### California Environmental Protection Agency

# **O** Air Resources Board

FORD MOTOR COMPANY

Executive Order: A-010-1990

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 GROU	PINF	ORMATIO	N				
MODE YEAR	- I T	TEST GROUP		VEHICLE CLASS(ES)			FUEL CATEGO		GORY	FUEL TYPE		
2017	HF	HFMXD03.57BZ		MDV5			DEDICATED SINGLE FUEL VEHICLE			GASOLINE		
-	USEFUL	LIFE	(miles)	es) VEHICLE EMISSION CATEGORY INTERIM / INTERMEDIATE IN-USE S							TE IN-USE STD	
EXH/ORVR EVAP			EVAP	FTP			SFTP		FTP		SFTP	
12	120000 15000			LE	EV2 ULEV *		*	4	*	*		
SPE	CIAL FE	ATUR		AUST EMISS	SION CONTROL		O	BD STATE	JS	ENGINE	DISPLACEMENT (L)	
1	2TWC, 2WR-HO2S, 2HO2S, DFI, 2TC, CAC						FULL	ULL *				
*	*						PARTIA	L AL	L MODELS	3.5		
*				* .		PARTIAL WITH FINES		VITH	*			
		306	EV	APORATIVE	& REFUELING (E	EVAP	/ORVR) FA	MILY INF	ORMATION	1-		
EVAP / ORVR FAMILY EVAPORATIVE STD CAT					VE STD CATEGO	ORY EVAP EMISSION VEHICLE CI		CDECIA		L FEATURES		
H	HFMXR0190NBS				LEV 2			MDV5		*		
					EMISSION CRE	DIT II	NFORMAT	ION				
ALLOWANCE FOR TEST GROUP								NWOG CREDIT FOR		OPTIONAL EXH. STD FOR WORK		
BASELINE PZEV AT PZEV				PZEV	TZEV		ION-PZEV ZERO-EVAP		DOR		TRUCKS	
* *				*	* 1		N	N N		N		
				NMC	G AND FLEET	VER	AGE INFO	RMATION	l			
NMOG RAF	CH4 RAF					N-850	O GVW) MI	NMOG+NOX FLEET ST MDV (8501-10000 GVW (g/mi)		D NMOG+NOX FLEET STD R) MDV (10001-14000 GVWR) (g/mi)		
*	*	:	1.04	*	*				*	*		

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

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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).

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 212

day of July 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

ORVR (g/gallon) @ UL

CERT

0.169

STD

0.20

**FUEL TYPE** 

E10-EPA

**EVAPORATIVE** 

**FAMILY** 

HFMXR0190NBS

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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 **FUEL TYPE NMOG НСНО** CO NOx PM (g/mi) (g/mi) (g/mi) (mg/mi) (g/mi) CERT STD CERT STD CERT STD CERT STD CERT STD FTP@50K \* GASOLINE -FTP@UL TIER 2 0.0269 0.167 1.02 7.3 0.03 0.4 21 0.06 UNLEADED \* \* \* \* \* \* \* 50°F @4K NOx (g/mi) CO (g/mi) **FUEL TYPE** CERT CERT STD STD HWFET @ 50K TIER 2 UNLEADED 0.01 0.8 HWFET @ UL GASOLINE -20°F @ 50K \* SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS **US06** SC03 COMPOSITE **FUEL TYPE** NMHC+NO<sub>X</sub> PM NMHC+NOx CO NMOG+NO<sub>X</sub> PM CO CO (g/mi) (g/mi) (mg/mi) (g/mi) (g/mi) (g/mi) (g/mi) (mg/mi) \* CERT @ 4K STD \* \* CERT \* \* \* \* \* \* \* \* @ UL STD BIN WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS WHOLE VEHICLE EVAPORATIVE TESTING RL (g/mi) @ UL **EVAPORATIVE FUEL TYPE** 3DHS (g/test) @ UL 2DHS (g/test) @ UL FAMILY CERT STD FEL CERT FEL CERT STD STD 0.354 HFMXR0190NBS E10-EPA 1.00 0.329 1.25 \* 0.000 0.05 ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

**FUEL ONLY EVAP & CANISTER BLEED** 

CERT

**2DHS RIG TEST** 

(g/test) @ UL

STD

**BLEED CANISTER** 

TEST (g/test) @ 4K

STD

CERT

**3DHS RIG TEST** 

(g/test) @ UL

STD

CERT

**FUEL TYPE** 

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: not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: .DT<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	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE	
FORD	TRANSIT T350 VAN	MDV5	3.5	SA6	HFMXR0190NBS	1	P	*	
FORD	TRANSIT T350 WAGON	MDV5	3.5	SA6	HFMXR0190NBS	1	P	*	