

Pursuant to the authority vested in California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: The following on-road motor vehicles with a manufacturer's GVWR over 14000 pounds are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

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	ORDER Y				ENGINE SIZES (L)	FUEL TY	CPE 1	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS ²	ECS & SPECIAL FEATURES 1	OBD		
A-4			20 LF	0 LPSIE08.8GAS		Gasoline		Otto	HDO	ECM, TWC, 2HO2S(2), SFI	OBD(P)		
	nol Vehicle	S	Will S			145	V	EHICLE DESCR	IPTION		N. III		
E	CARACITY							NE	ENGINE MODELS / CODES (rated power, in hp)				
UL (K)			MODEL VEHIC		E MAKE & MODELS		(L)						
150	60, 10	100 2020 IC But			s: CE C, CE S 8.8				8.8L-NA / 8800GAS (265)				
	A-dor Alcolonly	ORDER A-415-0022 Pr Alcohol Vehicle Only E FUEL TA CAPAC (gallon	ORDER YE A-415-0022 20 Pr Alcohol Vehicles Only E	ORDER YEAR A-415-0022 2020 LP OF Alcohol Vehicles Only E FUEL TANK CAPACITY (gallons) WEAR	ORDER YEAR ENGINE FAMILY A-415-0022 2020 LPSIE08.8GAS OF Alcohol Vehicles Only E FUEL TANK CAPACITY (gallons) YEAR VEHICLE YEAR	EXECUTIVE ORDER YEAR ENGINE FAMILY SIZES (L) A-415-0022 2020 LPSIE08.8GAS 8.8 OF Alcohol Vehicles Only E FUEL TANK CAPACITY (gallons) VEHICLE MODEL YEAR	EXECUTIVE ORDER YEAR ENGINE FAMILY SIZES (L) FUEL TO SIZES (L) FUE	EXECUTIVE ORDER PAGE ENGINE FAMILY SIZES (L) A-415-0022 2020 LPSIE08.8GAS 8.8 Gasoline OF Alcohol Vehicles Only FE FUEL TANK CAPACITY (gallons) VEHICLE MAKE & MODELS (L)	PROCEDURE A-415-0022 2020 LPSIE08.8GAS 8.8 Gasoline Otto OTTAICONOI Vehicles Only FUEL TANK CAPACITY (gallons) VEHICLE MAKE & MODELS VEHICLE MAKE & MODELS (L) FUEL TY'PE 1 & TEST PROCEDURE OTTAICONOI Vehicles VEHICLE MAKE & MODELS (L) FUEL TY'PE 1 & TEST PROCEDURE OTTAICONOI Vehicles VEHICLE MAKE & MODELS (L)	EXECUTIVE ORDER YEAR ENGINE FAMILY SIZES (L) FUEL TYPE 1 STANDARDS & TEST PROCEDURE CLASS 2 A-415-0022 2020 LPSIE08.8GAS 8.8 Gasoline Otto HDO OF Alcohol Vehicles Only FUEL TANK CAPACITY (gallons) VEHICLE MAKE & MODELS (L) ENGINE (L) ENGINE (L) (rated powers)	EXECUTIVE ORDER PART ENGINE FAMILY SIZES (L) FUEL TY'PE 1 STANDARDS & TEST PROCEDURE CLASS 2 FEATURES 3 A-415-0022 2020 LPSIE08.8GAS 8.8 Gasoline Otto HDO ECM, TWC, 2HO2S(2), SFI OTALCOHOI Vehicles OTTALCOHOI Vehicles OTTALCOHOI VEHICLE MAKE & MODELS (L) FUEL TANK CAPACITY (gallons) VEHICLE MAKE & MODELS (L) ENGINE (L) ENGINE MODELS / CODES (rated power, in hp)		

*=not applicable; GVWR=gross vehicle weight rating; 13 CCR xyz=Title 13, California Code of Regulations, Section xyz; 40 CFR 86.abc=Title 40, Code of Federal Regulations, Section 86.abc; L=liter; K=1000 miles; hp=horsepower; kw=kilowatt;

1 CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel a.k.a. BF=bi fuel; DF=dual fuel; FF=flexible fuel;

L/M/H HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto; 3 ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; WU (prefix) =warm-up catalyst; WR-HO2S=wide range oxygen sensor; DPF=diesel particulate filter; HO2S/O2S=heated/oxygen sensor; HAFS/AFS=heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SFIMFI=sequential/multi port fuel injection; DGI=direct gasoline injection; GCARB=gaseous carburetor; IDI/DDI=indirect/direct diesel injection; TC/SC=turbo/super charger; CAC=charge air cooler; EGR=exhaust gas recirculation; PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; ECM/PCM=engine/powertrain control module; EM=engine modification; 2 (prefix)=parallel; (2) (suffix)=in

EMD=engine manufacturer diagnostic system; OBD(F) / (P) / (\$)=full / partial / partial with fine / on-board diagnostic;

Following are: 1) the FTP exhaust emission standards or family emission limit(s) as applicable under 13 CCR 1956.1 (urban bus) or 13 CCR 1956.8 (other than urban bus); 2) the SET and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, SET and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.1 or 13 CCR 1956.8 are in parentheses.)

	NMHC		NOx		NMHC+NOx		CO		PM		НСНО	
	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET
STD	0.14		0.20				14.4		0.01	•	0.01	
CERT	0.08		0.04	*	*		3.7		0.001	•	0.000	•
NTE	•		•		•		*		•		•	

g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle; NTE=Not-to-Exceed emission limit; STD=standard or emission test cap, FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide: PM=particulate matter: HCHO=formaldehyde

BE IT FURTHER RESOLVED: For the listed vehicle models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1971.1 (on-board diagnostic), 13 CCR 1976(b)(1)(F) {evaporative emission standards}, 13 CCR 2035 et seq. (emission control warranty), and 13 CCR 2235 [fill pipes and openings of motor vehicle fuel tanks]. (The braces { } are for gasoline, LPG or alcohol fueled vehicles only. The brackets [] are for gasoline or alcohol fueled vehicles only.)

Vehicles certified under this Executive Order must 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

Allen Lyons, Chief

Emissions Certification and Compliance Division

day of January 2020.