

Executive Order: A-413-0185

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

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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.

| TODO STATION (L) 1 2TWC, 2WR-HO2S, 2HO2S, SFI, 2TC, 2CAC, AIR * | | | | | | | | | | | | | | |
|--|--|--|------------|----|-----------|-------------|-------|----------|---------------------------|-------------|------|---------------------|--|--|
| YEAR TEST GROUP VEHICLE CLASS(ES) FUEL CATEGORY FUEL TYPE | | | | | | | | | | | | | | |
| USEFUL LIFE (miles) EXH/ORVR EVAP FTP SFTP SFTP SFTP SFTP SFTP SFTP SFTP SFTP SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS TYSTEMS EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION EVAP / ORVR FAMILY EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY EMISSION CREDIT FOR NON-PZEV CREDIT FOR EXTENDED WARRANTY NMOG AND FLEET AVE. CREDIT FOR EXTENDED WARRANTY MOG CH4 RAF RAF RAF RAF RAF RAF RAF RAF | | | EST GROUP | | VEHIC | CLE CLASS(E | S) | | FUEL (| CATEGORY | | FUEL TYPE | | |
| STATUS | 2020 | 1020 LVGAV06.8EDP PC | | | | | | PC DEDIC | | | L | GASOLINE | | |
| EXH/ORVR | USEFUL LIFE (miles) VEHICLE EMI | | | | | | ION | CATE | GORY | INTERIM / I | NTEF | RMEDIATE IN-USE STD | | |
| SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS 1 2TWC, 2WR-H02S, 2H02S, SFI, 2TC, 2CAC, AIR * | EXH/ | ORVR | EVAP |) | | FTP | | SF | TP | | | | | |
| SYSTEMS 1 2TWC, 2WR-HO2S, 2HO2S, SFI, 2TC, 2CAC, AIR * | 150 | 0000 | 15000 | 0 | LEV: | 3 LEV160 | LEV | 3 C | OMPOSITE | * | | * | | |
| * PARTIAL ALL MODELS * PARTIAL WITH TINES EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY EVAP EMISSION STD VEHICLE CLASS LVGAR0220EAP LEV 2 EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR RON-PZEV WARRANTY NMOG CREDIT FOR EXTENDED WARRANTY NMOG AND FLEET AVERAGE INFORMATION NMOG AND FLEET AVERAGE INFORMATION NMOG CH4 RAF RAF NMOG/NMHC RATIO NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi) NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi) MOG GVWR) (g/mi) NMOG+NOX FLEET STD MDPV (g/mi) NMOG+NOX FLEET STD MDPV (g/mi) MOG GVWR) (g/mi) | | | | | | | L | | OBD S | TATUS | E | ENGINE DISPLACEMENT | | |
| * * * * * * * * * * * * * * * * * * * | 1 2 | 2TWC, 2WR-HO2S, 2HO2S, SFI, 2TC, 2CAC, AIR | | | | | | | FULL | * | | | | |
| EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY EVAP EMISSION STD VEHICLE CLASS LVGAR0220EAP LEV 2 PC * EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR POR NOW NMOG CREDIT FOR WORK TRUCKS N NMOG AND FLEET AVERAGE INFORMATION NMOG AND FLEET AVERAGE INFORMATION NMOG CH4 RAF NMOG/NMHC RATIO NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi) MOG CH4 RAF NMOG/NMHC RATIO GVWR) (g/mi) | * | | | | * | | | F | ARTIAL | ALL MODELS | | 6.8 | | |
| EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY LEV 2 PC * EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR NON-PZEV WARRANTY NMOG AND FLEET AVEAGE INFORMATION NMOG AND FLEET AVEAGE INFORMATION NMOG CH4 RAF RAF RAF RAF RAF RAF RAF RAF RAF RATIO EVAP EMISSION STD VEHICLE CLASS PC * MOG CREDIT FOR MATION NMOG CREDIT FOR NON-PZEV NMOG CREDIT FOR DOR POWER TRUCKS NMOG CREDIT FOR DOR POWER TRUCKS NMOG CREDIT FOR DOR NMOG NOR TRUCKS NMOG CREDIT FOR DOR NOR TRUCKS NMOG CREDIT FOR DOR NMOG NOR TRUCKS NMOG C | * | * * | | | | | | | | * | | | | |
| LVGAR0220EAP LEV 2 PC * EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY NMOG AND FLEET AVEAR AND FOR WORK TRUCKS NMOG AND FLEET AVEAR AND FOR WORK TRUCKS NMOG CH4 RAF RAF RAF RAF RAFIO NMOG/NMHC RATIO NMOG+NOX FLEET STD NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi) NMOG+NOX FLEET STD NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi) ROG GVWR) (g/mi) | EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION | | | | | | | | | | | | | |
| EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. STD FOR WORK TRUCKS N NMOG AND FLEET AVERAGE INFORMATION NMOG AND FLEET AVERAGE INFORMATION FTP NMOG/NMHC RAF RAF RAF RAF RAF OR OPTIONAL EXH. STD FOR WORK TRUCKS NMOG CREDIT FOR DOR FOR WORK TRUCKS N NMOG AND FLEET AVERAGE INFORMATION NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi) GVWR) (g/mi) | EVAP | P / ORVI | R FAMILY | EV | 'APORATIV | E STD CATE | SORY | | | | | SPECIAL FEATURES | | |
| NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. STD FOR WORK TRUCKS N NMOG AND FLEET AVERAGE INFORMATION OPTIONAL EXH. STD FOR WORK TRUCKS N NMOG AND FLEET AVERAGE INFORMATION OPTIONAL EXH. STD FOR WORK TRUCKS N NMOG AND FLEET AVERAGE INFORMATION OPTIONAL EXH. STD FOR WORK TRUCKS N NMOG AND FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi) GVWR) (g/mi) | LV | VGAR02 | 20EAP | | I | EV 2 | | | PC 1 | | | * | | |
| CREDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. STD FOR WORK TRUCKS N N N NMOG AND FLEET AVERAGE INFORMATION MOG CH4 RAF NMOG/NMHC RATIO NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi) NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi) | | | | | | EMISSION CF | REDIT | INFO | RMATION | | | | | |
| NMOG AND FLEET AVERAGE INFORMATION MOG CH4 RAF NMOG/NMHC RATIO HCHO/NMHC RATIO NMOG+NOX FLEET STD NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi) MOG+NOX FLEET STD NMOG+NOX FLEET STD NMOG+N | | DIT FO | R EXTENDED | | | | ON-P2 | ZEV | NMOG CREDIT FOR DOR | | | | | |
| MOG CH4 RAF NMOG/NMHC RATIO CH4 RAF NMOG/NMHC RATIO NMOG+NOX FLEET STD NMOG+NOX FLEE | | | N | | | N | | | N N | | | | | |
| RAF RAF RATIO PC+LDT (0-3750 LVW) LDT (3751 LVW-8500 GVWR) + MDPV (10,001-14,000 GVWR) (g/mi) | NMOG AND FLEET AVERAGE INFORMATION | | | | | | | | | | | | | |
| * * 1.10 * 0.00 | | | NMOG/NMHO | НС | | PC+LDT (0 | -3750 | | LVW) LDT (3751 LVW-8500 | | | MDV (10,001-14,000 | | |
| " " 1.10 * 0.065 0.074 * | * | * | 1.10 | | * | | | | | | | | | |

