| A | CALIFOR AIR RESOURCES | NIA BOARD |
|-----------|--------------------------|--------------|
| 11/ IN IN | AIK KESVUNGES | P CUINE |

Pursuant to the authority vested in California 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-19-095;

IT IS ORDERED AND RESOLVED: That 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 GROUP INFORMATION | | | | | | | | | | | | |
|-------------------------------|--|---|--|---|--|--|---|---|---|--|--|--|
| те | ST GROUP | | VEHICLE CLASS(ES) | | | | FUEL CATEGORY | | | FUEL TYPE | | |
| | AV02.0A7M | | | PC | | HYBRID ELECTRIC VEHICLE | | | - | GASOLINE | | |
| | | | | | | | ORY | TER | ERMEDIATE IN-USE STD | | | |
| | | | | | | | | | | SFTP | | |
| 0000 | | | LEV3 | ULEV70 | LEV | 3 CO1 | APOSITE | TE PM | | PM | | |
| CIAL FE | ATURES & EX | HAUS | T EMISSIO | N CONTRO | | | OBD S | OBD STATUS | | ENGINE DISPLACEMENT (L) | | |
| TW | C, WR-HO2S, | но2 | S, DFI, T | C, CAC | Contraction of the local division of the loc | | FULL | * | 語の記書と言 | | | |
| | | * | | | Provincial and | P/ | ARTIAL | ALL MODELS | | 2.0 | | |
| * * | | | | | | | | * | のないのである | | | |
| | E | /APO | RATIVE & I | REFUELING | (EVA | P/OR | /R) FAMIL | Y INFORMATIO | N | | | |
| P / ORV | R FAMILY | EVA | PORATIVE | STD CATE | GORY | | | | | SPECIAL FEATURES | | |
| VGAR01 | 50NCS | L | EV 3 OPTI | ON2 WITH | FEL | | * | | | | | |
| | | | E | MISSION C | REDI | r INFC | RMATION | l | | | | |
| CREDIT FOR EXTENDED 7ERO-EVAP | | | | | | | -PZEV NMOG CREDIT FOR DO | | | OPTIONAL EXH. STD FOR WORK TRUCKS | | |
| | N | | | N | | N N | | | | | | |
| | | ملسح | NMOG | AND FLEE | T AVE | RAGE | | ATION | | | | |
| CH4 RAF | FTP NMOG/NMH RATIO | нс | HO/NMHC RATIO | O/NMHC PC+LDT (0-3750 L | | | | r (3751 LVW-850 | 00 |) MDV (10,001-14,000 | | |
| * | 1.10 | | 0.03 | | | | | 0.074 | | * | | |
| | IE IVG ISEFUL ORVR D000 CIAL FE/ TW P / ORVI JVGAR01 IOG+NO EDIT FC WAR CH4 RAF | IEST GROUP IVGAV02.0A7M JSEFUL LIFE (miles) ORVR EVAP 0000 150000 CIAL FEATURES & EX SYS TWC, WR-H02S, TWC, WR-H02S, P / ORVR FAMILY VGAR0150NCS OG+NOX FLEET AVE. EDIT FOR EXTENDED WARRANTY N CH4 RAF MMOG/NMH0 RATIO * 1.10 | IVGAV02.0A7M JSEFUL LIFE (miles) ORVR EVAP 0000 150000 CIAL FEATURES & EXHAUS SYSTEMS TWC, WR-H02S, H02 * * EVAPO P / ORVR FAMILY EVAPO NVGAR0150NCS LUGG+NOX FLEET AVE. EDIT FOR EXTENDED WARRANTY N CH4 RAF FTP NMOG/NMHC RATIO * 1.10 | IEST GROUP VEHICL LVGAV02.0A7M JSEFUL LIFE (miles) VEHI ORVR EVAP F 0000 150000 LEV3 CIAL FEATURES & EXHAUST EMISSIO SYSTEMS TWC, WR-H02S, H02S, DFI, T TWC, WR-H02S, H02S, DFI, T * VGAR0150NCS LEV 3 OPTI VGAR0150NCS LEV 3 OPTI IOG+NOX FLEET AVE. EDIT FOR EXTENDED WARRANTY NMOG CR 2 N NMOG CH4 RAF FTP NMOG/NMHC RATIO HCHO/NMHC RATIO * 1.10 0.03 | TEST GROUP VEHICLE CLASS(EI LVGAV02.0A7M PC JSEFUL LIFE (miles) VEHICLE EMISS ORVR EVAP FTP 0000 150000 LEV3 ULEV70 CIAL FEATURES & EXHAUST EMISSION CONTROSYSTEMS TWC, WR-H02S, H02S, DFI, TC, CAC * * EVAPORATIVE & REFUELING P / ORVR FAMILY EVAPORATIVE & REFUELING JVGAR0150NCS LEV 3 OPTION2 WITH EDIT FOR EXTENDED NMOG CREDIT FOR N VARRANTY N N NMOG AND FLEE CH4 FTP CH4 FTP * 1.10 0.03 | TEST GROUP VEHICLE CLASS(ES) LVGAV02.0A7M PC JSEFUL LIFE (miles) VEHICLE EMISSION CO ORVR EVAP FTP 0000 150000 LEV3 ULEV70 LEV CIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS TWC, WR-H02S, H02S, DFI, TC, CAC * TWC, WR-H02S, H02S, DFI, TC, CAC * * EVAPORATIVE & REFUELING (EVA * VGAR0150NCS LEV 3 OPTION2 WITH FEL OG+NOX FLEET AVE. EDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-P ZERO-EVAP N NMOG AND FLEET AVE. EDIT FOR EXTENDED WARRANTY NMOG AND FLEET AVE. EDIT FOR EXTENDED WARRANTY N NMOG AND FLEET AVE. EDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-P ZERO-EVAP N NMOG AND FLEET AVE. EDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-P ZERO-EVAP | TEST GROUP VEHICLE CLASS(ES) LVGAV02.0A7M PC JSEFUL LIFE (miles) VEHICLE EMISSION CATEG ORVR EVAP D000 150000 LEV3 ULEV70 LEV 3 CON CIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS STWC, WR-H02S, H02S, DFI, TC, CAC TWC, WR-H02S, H02S, DFI, TC, CAC * P/ * EVAPORATIVE & REFUELING (EVAP/OR) VUGAR0150NCS LEV 3 OPTION2 WITH FEL EMISSION CREDIT INFO NMOG CREDIT FOR NON-PZEV ZERO-EVAP N NMOG AND FLEET AVERAGE CH4 RAF FTP NMOG/NMHC RATIO NMOG+NOX FLEET S PC+LDT (0-3750 LVV (g/mi) * 1.10 0.03 0.065 | TEST GROUP VEHICLE CLASS(ES) FUEL OF LVGAV02.0A7M PC HYBRID VE JSEFUL LIFE (miles) VEHICLE EMISSION CATEGORY VE ORVR EVAP FTP SFTP 0000 150000 LEV3 ULEV70 LEV3 OBD S CIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS OBD S OBD S TWC, WR-H02S, H02S, DFI, TC, CAC FULL PARTIAL VENDORATIVE & REFUELING (EVAP/ORVR) FAMIL PARTIAL WITH FINES EVAPORATIVE & REFUELING (EVAP/ORVR) FAMIL PARTIAL WITH FINES VGAR0150NCS LEV 3 OPTION2 WITH FEL EVAP EM VEHICL VGAR0150NCS LEV 3 OPTION2 WITH FEL VEHICL VGAR0150NCS LEV 3 OPTION2 WITH FEL VEHICL VGAR0150NCS LEV 3 OPTION2 WITH FEL NMOG OF VGAR0150NCS LEV 3 OPTION2 WITH FEL VEHICL VGAR0150NCS LEV 3 OPTION2 WITH FEL NMOG OF VGAR0150NCS NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG OF VARRANTY NMOG AND FLEET AVEAGE INFORMATION (g/mi) NMOG RATIO 0.03 0.065 NMOG | TEST GROUP VEHICLE CLASS(ES) FUEL CATEGORY LVGAV02.0A7M PC HYBRID ELECTRIC VEHICLE JSEFUL LIFE (miles) VEHICLE EMISSION CATEGORY INTERIM / IN VEHICLE ORVR EVAP FTP SFTP 0000 150000 LEV3 ULEV70 LEV 3 COMPOSITE FTP CIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS OBD STATUS OBD STATUS TWC, WR-H02S, H02S, DFI, TC, CAC FULL * * * PARTIAL ALL MODELS PARTIAL ALL MODELS PARTIAL ALL MODELS VGAR0150NCS LEV 3 OPTION2 WITH FEL FC VGAR0150NCS LEV 3 OPTION2 WITH FEL FC VGAR0150NCS LEV 3 OPTION2 WITH FEL FC COG+NOX FLEET AVE. EDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOC WARRANTY N NMOG AND FLEET AVERAGE INFORMATION NMOG AND FLEET AVERAGE INFORMATION CH4 RAF FTP NMOG/NMHC RATIO NCG3 0.065 0.074 | TEST GROUP VEHICLE CLASS(ES) FUEL CATEGORY LVGAV02.0A7M PC HYBRID ELECTRIC VEHICLE INTERIM / INTER ISEFUL LIFE (miles) VEHICLE EMISSION CATEGORY INTERIM / INTER ORVR EVAP FTP SFTP FTP 0000 150000 LEV3 ULEV70 LEV 3 COMPOSITE PM CIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS OBD STATUS PM TWC, WR-H02S, H02S, DFI, TC, CAC FULL * * PARTIAL ALL MODELS PARTIAL ALL MODELS VGAR0150NCS LEV 3 OPTION2 WITH FEL PC FC INTERIM / INTER VGAR0150NCS LEV 3 OPTION2 WITH FEL FC EMISSION CREDIT INFORMATION VGAR0150NCS LEV 3 OPTION2 WITH FEL FC EMISSION CREDIT INFORMATION NGG CREDIT FOR NON-PZEV WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR N NMOG AND FLEET AVERAGE INFORMATION NMOG+NOX FLEET STD LDT (3751 LUW-3500 (g/mi) NMOG+NOX FLEET STD LDT (3751 LUW-3500 (g/mi) NMOG+NOX FLEET STD LDT (3751 LUW-3500 | | |

