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-14-012;

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

<table>
<thead>
<tr>
<th>MODEL YEAR</th>
<th>TEST GROUP</th>
<th>VEHICLE CLASS(ES)</th>
<th>FUEL CATEGORY</th>
<th>FUEL TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>KGXMVD.5050</td>
<td>PC</td>
<td>HYBRID ELECTRIC VEHICLE</td>
<td>GASOLINE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USEFUL LIFE (miles)</th>
<th>VEHICLE EMISSION CATEGORY</th>
<th>INTERIM / INTERMEDIATE IN-USE STD</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXH/ORVR</td>
<td>EVAP</td>
<td>FTP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SFTP</td>
</tr>
<tr>
<td>150000</td>
<td>LEV3</td>
<td>ULV70</td>
</tr>
<tr>
<td>150000</td>
<td>COMPOSITE</td>
<td></td>
</tr>
</tbody>
</table>

**SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS**

1. DFI, TWC, HO2S (2)

2. PARTIAL WITH FINES

**OBD STATUS**

- FULL
- PARTIAL
- ALL MODELS

**ENGINE DISPLACEMENT (L)**

- 2.5

### EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION

<table>
<thead>
<tr>
<th>EVAP / ORVR FAMILY</th>
<th>EVAPORATIVE STD CATEGORY</th>
<th>EVAP EMISSION STD VEHICLE CLASS</th>
<th>SPECIAL FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>KGXR0120810</td>
<td>LEV 2</td>
<td>PC</td>
<td>HCT</td>
</tr>
</tbody>
</table>

### EMISSION CREDIT INFORMATION

<table>
<thead>
<tr>
<th>NMOG CREDIT FOR NON-PZEV ZERO-EVAP</th>
<th>NMOG CREDIT FOR DOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTIONAL EXH. STD FOR WORK TRUCKS</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

### NMOG AND FLEET AVERAGE INFORMATION

<table>
<thead>
<tr>
<th>NMOG RAF</th>
<th>CHA RAF</th>
<th>FTP NMOG/NMHC RATIO</th>
<th>HCHO/NMHC RATIO</th>
<th>NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/ml)</th>
<th>NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/ml)</th>
<th>NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>*</td>
<td>1.10</td>
<td>*</td>
<td>0.072</td>
<td>0.083</td>
<td>*</td>
</tr>
</tbody>
</table>

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 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 95653, 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 22 day of March 2018.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division
### ATTACHMENT

#### EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

**Exhaust Emission Standards and Certification Levels (FTP, HWFET, 50°F, 20°F)**

- **FUEL TYPE**: Gasoline, TIER 3 E10
- **Certification Standards**
  - **FTP@50K**:
    - **NMOC+NOx (g/mi)**: 0.033
    - **CO (g/mi)**: 0.070
    - **NOx (g/mi)**: 0.7
    - **HCHO (mg/mi)**: 1.7
    - **PM (g/mi)**: 4
  - **FTP@UL**: Gasoline-TIER3 E10
  - **50°F @ 4K**:
    - **NMOC+NOx (g/mi)**:
    - **CO (g/mi)**:

**SFTP Exhaust Emission Standards and Certification Levels**

- **US06**
  - **FUEL TYPE**: Gasoline-TIER3 E10
  - **Certification Standards**
    - **NMOC+NOx (g/mi)**: 0.008
    - **CO (g/mi)**: 0.070

**Whole Vehicle Evaporative Emission Standards and Certification Levels**

- **EVAPORATIVE FAMILY**: GMKR0120818
  - **FUEL TYPE**: Gasoline-TIER 2 UNLEADED
  - **3DHS (g/test) @ UL**: 0.346
  - **2DHS (g/test) @ UL**: 0.366
  - **RL (g/mi) @ UL**: 0.06

**ORVR / Fuel Only / Canister Bleed Evaporative Emission Standards and Certification Levels**

- **EVAPORATIVE FAMILY**: GMKR0120818
  - **FUEL TYPE**: Gasoline-TIER 2 UNLEADED
  - **ORVR (g/gallon) @ UL**: 0.02
  - **2DHS RIG TEST (g/test) @ 4K**: 0.05
### EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)

<table>
<thead>
<tr>
<th>EVAPORATIVE FAMILY</th>
<th>LEAK FAMILY</th>
<th>CERT</th>
<th>STD</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

*: 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#LVW; LDT4: LDT 8001-15000#GVWR, 5751-8500#LVW; MDV: medium-duty vehicle; MDV4: MDV 8501-10000#GVWR; MDV5: MDV 10001-14000#GVWR; MDPV: medium-duty 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; ADS: adsorbing TWC; HAC: HC adsorbing catalyst; WU: warm-up catalyst; NAC: NOx adsorption catalyst; SCR-U or SCR/N: selective catalytic reduction-urea/ammonia; SCR: selective catalytic reduction; CT/PT: continuous/periodic trap oxidizer; DP: diesel particulate filter; PF: PM filter for spark-ignited engine; HO2/S: heated oxygen sensor; WR: wide range/linear heated air-fuel ratio sensor; NOXS: NOx sensor; PM: PM sensor; RQ: redundant quality sensor; NH3S: ammonia sensor; EGR: exhaust gas recirculation; EGRC: EGR cooler; A/A : automatic (with lockup); M: manual transmission; SA: semi-automatic transmission; CV: continuously variable transmission; EGR: exhaust gas recirculation; SC: 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.

### 2019 MODEL YEAR: VEHICLE MODELS INFORMATION

<table>
<thead>
<tr>
<th>MAKE</th>
<th>MODEL</th>
<th>VEH CLASS</th>
<th>ENGINE (L)</th>
<th>TRANS TYPE</th>
<th>EVAPORATIVE FAMILY</th>
<th>EXH ECS</th>
<th>OBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUICK</td>
<td>LACROSSE</td>
<td>PC</td>
<td>2.5</td>
<td>A6</td>
<td>AGMXXR0120818</td>
<td>1</td>
<td>p</td>
</tr>
</tbody>
</table>