

GENERAL MOTORS CORPORATION

EXECUTIVE ORDER A-006-1155-1 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515-39516 and Executive Order G-02-003;

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.

| | | | | | | VENIOLE TVOE | | | | | | | | | | |
|---------------|----------------|--------------------------|--------------|---|----------|--|---------------|--|---|---|-------------------------------|--|--|--|--|--|
| MODEL YEAR | | TEST GROUP | | | ١ | VEHICLE TYPE | EXHAUST | EMISSION STANDA | \RD | EXHAUST/ | FUEL TYPE | | | | | |
| | | | | | | =passenger car; LDT=light-duty truck; | CATEGOR | Y (LEV=low emis | sion | EVAPORATIVE | (CNG/LNG=compressed/ | | | | | |
| | | | | | | DV=medium-duty vehicle; LVW=loaded | vehicle; | TLEV= transitional LEV | : | USEFUL LIFE | liquefied natural gas; LPG= | | | | | |
| | | | | | ١ ٧ | ehicle weight; ALVW=adjusted LVW) | ULEV=ultra | LEV; SULEV=super UL | EV) | (UL) (miles) liquefied petroleum | | | | | | |
| 200 | | | 4GMXT08.1201 | | | /IDV: 5,751-8,500 pounds ALVW | | LEV | | 120K / 120K (EVAF 3), 150K (EVAF 1, 2, 4) | Gasoline (Tier 2 Unleaded) | | | | | |
| No. | | APOR <i>a</i> MILY (E | | | | SPECIAL FEATURES & EMISSION CONTROL SYSTEM | | | | OC/TWC=oxidizing/3-way cat. ADSTWC=adsorbing TWC WU= warm-up cat. O2S/HO2S=oxygen sensor/heated O2S | | | | | | |
| 1 | 4GI | GMXR0176821 | | | 1 | SFI, 2WUTWC, 2TWC | , 2HO2S(2), (| BD (F) | AFS/HAFS=air-fuel ratio sensor/heated AFS EGR=exhaust | | | | | | | |
| 2 | 4GMXR0223841 | | | | 2 | * | | gas recirculation AIR/PAIR=secondary air injection/pulsed AIR MFI/SFI= multiport fuel injection/sequential MFI | | | | | | | | |
| 3 | 3 4GMXE0260936 | | | r | 3 | • • | | | TBI | TBI= throttle body injection TC/SC=turbo /super charger | | | | | | |
| 4 | 4GI | MXE02 | E0223842 | | | * | | CA | CAC=charge air cooler OBD (F) / (P)=full /partial on-board diagnostic prefix 2=parallel (2) suffix=series | | | | | | | |
| EVA | F | ECS | ENGIN | F | | VEHICLE VEH | ICI EC CUO | ECT TO CETE | _8 | | | | | | | |
| No. | | No. SIZE (L) | | | | VEHICLE VEHICLES SUBJECT TO SFTP MAKES & MODELS STANDARDS ARE UNDERLINED ABBREVIATIONS: * | | | | | | | | | | |
| 1 | | 1 | 8.1 | | Ch | Chevrolet: C2500 HD Silverado 2WD, K2500 HD Silverado 4WD; GMC: C2500 HD Sierra 2WD, K2500 HD Sierra 4WD | | | | | | | | | | |
| 2 | | 1 8.1 | | | Ch GN | Chevrolet: C2500 HD Silverado 2WD, K2500 HD Silverado 4WD, K3500 Silverado 4WD; GMC: C2500 HD Sierra 2WD, K2500 HD Sierra 4WD, K3500 Sierra 4WD | | | | | | | | | | |
| 3 | | 1 | 8.1 | | Ch | Chevrolet: C2500 Avalanche 2WD, K2500 Avalanche 4WD, C2500 Suburban 2WD, K2500 Suburban 4WD; GMC: C2500 Yukon XL 2WD, K2500 Yukon XL 4WD | | | | | | | | | | |
| 4 | | 1 | 8.1 | | Ch | Chevrolet: C3500 Silverado 2WD, K3500 Silverado 4WD; GMC: C3500 Sierra 2WD, K3500 Sierra 4WD | | | | | | | | | | |

