California Environmental Protection Agency

OP Air Resources Board

VOLKSWAGEN GROUP OF AMERICA, INC. Executive Order: A-413-0075

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	FORMAT	ION						
MODE		EST G	ROUP	VEH	ICLE CLASS(E	S)		FUEL C	ATE	GORY	FUEL TYPE			
2017	HV	GAV02	.OAUB		PC		DED		SIN	GLE FUEL E	GASOLINE			
l	JSEFUL	LIFE	(miles)	V	EHICLE EMISS	ION C	ATEGOR	Y	IN.	TERIM / INT	ERMEDIATE IN-USE STD			
EXH	/ORVR		EVAP		FTP		SFTP			FTP		SFTP		
12	0000		150000	L	EV2 ULEV		EV 2 SF			*		*		
SPE	CIAL FE	ATUR		IAUST EMIS	SION CONTRO	L		OBD ST	ATU	IS	ENGINE	DISPLACEMENT (L)		
1	T	WC, W	R-HO2S,	HO2S, DFI	, TC, CAC		FUL	L		*				
*				*			PART	RTIAL ALL MODELS				2.0		
*				*			PARTIAI FINE			*				
		-	EV	APORATIVE	& REFUELING	(EVA	P/ORVR)	FAMILY	INF	ORMATION				
EVA	P / ORV	R FAN	MILY	EVAPORAT	IVE STD CATE	GORY		AP EMIS			SPECIA	L FEATURES		
н	VGAR01	40AA	C		LEV 2			P	С			*		
****	-				EMISSION C	REDIT	INFORM	ATION						
	А	LLOW	ANCE FO	R TEST GR	OUP		NMOG CR			NMOG CRE		OPTIONAL EXH		
BASE	LINE P	ZEV	АТ	PZEV	TZEV	NC	N-PZEV Z	DOR DOR				TRUCKS		
	*			*	*		N N				N			
				NM	OG AND FLEE	TAVE	RAGE IN	FORMAT	ION					
NMOG RAF	CH4 RAF	NMC	FTP G/NMHC RATIO	HCHO/NMH RATIO	PC+LDT ((0-3750 LVW) LDT (3				LVW-8500	MDV	S+NOX FLEET STD DV (10001-14000 GVWR) (g/mi)		
*	*		1.04	0.03	C	.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:

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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], 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 August 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			A / !!!!!	
EARVIEL EMISSION	I STANDADDE ANI	D CERTIFICATION LEVEL	C (LID HIMELI	EUOF SUOFI
EVUMOS I EINISSION	I O I ANDARDO ANI	D OFFILITION HOW FEAT	OLLIE, HAALEI.	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

FUEL TYPE

		NMOG (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	GASOLINE - TIER 2 UNLEADED	0.0251	0.040	0.73	1.7	0.036	0.05	0.8	8	*	*
FTP@UL	GASOLINE - TIER 2 UNLEADED	0.0326	0.055	0.91	2.1	0.044	0.07	1.0	11	*	0.01
50°F @4K	GASOLINE - TIER 2 UNLEADED	0.0643	0.080	0.78	1.7	0.015	0.05	1.9	16		

		NOx	(g/mi)	CO (g/mi)		
1	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	GASOLINE - TIER 2 UNLEADED	0.011	0.07	《国家的 集》。		
HWFET @ UL	GASOLINE - TIER 2 UNLEADED	0.019	0.09	eraturbulu binasingan		
20°F @ 50K	GASOLINE-COLD CO HIGH OCTANE	April 1 - April 2000		2.28	10.0	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

1700				US06		SC0:	3	COMPOSITE		
	FUEL TYPE		NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMHC+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	GASOLINE - TIER 2 UNLEADED	CERT	0.053	1.89		0.057	1.17			
0		STD	0.14	8.0	1261450	0.20	2.7		\$ HILL	HE CO
		CERT	*	*	*	*	*	0.0799	*	*
@ UL	GASOLINE - TIER 2 UNLEADED	STD	*	*	*	*	*	0.103	*	*
		BIN		ARTERIA				0.090		STATE STATE

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE	VEHICLE	EVAPORA	TIVE TESTIN	NG			
EVAPORATIVE FAMILY	FUEL TYPE	3DHS (g/test) @ UL			2DHS (g/test) @ UL			RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	
HVGAR0140AAC	GASOLINE - CA PHASE 2	0.439	0.50	*	0.455	0.65	*	0.002	0.05	

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ORVR / FUI	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		
HVGAR0140AAC	GASOLINE - TIER 2 UNLEADED	0.014	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	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
AUDI	A5 CABRIOLET	PC	2.0	CV8	HVGAR0140AAC	1	P	*
AUDI	A5 QUATTRO	PC	2.0	М6	HVGAR0140AAC	1	P	*