#### California Environmental Protection Agency

# **⊘** Air Resources Board

HYUNDAI MOTOR COMPANY Executive Order: A-254-0326 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 1 of 4

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 II	NFO	RMATION							
MODI YEA	1	EST G	ROUP	VEHICLE CLASS(ES)					FUE	FUEL CATEGORY			FUEL TYPE			
201	7 H	OVXYH	3.31XF			PC					SIN	GLE FUEL E	GASOLINE			
	USEFU	L LIFE	(miles)		1	EHICLE EMISS	ION (	CAT	EGORY		IN	ITERIM / IN	Έ	RMEDIA	TE IN-USE STD	
EXI	H/ORVR		EVAP			FTP		S	SFTP			FTP			SFTP	
1.	20000		150000		1	LEV2 ULEV	I		2 SFTP ANDARD			*		*		
SPI	ECIAL FI	EATUF		IAUS <sup>T</sup>		SSION CONTRO	L		ОВГ	D S1	TAT	JS		ENGINE	DISPLACEMENT (L)	
1		2WU	-TWC, TW	C, 21	HO2S (	2), DFI			FULL		AL	L MODELS				
*				*					PARTIAL			*		3.3		
*	*							PA	ARTIAL WIT	ТН	*					
			EV	APOR	RATIVE	& REFUELING	(EVA	P/O	RVR) FAM	/ILY	INF	ORMATION				
EV	AP / OR\	/R FAI	VILY	EVAP	ORAT	TIVE STD CATE	SORY	RY EVAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES					
	HHYXR0:	1351X	E			LEV 2				P	С				*	
						EMISSION C	REDI	ΓINI	FORMATIC	NC						
	A	ALLOW	ANCE FO	R TES	ST GR	OUP			OG CREDIT			NMOG CR			OPTIONAL EXH. STD FOR WORK	
BAS	ELINE P	ZEV	AT	PZEV		TZEV	N	JN-F	ZEV ZERO	U-E	VAP	DC	K		TRUCKS	
	*			*		*			N	и и и				N		
					NIV	IOG AND FLEET	AVE	RAC	GE INFORM	MAT	TION					
NMOG RAF	NIMOGANIMAGA			MDV	G+NOX FLEET STD DV (10001-14000 GVWR) (g/mi)											
*	*		1.04		*	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 1577

day of January 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	)
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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**

- F											
			NMOG (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		M mi)
		CERT.	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	GASOLINE - TIER 2 UNLEADED	0.030	0.040	0.8	1.7	0.00	0.05	*	8	*	*
FTP@UL	GASOLINE - TIER 2 UNLEADED	0.034	0.055	1.2	2.1	0.01	0.07	*	11	*	0.01
50°F @4K	GASOLINE - TIER 2 UNLEADED	0.037	0.080	0.3	1.7	0.00	0.05	* '	16		

All the state of the state of	FUEL TYPE	NOx	(g/mi)	CO (g/mi)		
	FOEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	GASOLINE - TIER 2 UNLEADED	0.01	0.07			
HWFET @ UL	GASOLINE - TIER 2 UNLEADED	0.02	0.09			
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE			1.0	10.0	

## SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

- 1 - 2 °				US06		SC03	3	CON	POSITE	
	FUEL TYPE		NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMHC+NOx (g/mi)	CO (g/mi)	NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	GASOLINE - TIER 2 UNLEADED	CERT	0.05	1.3		0.02	0.1			
<b>e</b>		STD	0.14	8.0		0.20	2.7			
		CERT	*	*	*	*	*	0.039	*	*
@ UL	GASOLINE - TIER 2 UNLEADED	STD	*	*	*	*	*	0.103	*	*
		BJN	No. 1					0.130	- # 1-	

## WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE						
EVAPORATIVE FAMILY	FUEL TYPE	3DHS (g/test) @ UL			2DI	HS (g/test) @	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
HHYXR01351XE	GASOLINE - CA PHASE 2	0.37	0.50	*	0.31	0.65	*	0.01	0 05

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ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS												
				FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY	ORVR (g/gailon) @ UL			FUEL TYPE	3DHS R (g/test	IG TEST ) @ UL		IG TEST ) @ UL	BLEED CANISTER TEST (g/test) @ 4K			
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
HHYXR01351XE	GASOLINE - TIER 2 UNLEADED	0.02	0.20	*	*	*	*	*	*	*		

: 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
HYUNDAI	SANTA FE AWD	PC	3.3	SA6	HHYXR01351XE	1	F	*
HYUNDAI	SANTA FE FWD	PC	3.3	SA6	HHYXR01351XE	1	F	*
HYUNDAI	SANTA FE ULTIMATE AWD	PC	3.3	SA6	HHYXR01351XE	1	F	*
HYUNDAI	SANTA FE ULTIMATE FWD	PC	3.3	SA6	HHYXR01351XE	1	F	*