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. (As applicable, heavy-duty vehicles (HDV) over 14,000 pounds in GVWR listed in this Executive Order are certified to the requirements in 13 CCR Section 1961.2 applicable to MDV pursuant to 13 CCR Section 1956.8(c)(3) or 13 CCR Section 1956.8(h)(5), as applicable.)



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 fleet average compliance requirement for NMOG+NOx or Vehicle Equivalent Credit (13 CCR Sections 1961.2(b)(1), 1961.2(b)(3), or 1961.2(c) (3), and the incorporated test procedures, as applicable), or Greenhouse Gas Emissions (13 CCR Section 1961.3, or 17 CCR Section 95663, and the incorporated test procedures, as applicable), for PC, LDT, MDPV or MDV 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).

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 18^{4} day of October 2019.

Allen Lyons, Chief Emissions Certification and Compliance Division



FUEL TYPE

VOLKSWAGEN GROUP OF AMERICA, INC. Executive Order: A-413-0157 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 3 of 4

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°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

| | | / / / | | | | | | | | | | | | | | | |
|--|---------|-----------------------------------|---------------|----------------------------|-----------------|------------|--------------|-------------------|-----|-------------------------------|----------------|--------------|------------------------|--------------------|---------------------|----------------------------------|---------------|
| | | | | | OG+NC |) x | | со | | | IOx. | HCH | | | | PN | - |
| | | | _ | | (g/mi) | | | g/mi) | | | /mi) | | mg/m | | (g/mi) | | |
| | | | | CERT | 5 | TD | CERT | | | CERT | STD | CERT | <u> </u> | STD * | CERT * | | STD |
| FTP@50 | ĸ | * | | * | | * | * | * | | * | * | * | | * | * | | * |
| FTP@U | | SOLIN ER3 E PREM | | 0.043 | 1 0 | .070 | 0.18 | 1.7 | | * | * | 0.4 | | 4 | 0.00 | .0010 0.00 | |
| 50°F @4 | | SOLIN ER3 E PREM | 1990 C | 0.028 | 8 0 | .140 | 0.08 | 1.7 | | * | * | 0.2 | | 16 | | | |
| | | | | | | | - | 211 | | N | MOG+NC |)x (g/mi) | | CO (g/mi) | | | |
| A service | | | | | FUE | L TYPI | = | | | CI | ERT | STD | | CER | Т | | STD |
| HWFET | r @ 50k | | | | | * | | | | | * | * | | | | | |
| | T @ UL | | | GASOI | INE-T | IER3 | E10 PR | REM | | 0. | 0231 | 0.070 | 語の思い | | | | |
| | @ 50K | | | GASOI | INE-T | IER3 | E10 PF | REM | | | | | | 0.3 | 3 10.0 | | |
| | | 1 | S | FTP E | XHAU | ST EM | ISSION | STANDA | RDS | AND | CERTIFIC | ATION LE | EVEL | S | | | |
| | | | | TAX as | | | JS06 | | | | SC03 | | | COMPOSITE | | | |
| | FUEL | TYPE | | NN | IOG+N (g/mi) | Ox | CO (g/mi) | Pl (mg | | 1 | G+NOx J/mi) | CO (g/mi) | | NMOG+NO: (g/mi) | | CO /mi) | PM (mg/mi) |
| 0.11 | | * (| | CERT * | | | * | | | * | * | * | | | | | |
