## California Environmental Protection Agency

## **O** Air Resources Board

HYUNDAI MOTOR COMPANY Executive Order: A-254-0325

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 GRO	UP IN	NFC	ORMATION						
MODE YEAR	- i Ti	EST G	ROUP	VEHICLE CLASS(ES)				FUEL CATEGORY				FUEL TYPE			
2017	нн	YXV02	2.41W5			PC		DEDICATED SIN					G2	GASOLINE	
USEFUL LIFE (miles)					VEHICLE EMISSION CATE				TEGORY	RY INTERIM / INT			TERMEDIATE IN-USE STD		
EXH/ORVR EVAP					FTP			,	SFTP	71	FTP			SFTP	
15	150000 150000				LE	V3 ULEV70	ULEV70 LEV 3 C				NMOG+NOX		NMOG+NOX		
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS							L		OBD	ST	TATUS		ENGINE DISPLACEME (L)		
1	WU-TWC, TWC, WR-HO2S, HO2S, DFI								FULL		ALL MODELS		2.4		
*	*								PARTIAL		*				
*	*							P	ARTIAL WIT	*			1		
EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION															
EVAP / ORVR FAMILY EVAPORATIVE STD CATEGOR							SORY	RY EVAP EMISS VEHICLE (						SPECIAL FEATURES	
HHYXR0130AVE					LEV 2					PC			*		
						EMISSION CF	REDIT	ΓIN	IFORMATIO	N					
ALLOWANCE FOR TEST GROUP								NMOG CREDIT FOR NMOG CREDIT NON-PZEV ZERO-EVAP DOR				OPTIONAL EXH. STD FOR WORK TRUCKS			
BASE	LINE P	ZEV	AI	PZEV		TZEV	_							TROOKS	
* *						*		И				N	И		
NMOG AND FLEET AVERAGE INFORMATION															
NMOG RAF	CH4 RAF	NMO	FTP G/NMHC ATIO	HCHO/NMHC NMOG+NOX F PC+LDT (0-3' (g/mi			0-375	750 LVW) LDT			NOX FLEET S 3751 LVW-850 ) + MDPV (g/m	)	MDV (10001-14000		
*	*		1.10		*	0	.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 <u>26</u> day of January 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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								ATT	ACI	-IMI	ENT							
	EXI	HAU	ST	AND E	VAPOR	RATI	VE EN	IISSIC	ON S	TAN	DAR	DS AND	CERTI	FIC	ATION	LEVEL	S	
		E	XHA	UST EM	SSION	STAN	DARDS	AND C	CERT	IFICA	TION L	EVELS	(FTP, HW	FET,	50°F, 20	°F)		
FU		m ac O			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)	
					CERT S		CE	RT	STD		CERT STD		CER	Т	STD	CERT	STD	
FTP@5	P@50K *			*	*	١,	*	*		*	*	*		*	*	*		
	TP@UL GASOLIN			1 0	036	0.070	0	. 5	1.7		*	*	*	4		*	0.01	
50°F @	AK I	GASOLINE- LEV3 E10		1 0	041	0.140	0	.2	1.7	7	* *		*	-	16		1 2 2 2	
											N	MOG+NO	Ox (g/mi)			CO (g/m	i)	
					FL	/PE	=			CERT		STD		CERT		STD		
HWFE	T @ 50	0K				*						*	*					
HWFET @ UL				GASOLINE-LEV3 E10						0.	020	0.070				** A (\$ 1).		
					SOLINE-COLD CO LOW OCTANE									1.4		10.0		
	<u>e</u> •••									RDS	AND C	ERTIFIC	ATION LE	EVEL	S			
					FTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS US06 SC03 COMPOSIT										MPOSIT	E		
*	FUEL		L TYPE		NMOG+NOx (g/mi)		CO (g/m		PM (mg/mi)		NMOG+NOx (g/mi)		CO NN (g/mi)		OG+NOx (g/mi)	CO (g/mi	PM (mg/mi)	
@ 4V		*		CERT *		*	*			*		*			i ji	14.57		
@ 4K				STD	*		*					*						
		GASOLINE- LEV3 E10		CERT			*	* *			* .		*	0.035		1.2	*	
@ UL				STD	*		*		*	ŧ		*	*		0.103	4.2	*	
				BIN	1		1 1-						0.070		0.070			
			WH	OLE VEH	ICLE E	/APO	RATIVE	EMISS	SION	STAN	NDARD	SAND	ERTIFIC	ATIO	N LEVEL	S		
							WHOLE	VEHI	CLE	EVAP	ORATI	VE TEST	ING					
EVAP FA	ORAT		/E FUEL TYI		TYPE 3DHS (			g/test) @ UL			2DHS (g/test)		@ UL	@ UL		RL (g/mi) (		
· Amie					CERT		STD	FE	FEL CE		RT STD		FEL		CER	Т	STD	
HHYXR0130AVE		AVE		SOLINE PHASE	10.391		0.50	.50 *		0.	.50 0.65		*	*		0.02		
(	ORVR	/ FUI	EL C	NLY / C	ANISTER	BLE	ED EVA	PORA	TIVE				RDS AND				/ELS	
EVAPORATIVE			/E ORVR (g/ga			(g/gallon) @ UL			31			TEST	2DHS	2DHS RIG T		TEST BLEED CANIS		
FA	FAMILY		F1		0===			FUEL TYPE		_		test) @ UL		(g/test) @			test) @ 4K	
ннухи	R0130	AVE	GAS	OLINE -		0.2		*			ERT STD		CERT *		STD *	CERT *	STD *	
				LEADED														

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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: 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	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE				
HYUNDAI	SANTA FE SPORT AWD	PC	2.4	SA6	HHYXR0130AVE	1	F	*				
HYUNDAI	SANTA FE SPORT FWD	PC	2.4	SA6	HHYXR0130AVE	1	F	*				