California Environmental Protection Agency

⊘ Air Resources Board

VOLKSWAGEN GROUP OF AMERICA, INC. Executive Order: A-413-0038-2
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 I	NFOF	RMATION	!					
MODE	- I T	EST G	ROUP		VEHIC	CLE CLASS(E	S)		FUEL CATEGORY			GORY	FUEL TYPE		
2016	GV	GAV0	4.0NUA			PC			DEDICA:	TED S		GLE FUEL E	G	ASOLINE	
	USEFUL	LIFE	(miles)		VE	HICLE EMISS	ON	CATE	GORY		IN.	TERIM / INT	ERMEDIA	TE IN-USE STD	
EXH	I/ORVR		EVAP	FTP				SI	FTP	$\neg \vdash$		FTP		SFTP	
12	0000		150000		LEV	72 ULEV			2 SFTP NDARD			*		*	
SPE	CIAL FE	ATUR		HAUST TEMS	EMISSI	ON CONTRO	-		ОВ	D STA	ATU	IS	ENGINE	DISPLACEMENT (L)	
1	2TWC,	2WR-	HO2S, 2H	02S, I	OFI, A	IR, 2TC, CA	'C		FULL		ALI	L MODELS			
*				*					PARTIAL			*		4.0	
*	,			*				PAI	RTIAL WI FINES	ТН		*			
			EV	APORA	ATIVE &	REFUELING	(EV	AP/O	RVR) FAN	/ILY I	INF	ORMATION			
EVA	P / ORV	RFA	MILY	EVAPO	DRATIV	E STD CATEO	SOR	ORY EVAP EMISSION STD VEHICLE CLASS				SPECIA	L FEATURES		
G	VGAR01	40NAI	Ē		I	LEV 2		PC				. *			
G	VGAR01	.55NA	3		I	LEV 2		PC				*			
G	VGAR01	55NAI	H		I	LEV 2				PC	,			*	
G	VGAR01	30EA	4		I	LEV 2				PC				*	
			····			EMISSION CF	REDI	TINF	ORMATIC	ON					
	Α	LLOW	ANCE FO	R TEST	T GROL	JP			G CREDI			NMOG CRI		OPTIONAL EXH. STD FOR WORK	
BASE	ELINE P	ZEV	АТ	PZEV		TZEV	N	ON-P	ZEV ZER	O-EV	AP	DO	R	TRUCKS	
	*			*		*			N			N		И	
					NMO	G AND FLEET	AVE	ERAG	E INFOR	MATI	ON				
NMOG RAF	RAF NMOG/NMHC RATIO PC+LD1 (0			3750 LVW) L		NMOG+NOX FLEET STI LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)		MDV	NMOG+NOX FLEET STD MDV (10001-14000 GVWR) (g/mi)						
*	*	:	1.04	0.	03	0	.093	3			0.	110		*	

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

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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], 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.

This Executive Order hereby supersedes Executive Order A-413-0038-1 dated August 17, 2015.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this

day of January 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

OB Air Resources Board

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

The state of the s											
The second		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	0.0290	0.040	0.56	1.7	0.034	0.05	0.7	8	*	*
FTP@UL	GASOLINE - TIER 2 UNLEADED	0.0333	0.055	0.78	2.1	0.038	0.07	0.9	11	*	0.01
50°F @4K	GASOLINE - TIER 2 UNLEADED	0.0708	0.080	1.12	1.7	0.044	0.05	2	16		

	FUEL TYPE	NOx	(g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	GASOLINE - TIER 2 UNLEADED	0.005	0.07			
HWFET @ UL	GASOLINE - TIER 2 UNLEADED	0.009	0.09			
20°F @ 50K	GASOLINE-COLD CO HIGH OCTANE			2.13	10.0	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

		A		US06		SC03	3	CON	POSITE	
>	FUEL TYPE	11,17	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	0.033	0.33		0.010	0.29	₹ ¹		
		STD	0.14	8.0	y , '	0.20	2.7			
		CERT	*	*	*	*	*	*	*	*
@ UL	*	STD	*	*	*	*	*	*	*	*
		BIN		1 de 1	- x -			*		11/2

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			WHOLE						
EVAPORATIVE FAMILY	FUEL TYPE	3DHS	S (g/test) (@ UL	2DI	HS (g/test) @	UL	RL (g/m	i) @ UL
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
GVGAR0130EAN	GASOLINE - TIER 2 UNLEADED	0.430	0.50	*	0.450	0.65	*	0.000	0.05
GVGAR0140NAE	GASOLINE - TIER 2 UNLEADED	0.415	0.50	*	0.405	0.65	*	0.001	0.05
GVGAR0155NAG	GASOLINE - CA PHASE 2	0.444	0.50	*	*	*	*	0.000	0.05
GVGAR0155NAG	GASOLINE - TIER 2 UNLEADED	*	*	*	0.450	0.65	*	*	*
GVGAR0155NAH	GASOLINE - CA PHASE 2	0.444	0.50	*	*	*	* .	0.000	0.05
GVGAR0155NAH	GASOLINE - TIER 2 UNLEADED	*	*	*	0.450	0.65	*	*	*

ORVR / FU	EL ONLY / CA	NISTER	BLEED	EVAPORATIVE	EMISSION	STANDA	RDS AND	CERTIFIC	ATION LEV	ELS		
				FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY	ORVR (g/g	gallon) @	D UL	FUEL TYPE		IG TEST) @ UL		IG TEST	BLEED CANISTER TEST (g/test) @ 4			
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
GVGAR0140NAE	GASOLINE - TIER 2 UNLEADED	0.039	0.20	*	*	*	*	*	*	*		
GVGAR0155NAG	GASOLINE - TIER 2 UNLEADED	0.037	0.20	*	*	*	*	*	*	*		
GVGAR0155NAH	GASOLINE - TIER 2 UNLEADED	0.037	0.20	*	*	*	*	*	*	*		
GVGAR0130EAN	GASOLINE - TIER 2 UNLEADED	0.011	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; GWWR: 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

2016 MODEL YEAR: VEHICLE MODELS INFORMATION

	2016 MODI	EL YEAR	: VEHIC	PE MOD	ELS INFORI	VIA I	IUN	
MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
AUDI	A8	PC	4.0	SA8	GVGAR0155NAH	1	F	*
AUDI	A8L	PC	4.0	SA8	GVGAR0155NAH	1	F	*
AUDI	RS7	PC	4.0	SA8	GVGAR0140NAE	1	F	*
AUDI	RS7 PERFORMANCE	PC	4.0	SA8	GVGAR0140NAE	1	F	*
AUDI	86	PC	4.0	AMS7	GVGAR0140NAE	1	F	*
AUDI	S7	PC	4.0	AMS7	GVGAR0140NAE	1	F	*
AUDI	S8	PC	4.0	SA8	GVGAR0155NAG	1	F	*
AUDI	S8 PLUS	PC	4.0	SA8	GVGAR0155NAG	1	F	*
BENTLEY	CONTINENTAL GT V8	PC	4.0	SA8	GVGAR0130EAN	1	F	*
BENTLEY	CONTINENTAL GT V8 CONVERTIBLE	PC	4.0	SA8	GVGAR0130EAN	1	F	*
BENTLEY	CONTINENTAL GT V8 S	PC	4.0	SA8	GVGAR0130EAN	1	F	*
BENTLEY	CONTINENTAL GT V8 S CONVERTIBLE	PC	4.0	SA8	GVGAR0130EAN	1	F	*
BENTLEY	FLYING SPUR V8	PC	4.0	SA8	GVGAR0130EAN	1	F	*