BAYERISCHE MOTOREN WERKE AG

EXECUTIVE ORDER A-008-0142 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 and 39516 and Executive Order G-45-9;

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.

| MODE YEAF | | TEST GROUP | | | VEHICLE TYPE | | | T EMISSION D CATEGORY | FUEL TYPE | | | | |
|--------------|---------------------------|----------------------------|-----|-----|--|------------------|---|---|--|--|--|--|--|
| 2002 | : | 2BMXT04.6XHP | | | 3751-5750 Pounds Adjusted Loaded Vehicle W Medium-Duty Vehicle | eight | | ssion Vehicle LEV) | Gasoline | | | | |
| No. | EVAPORATIVE FAMILY (EVAP) | | | No. | SPECIAL FEAT EMISSION CONTROL | | S) | * = not applicable | TWC = 3-way catalytic converter WUTWC = warm-up TWC ADSTWC = adsorber TWC OC = oxidation | | | | |
| 1 | 2BM | 2BMXR0160E39 | | | 2TWC, 2HC |)2S(2), SFI, AIF | R, OBD (F | catalytic converter O2S = ovygen sensor | | | | | |
| 2 | | * | | | | * | HO2S = heated O2S EGR = exhaust gas recirculation AIR = secondary air injection PAIR = pulsed AIR | | | | | | |
| 3 | | * | | | | * | MFI = multiport fuel injection SFI = sequential MFI TC/SC = turbo/super charger CAC = charge air cooler | | | | | | |
| 4 | | * | | 4 | | * | | OBD (F) / OBD (P) = on-board diagnostics; full / partial compliance (prefix) 2 = parallel (2) (suffix) = series | | | | | |
| EVAF No. | | ECS ENGINE No. SIZE (L) | | | VEHICLE MAKES & MODELS | | | T TO SFTP | | | | | |
| 1 | | 1 | 4.6 | | | | | | | | | | |
| * | | * | * | | | | | | | | | | |
| * | | * * | | | * | | | | | | | | |
| * | * * | | * * | | * | | | | | | | | |

The exhaust and evaporative emission standards (STD) and certification emission levels (CERT) for the listed vehicles are as follows. Any debit in the manufacturer's compliance plan for "NMOG Fleet Average" (passenger cars and light-duty trucks) or "Vehicle Equivalent Credit" (medium-duty vehicles) shall be equalized as required. The 50° Fahrenheit standards and CERT levels are listed below or compliance has been met based on the manufacturer's submitted compliance plan in lieu of actual testing.

| NMOG FLEET AVERAGE [g/mi] RAF = 0.94 | | | | CH4 = methane NMOG = non-CH4 organic gases NMHC = non-CH4 hydrocarbons CO = carbon monoxide NOx = oxides of nitrogen HCHO = formaldehyde PM = particulate matter RAF = reactivity adjustment factor | | | | | | | | | | | | |
|---------------------------------------|----------------------|----------|----------------------------|---|-------|--------------------------------|----------|---------------------------|-----|----------------------|--------------|------------|---------------------------|-----------|---------------------|------------|
| CERT | CERT STD | | CH4 RAF = * | | C | CO [g/mi] | | NOx [g/ | mi] | HCHO [mg/mi] | | PM [g/mi] | | | Hwy NOx [g/mi] | |
| * | * | | CERT ST | | CERT | STD | TD CERT | | STD | CERT | STD | CER | T S | Ω | CERT | STD |
| | @ | @ 50K | | 0.118 0.160 | | 4.4 | 0 | 0.1 | 0.4 | 2 | 18 | * | - | , | 0.003 | 0.8 |
| K = 1000 miles | @ 120K | | 0.13 | 4 0.230 | 1.4 | 6.4 | 0 | 0.2 | 0.6 | 4 | 27 | * | <u> </u> | | 0.01 | 1.2 |
| | @ 50°F, 4K | | 0.17 | 0.320 | 2.5 | 4.4 | 0 | 1.1 | 0.4 | 2 | 36 | • | , | | * | * |
| | [g/mi] 9°F, 50K | | g = gram mg = milligram | | 1 / | NMHC+NOx [g/mi] (composite) | | NMHC+NOx [g/mi] [US06] | | CO [g/mi] [US06] | | NMHO | NMHC+NOx [g/mi] [SC03] | | CO [g/mi] [SC03] | |
| CERT | ST | STD | | mi = mile | | STD | CE | RT | STD | CERT | STD | CER | • | rD | CERT | STD |
| 5.7 | 12. | 12.5 | | @ 4 | K * | * | | * | * * | * | * | * | , | | * | * |
| F = degree | eit | | @ 120K | | * | | * | * | * | * | * | - | , | * | * | |
| @ 120K | EVAPORATIVE FAMILY 1 | | | | EV | EVAPORATIVE FAMILY 2 | | | | EVAPORATIVE FAMILY 3 | | | EVAPORATIVE FAMILY 4 | | | |
| | 3-D | 2-D |) F | RL ORVI | ₹ 3-D | 2-D | RL. | ORVR | 3-D | 2-D | RL | ORVR | 3-D | 2-D | RL | ORVR |
| CERT | 1.6 | 1.9 | 0. | 02 0.04 | * | * | * | * | * | * | * | * | * | * | * | * |
| STD | 2.0 | 2.5 | 0. | 05 0.20 | * | * | * | * * | | * | * | * | * | * | * | * |
| 2-D, 3 - D [g | /test] = 2-c | day, 3-c | day diuri | nal and hot-s | oak | RL [g/mi] | = runnir | ng loss | 1 | ORVR [g/ga | allon of fue | l dispense | d] = on-bo | ard refue | ling vapo | r recovery |

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 (labeling), 1968.1 or 1968.1(m)(6.2) (on-board diagnostic systems; full or partial compliance), 2035 et seq. (emission control warranty), 2235 (fuel tank fill pipes and openings), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles).

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 September 2001

Mobile Source Operations Division