California Environmental Protection Agency Air Resources Board

BAYERISCHE MOTOREN WERKE AG Executive Order: A-008-0395

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

Page 1 of 4

Pursuant to the authority vested in the 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: 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	INFOR	RMATION					
MODEL YEAR	TEST GROUP VEHIC			HICLI	E CLASS(ES)		FUEL C	ATEGORY	FUEL TYPE			
2016	GBMXT04.4S63			LDT4			,	SINGLE FUEL	GASOLINE			
US	EFUL LIF	E (mile	es)	VEHI	CLE EMISSION	CATE	GORY	INTERIM / IN	TERMEDIA	TE IN-USE STD		
EXH/ORVR EVAP			/AP	F	TP	SF	SFTP FTP		SFTP			
120000 150000			0000	LEV2	ULEV LEV 2 SFTP STANDARD		O.	*	*			
SPECI	AL FEAT	URES	SYSTEMS	ISSIOI	N CONTROL		OBD ST	TATUS	ENGINE	DISPLACEMENT (L)		
1.	1 2TWC, 2WR-HO2S, 2HO2S, DFI, 2TC, 2CAC						FULL	FULL *				
*	*						PARTIAL	ALL MODELS	MODELS 4.4			
*			*			PAI	RTIAL WITH	*	6			
			EVAPORATIV	/E & R	REFUELING (EN	AP/OF	RVR) FAMILY	INFORMATION				
EVAP	ORVR F	AMILY	EVAPORA	TIVE	STD CATEGOR	RY	EVAP EMIS VEHICLE		SPECIA	L FEATURES		
GBI	MXR01701	163		LE	V 2		LDT4			*		
	_			EI	MISSION CREE	IT INF	ORMATION					
	ALLO	OWANG	E FOR TEST G	ROUP			G CREDIT FO	NMOG CR	EDIT FOR	STD FOR WORK		
BASEL	INE PZEV		AT PZEV		TZEV	EVAP			TRUCKS			
	* * *						N :			и		
			N	MOG	AND FLEET AV	ERAG	E INFORMAT	TION				
NMOG R	MOG RAF CH4 RAF FTP NMOG/NMHC RATIO		IHC	HCHO/NMHC RATIO		PC+LDT	OX FLEET STD (0-3750 LVW) (g/mi)	LDT (3	NOX FLEET STD 3751 LVW-8500 R) + MDPV (g/mi)			
*	,		1.04	1.04 *		0.093		0.110				

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.

California Environmental Protection Agency

O Air Resources Board

BAYERISCHE MOTOREN WERKE AG Executive Order: A-008-0395

New Passenger Cars, Light-Duty Trucks and

Medium-Duty Vehicles

Page 2 of 4

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 NMOG+NOx and greenhouse gas Fleet Average (PC or LDT or MDPV) or "Vehicle Equivalent Credit" (MDV) compliance plan 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

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

GBMXR0170N63

0.43

TIER 2 UNLEADED 0.90

BAYERISCHE MOTOREN WERKE AG Executive Order: A-008-0395

New Passenger Cars, Light-Duty Trucks and

Medium-Duty Vehicles

Page 3 of 4

0.03

0.05

ATTACHMENT

	EXH	HAUS	AN TE	ID EVA	PORATI	VE EMIS	SSION	STAI	VDAR	OS AN	D CERT	IFIC	CATION	EVELS			
		EX	HAUS	TEMISS	ION STAN	DARDS A	ND CEF	RTIFIC	ATION I	EVELS	(FTP, HV	VFET	r, 50°F, 20°	F)			
	F	UEL T	YPE	CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; RA adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: millig 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental									F: reactive running learn; mi:	vity oss;			
					NMOG (g/mi)		CO (g/mi)			Ox /mi)		HCI (mg/		P (g/i	M mi)		
				CERT	STD	CERT	ST	TD	CERT	STD	CER	T	STD	CERT	STD		
FTP@5	GASOLINE - OK TIER 2 UNLEADED		2	0.02	1 0.04	0 0.4	1.	.7	0.02	0.05 *			8	· *	*		
FTP@L	GASOLINE - UL TIER 2 UNLEADED		2	0.02	0.05	0.6	2.	.1	0.02	0.07	0.07 *		11	*	0.01		
50°F @	4K	TIER JNLEA	2	0.02	3 0.08	0 0.4	1.	.7	0.02	0.05	*		16				
				,	FUEL T	YPF				NOx (g/mi)			CO (g/mi			
, T									RT	STD		CERT		STD			
HWFET @ 50K GASOL			GASOLI	NE - TIER 2 UNLEADED				0.01 0.		0.07	7						
HWFE	T @ U	L		GASOLINE - TIER 2 UNLEADED					0.	.01	0.09	9		and it was			
20°F	@ 50K		G	ASOLIN	DLINE-COLD CO HIGH OCTANE							100	1.5		12.5		
				SFTP E	XHAUST	EMISSION	STANE	DARDS	AND C	ERTIFIC	CATION L	EVE					
				US06				SC03				CON					
	FUEL	. TYPE			HC+NOx (g/mi)	CO (g/mi)		PM g/mi)		mi)	CO (g/mi)	NI	(g/mi)	CO (g/mi)	PM (mg/mi		
0.414		DLINE			0.06	0.8	11.8		0.02		0.6				2 2		
@ 4K		IER 2 EADEI		D	0.60				0.	0.44							
			CEI	* *		*	*		*		*		*	*	*		
@UL * STD BIN		* ST		D	*	*		*		* •	*	_	*	*	*		
			A							1	*						
		N	HOLE	VEHIC	E EVAPO							ATIO	ON LEVEL	S			
EVAP	ORAT	IVE	ELIE	WHOLE VEHICLE EVA				EEVA					RL	RL (g/mi) @ UL			
FA	MILY		FUEL	TYPE	3DHS (g/test) @ UL		FEL	CF	RT	S (g/test	(g/test) @ UL STD FEL		CERT	Г	STD		
			GASOI	INE -	JEIN!	0.0	1 444	1		010	1		- CERT		3.5		

0.43

1.15

California Environmental Protection Agency

OP Air Resources Board

BAYERISCHE MOTOREN WERKE AG Executive Order: A-008-0395

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

Page 4 of 4

ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS												
				FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL TYPE		IG TEST) @ UL		IG TEST) @ UL	BLEED CANISTER TEST (g/test) @ 4K			
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
GBMXR0170N63	GASOLINE - TIER 2 UNLEADED	0.02	0.20	*	*	*	*	*	*	*		

t 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: 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; PZEV: partial ZEV; AT PZEV: advanced technology PZEV; 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 sparkignited 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; 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; 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; 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

2016 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
BMW	X5 M	LDT4	4.4	SA8	GBMXR0170N63	1	P	*
BMW	х6 м	LDT4	4.4	SA8	GBMXR0170N63	1	P	*