### California Environmental Protection Agency

## **⊘** Air Resources Board

VOLKSWAGEN GROUP OF AMERICA, INC. Executive Order: A-413-0063

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.

MODE	L .															
	₹	TEST G	ROUP		VEH	IICLE	CLASS(E	S)		FUEL C	ATE	GORY		FU	EL TYPE	
2017	17 HVGAT03.02		TUAO. E		LDT4					SINGLE FUEL EHICLE		GASOLINE				
1	USEFL	JL LIFE	(miles)		V	'EHIC	LE EMISS	ION (	ATE	GORY	iN	ITERIM / IN	TERMEDIATE IN-USE STD			
EXH	I/ORVF	2	EVAP			FT	Р		SF	TP		FTP	SFTP			
12	20000		150000		L	EV2	ULEV	I		SFTP DARD		*			*	
SPE	CIAL F	EATUR		HAUS TEMS		SION	CONTRO	L		OBD S	TAT	JS	ENG	SINE	DISPLACEMENT (L)	
1	2TWC	, 2WR-	HO2S, 2	HO2S,		SFI,	AIR, SC	,		FULL		*				
*				*					F	PARTIAL	AL *			3.0		
*				*	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				PAF	RTIAL WITH FINES		*				
			E,	/APOF	RATIVE	& R	EFUELING	(EVA	P/OF	RVR) FAMILY	/ INF	ORMATION	ı			
EVA	P / OR	VR FA	MLY	EVAF	PORAT	IVE S	STD CATEGORY EVAP EMISSION VEHICLE CLAS			SPE	ECIA	L FEATURES				
H	IVGAR	155AA	4			LEV	7 2			LDT4				*		
			·			ΕN	MISSION CI	REDI	TINF	ORMATION						
		ALLOW	ANCE F	OR TE	ST GR	OUP			NMOG CREDIT FOR NMOG CREDIT FOR ST			OPTIONAL EXH. STD FOR WORK				
BASE	ELINE	PZEV	ΑT	PZEV	,		TZEV	N	JN-P	ZEV ZERO-E	VAP	, Di	JK		TRUCKS	
	*			*			*			N		1	Ŋ		N	
					NM	OG A	ND FLEET	AVE	RAG	E INFORMA	TION	l .				
NMOG	MOG RAF CH4 RAF FTP NMOG/NMHC RATIO HCHO/NMH			1 -		NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)		LC	NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)							
*		*		1.	04		0.	030			0.0	86	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.

California Environmental Protection Agency

**⊘** Air Resources Board

VOLKSWAGEN GROUP OF AMERICA, INC. Executive Order: A-413-0063

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 2 of 4

#### 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], 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).

### BE IT FURTHER RESOLVED:

Vehicles certified under this Executive Order shall not be introduced into commerce before January 2, 2016.

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 December 2015.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

VOLKSWAGEN GROUP OF AMERICA, INC. Executive Order: A-413-0063

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 3 of 4

# ATTACHMENT

## EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

	EXHAUS	T EMISSIO	N STANDA	RDS AND	CERTIF	CATION L	EVELS (F	TP, HWFE	T, 50°F, 2	0°F)			
	FUEL TYPE	monoxide; adjustmen ORVR [g l	NOx: oxid t factor; 2E HC/gallon o	es of nitrog HS/3DHS dispensed]	gen; HCH [g HC/tes : on-board	O: formalde st]: 2/3 days d refueling v	gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon or formaldehyde; PM: particulate matter; RAF: reactivity or 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; refueling vapor recovery; g: gram; mg: milligram; mi: mile; ederal test procedure; SFTP: supplemental FTP						
		NMC (g/n		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	0.0175	0.040	0.60	1.7	0.030	0.05	0.5	8	*	*		
FTP@UL	GASOLINE - TIER 2 UNLEADED	0.0215	0.055	0.86	2.1	0.030	0.07	0.6	11	0.000	0.01		
50°F @4K	GASOLINE - TIER 2	0.0407	0.080	0.57	1.7	0.024	0.05	0.5	16	XIII	As .		

ABALL TILLIA	FUEL TYPE	NOx	(g/mi)	CO (g/mi)		
The second secon	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	GASOLINE - TIER 2 UNLEADED	0.006	0.07			
HWFET @ UL	GASOLINE - TIER 2 UNLEADED	0.006	0.09			
20°F @ 50K	GASOLINE-COLD CO HIGH OCTANE			1.15	12.5	

SFTP EXHAUST EMISSION STANDARDS	AND CERTIFICATION LEVELS	
11806	6003	

				US06		SC03	3	COMPOSITE		
	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)
	GASOLINE	CERT	0.042	0.62		0.037	0.78	-	£	2.4
@ 4K	- TIER 2 UNLEADED	STD	0.60	11.8		0.44	4.0	- 1 1	- F	K
		CERT	*	*	*	*	*	*	*	*
@ UL	*	STD	*	*	*	*	*	*	*	*
		BIN		D				*	7 3	

## WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE						
EVAPORATIVE	FUEL TYPE	3DHS	S (g/test) (	@ UL	2Dł	HS (g/test) @	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
HVGAR0155AAM	GASOLINE - TIER 2 UNLEADED	0.733	0.90	*	0.464	1.15	*	0.001	0.05

VOLKSWAGEN GROUP OF AMERICA, INC. Executive Order: A-413-0063

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 4 of 4

## @ Air Resources Board

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		
HVGAR0155AAM	GASOLINE - TIER 2 UNLEADED	0.054	0.20	*	*	*	*	*	*	*		

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
AUDI	Q7	LDT4	3.0	SA8	HVGAR0155AAM	1	P	*