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.)



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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 ______ day of April 2020.

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Allen Lyons, Chief

Emissions Certification and Compliance Division



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ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

| | EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FEB. 1945) | | | | | | | | | | | | | | | | | | |
|--|---|-------|-----------------------|-------|--------------|-----------------------------------|------------|--------------|--------------|---------------|-----|-------------------------|---------------|------------------------|--------------------|-------|--------------|------------|---------------|
| | EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°F, 20°F) | | | | | | | | | | | | | | | | | | |
| | CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: no monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate r adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: sup | | | | | | | | | | | matter; R . [g HC/mi | AF:]: run | reactive ining leading | /ity | | | | |
| | | | | | | IOG+NC (g/mi) | x | | CO (g/mi) | | | NOx (g/mi) | | | HCI (mg/ | | PM (g/mi) | | |
| | | | | | CER | TS | TD | CER | RT ST | TD | CER | Т | STD | CER | | STD | CE | RT | STD |
| FTP@ | 50K | | * | | * | | * | * | , | * | * | | * | * | | * | | * | * |
| FTP@ | UL | TIE | OLIN R3 E PREM | | 0.096 | 54 0. | 160 | 0.7 | 0 4. | . 2 | * | | * | * | | 4 | 0.0 | 000 | 0.01 |
| 50°F @ | 4K | TIE | OLIN R3 E PREM | | 0.099 | 06 0. | 320 | 1.8 | 0 4. | . 2 | * | | * | * | | 30 | | | |
| | | | | | | FUE | TYP | F | | | | NMC | OG+NC | x (g/mi) | | | CO (| g/mi) | |
| | | | | | | | | | | | | CERT | CERT S | | STD | | | | |
| HWFE | T @ | 50K | | | | | * | | | | | * | | * | | | | | |
| HWFE | T @ | UL | | | GASOL | DLINE-TIER3 E10 PREM 0.0475 0.160 | | | | | | | | | | | | | |
| 20°F | 20°F @ 50K COLD C | | | LD CO | E10 | E10 PREMIUM GASOLINE (TIER3) | | | | | | | | | | 2.53 | | 1 | .0.0 |
| | | | | 5 | SFTP E | XHAUS | TEM | ISSION | STAND | ARDS | AND | CER | RTIFICA | ATION LE | VEL | .S | THE RESERVE | | |
| | | | | | | US06 | | | | | | SC03 | | | COI | MPO | SITE | | |
| | FUI | EL TY | TYPE | | | OG+NO (g/mi) | x | CO (g/mi) | | PM g/mi) | | NMOG+NOx (g/mi) | | CO (g/mi) | NMOG+NOx (g/mi) | | 1 | CO /mi) | PM (mg/mi) |
| @ 4K | | * | * CE | | - | * | | * | | | | * | | * | | | | | |
| | | S | | STD | | * | \top | * | | | | * | | * | | | | | |
| | | | CEI | | | * | | * | | * | | * | | * | * 0.0979 | | 0 | . 52 | * |
| @ UL | @ UL TIER | | LINE- 3 E10 S | | | * | | * | | * | | * | | * | * 0.083 | | .083 4.2 | | * |
| | BIN | | | | | | | | | | | | | | | 0.140 | | | |
| | WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS | | | | | | | | | | | | | | | | | | |
| | | | | | | WHOLE VEHICLE EVAPORATIVE TESTING | | | | | | | | | | | | | |
| EVAPORATIV FAMILY | | | VE FUEL T | | YPE 3DHS (g/ | | test) @ UL | | | 2DHS (g/test) | | /test) (| @ UL | | RL (g/r | | mi) @ UL | | |
| | | | | | | CERT | S | TD | FEL | CEF | ₹T | S | TD | FEL | | CERT | | STD | |
| and the same of th | | 1 | ASOLI IER3 PREN | E10 | 0.445 | 0. | 50 | * | 0.3 | 81 0.65 | | 65 | * | * | | 0.00 | | 0.05 | |



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| OPVP / ELIEL ONLY / CANICTED BY EED TWO | | | | | | | | | | | | | |
|---|----------------------------------|------|------|-----------|---------------------------------|-------------------|------|---------|--------------------------------------|-----|--|--|--|
| ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS | | | | | | | | | | | | | |
| | | | | | FUEL ONLY EVAP & CANISTER BLEED | | | | | | | | |
| EVAPORATIVE FAMILY | ORVR (g/gallon) @ UL | | | FUEL TYPE | 0 0 10 | IG TEST) @ UL | 1 | IG TEST | BLEED CANISTER TEST (g/test) @ 4K | | | | |
| | FUEL TYPE | CERT | STD | | CERT | STD | CERT | STD | CERT | STD | | | |
| LVGAR0220EAP | GASOLINE- TIER3 E10 PREM | 0.02 | 0.20 | * | * | * | * | * | * | * | | | |
| | EFFECTIVE LEAV DIAMETER CTANDARD | | | | | | | | | | | | |

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

*: 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; 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

| 2020 MODEL YEAR: VEHICLE MODELS INFORMATION | | | | | | | | | | | | |
|---|----------------|-----------|------------|------------|--------------------|------------|-----|--|--|--|--|--|
| MAKE | MODEL | VEH CLASS | ENGINE (L) | TRANS TYPE | EVAPORATIVE FAMILY | EXH ECS | OBD | | | | | |
| BENTLEY | MULSANNE | PC | 6.8 | SA8 | LVGAR0220EAP | 1 | P | | | | | |
| BENTLEY | MULSANNE SPEED | PC | 6.8 | SA8 | LVGAR0220EAP | 1 | P | | | | | |