| @ 4K | | | STD | | * | | * | | | L Labora D Labora D | * | * | | | | | |
| | | CE | | г | * | | * | 1. | . 0 | | * | * | 0 | 0.0495 | | 0.30 | |
| @ UL | TIER. | ASOLINE- CIER3 E10 S PREM B | | Contraction and the second | | * | | * 6 | | | * | * | | 0.083 | | .2 | * |
| | | | | | | | | | | | | | 0 | | .090 | | |
| | | W | | | LE EV | APORA | TIVE E | MISSION | STA | NDAR | DS AND | CERTIFIC | ATIO | N LEVE | LS | | |
| | | | | | T | | | | | | IVE TES | | | | | | |
| EVAPORATIVE | | | | TYPE 3DHS | | | g/test) @ UL | | | 2DHS (g/test) @ | |) @ UL | @ UL | | RL (g/n | | UL |
| FAMILY | | | | STD | FEL CE | | RT STD | | FE | FEL | | CERT | | STD | | | |
| TTTCADO1 FONCE | | GASOL TIER3 | E10 | 0.2 | | 0.300 0.30 | | | 155 | 0.300 | | 0.300 0.0 | | 00 0.05 | | | |
| ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEV | | | | | | | | | | | ELS | | | | | | |
| FUEL ONLY EVAP & CANISTER BLEED | | | | | | | | | | | | | | | | | |
| EVAPORATIVE FAMILY | | VE | ORVR (g/gallo | | allon) (| . – | | | | DHS RIG TEST (g/test) @ UL | | | 2DHS RIG (g/test) @ | | 1 - Co 201 - Co 201 | EED CANISTER ST (g/test) @ 4K | |
| | | F | UEL T | YPE | CERT | STD | 1 | | C | ERT STD | | CERT | | STD | CEF | ٦T | STD |
| LVGA | R0150N | G | ASOLI | NE- | 0.039 | 0.20 | | COLINE- R3 E10 | | * | * | * | * * | | 0.016 0.02 | | 0.020 |

| CALLEORNIA VOLKSWAGEN GROUP SEAMEDICA INC. VOLKSWAGEN GROUP Medium-Duty Vehicles | AIR RESOURCES BOARD | OF AMERICA, INC. | Page 4 of 4 |
|--|-----------------------------------|------------------|-------------|
| | CALIFORNIA AIR RESOURCES BOARD | | |

| EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES) | | | | | | | | | |
|---|------------------|------|------|--|--|--|--|--|--|
| EVAPORATIVE FAMILY | LEAK FAMILY | CERT | STD | | | | | | |
| LVGAR0150NCS | LVGAR0150NCS-001 | * | 0.02 | | | | | | |

*: 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; 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; HP/LP EGR: High/Low Pressure EGR; 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; FFH: fuel fired heater; 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; a hyphen (-) between after treatment ECS indicates multiple functionalities of the after treatment device (ex. DPF-SCRC: SCR coated DPF); 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; AER: all-electric range; EAER: equivalent AER; PHEV: plug-in hybrid electric vehicle; NMOG + NOx Fleet Ave. Credit for Extended Warranty: N = no credits, Y = credits, S = credits for some/select models

| 2 | ORMATION | | | | | | | | | |
|------|--|----|-----|------|--------------|---|---|--|--|--|
| MAKE | MAKE MODEL VEH CLASS ENGINE (L) TRANS TYPE EVAPORATIVE FAMILY | | | | | | | | | |
| AUDI | A6 | PC | 2.0 | AMS7 | LVGAR0150NCS | 1 | P | | | |
| AUDI | A6 QUATTRO | PC | 2.0 | AMS7 | LVGAR0150NCS | 1 | P | | | |