The exhaust and evaporative emission standards (STD) and certification emission levels (CERT) for the listed vehicles are as follows (compliance with the 50 °F testing requirement (for TLEV, LEV, ULEV, SULEV) may have been met based on the manufacturer's submitted compliance plan in lieu of testing). Any debit in the manufacturer's "NMOG Fleet Average" (PC and LDT) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required. (For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

| | NMOG FLEET NMOG @ RAF AVERAGE [g/mi] CH4 RAF = | | | | NMOG or | CH4=methane NMOG=non-CH4 organic gas NMHC=non-CH4 hydrocarbon CO=carbon monoxide NOx=oxides of nitrogen HCHO=formaldehyde PM=particulate matter RAF=reactivity adjustment factor 2/3 D [g/test]=2/3 day diurnal+hot-soak RL [g/mi]=running loss ORVR [g/gallon dispensed]=on-board refueling vapor recovery g=gram | | | | | | | | | | | | |
|--------|---|---------|--|------|---|--|-----------|--------------|--|----------------------|-------------|----------------------------|---------------------------|-------------------------------|----------------------|----------------|-------|--|
| CER | CERT STD NMOG | | | | NMHC | diumai+h mg≖millig | ot-soak i | {L [g/mi]=r. | unning le :1000 mi | oss OR | VR [g/gailo | n dispensed] Fahrenheit | =on-board ı | refueling vap plemental fe | or recovery | g≕gram | | |
| * | | | | | CERT | [g/mi] | | CO [g/mi] | | NOx [g/mi] | | HCHO [mg/mi] | | PM [g/mi] | | Hwy NOx [g/mi] | | |
| | | | [g/mi] | | [g/mi] | 131 | CERT | STD | CER | T | STD | CERT | STD | CERT | STD | CERT | STD | |
| | | @ 50K | 0.1 | 50 | | 0.195 | 2.8 | 5.0 | 0.3 | | 0.6 | * | 22 | * | * | 0.05 | 1.2 | |
| 13 | 10.00 | @ 11r | 0.1 | 50 | * | 0.280 | 2.8 | 7.3 | 0.3 | | 0.9 | * | 32 | * | • | 0.05 | · 1.8 | |
| | @ 50 | °F & 4K | 0.12 | 21 | * | 0.390 | 1.8 | 5.0 | 0.1 | | 0.6 | * | 44 | * | * | * | • | |
| | CO [g/mi] @ 20°F & 50K | | = @ 4K (SULEV, ULEV, EV) or 50K (Tier 1, TLEV) = @ UL (Tier 1, TLEV) | | NMHC+NOx [g/mi] CO [g/mi] (composite) (composite | | | | NMHC+NOx CO [g/mi] [g/mi] [US06] [US06] | | | | NMHC+NOx [g/mi] [SC03] | | CO [g/mi] [SC03] | | | |
| 50 | | | | | CERT | STD | CERT | STD | CER | TS | TD CE | RT ST | | | CERT | STD | | |
| CERT | * | | | S | FTP @4K | + | * | * | * | * | | * | * * | • | * | + | • | |
| STD | * | | 16 | SI | FTP @UL | * | * | * | • | * | | * | * * | * | | * | | |
| @ UL - | Ė | VAPOR | ATIVE | FAM | LY 1 | EVAPORATIVE FAMILY 2 | | | | EVAPORATIVE FAMILY 3 | | | | E | EVAPORATIVE FAMILY 4 | | | |
| | 3-D | 2-0 |) | RL | ORVR | 3-D | 2-D | RL | ORVR | 3-D | 2- | D R | L ORV | R 3-D | 2-D | RL | ORVR | |
| CERT | 0.61 | 0.6 | 7 | 0.00 | 0.14 | 0.41 | 0.54 | 0.00 | 0.09 | 0.4 | 0. | 3 0.0 | 00 * | 0.41 | 0.54 | 0.00 | • | |
| STD | 1.00 | 1.2 | 5 | 0.05 | 0.20 | 1.00 | 1.25 | 0.05 | 0.20 | 3.0 | 3. | 5 0.0 |)5 * | 1.00 | 1.25 | 0.05 | * | |

BE IT FURTHER RESOLVED: That 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 Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model 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. This Executive Order hereby supersedes Executive Order A-006-1155 dated March 19, 2003.

Executed at El Monte, California on this _____ day of September 2003.

Allen Lyons, Chief

Mobile Source Operations Division