREDIT				OR	OPTIONAL EXH.		
BASE	LINE P	ZEV	АТ	PZEV		TZEV	N	JN-	PZEV ZER	O-E	VAP	DC	JK		TRUCKS
	*			*		*			N			N	ī		N
					NM	OG AND FLEET	AVE	RA	GE INFOR	MAT	rion	l			
NMOG RAF	NMOG/NMHC   PC+I D1 /B-2			0-375	750 LVW) LDT		NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)		_	NMOG+NOX FLEET STD MDV (10001-14000 GVWR) (g/mi)					
*	* 1.10 * 0.08					.086			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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**FUEL TYPE** 

## **ATTACHMENT**

### **EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS**

EXHAUST EMISSION	STANDARDS	AND CE	RTIFICATION	I FVFI S	FTP	HWEET	50°F 20°F	1
EVUVOOI FINISSION	STANDANDS	MIND OF	VIII ICA IIOIA	LL A LLO	TIT,	LIAAL FI	30 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)		HCHO (mg/mi)		PM (g/mi)	
The Control of the Co		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	0.0570	0.070	1.33	1.7	*	*	*	4	*	0.01
50°F @4K	*	*	*	*	*	*	*	*	*	and the second	

	FUEL TYPE	NMOG+N	lOx (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	0.0320	0.070			
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER 3)			1.52	12.5	

#### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		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	*	*		*	*				
e		STD	*	*		*	*				
		CERT	*	*	* .	*	*	0.0507	2.12	*	
@ UL	TIER 3 E10 REGULAR GASOLINE (9 RVP @ LOW ALT.)	STD	*	*	*	*	*	0.103	4.2	*	
		BIN			rijis (b. 1			0.070	345 - 1 ·		

## WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	FUEL TYPE		WHOLE						
		3DHS (g/test) @ UL			2DI	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

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# ODVD / ELIEL ONLY / CANISTED DI EED EVADODATIVE EMISSION STANDADOS AND CEDTIEICATION I EVELS

UKVK/FU	EL ONLT / CA	MISIEK	BLEED	EMISSION	INISSION STANDARDS AND CERTIFICATION LEVELS							
				FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL TYPE		IG TEST ) @ UL	2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4H			
	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	MAKE MODEL		ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
FORD	ESCAPE AWD	LDT2	2.0	SA6	HFMXR0130NDF	1	F	*
FORD	ESCAPE FWD	LDT2	2.0	SA6	HFMXR0130NDF	1	F	*
LINCOLN	MKC AWD	LDT2	2.0	SA6	HFMXR0130NDF	1	F	*
LINCOLN	MKC FWD	LDT2	2.0	SA6	HFMXR0130NDF	1	F	*