California Environmental Protection Agency

@ Air Resources Board

CUMMINS ENGINE CO., INC. Executive Order: A-021-0627

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

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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 GROU	JP INFO	RMATION					
MODEL	TEST O	ROUP	VEH	ICLE CLASS(ES	5)	FUEL C	ATEGORY	FUEL TYPE			
2016	GCEXD0	6.78W	v	MDV5		DEDICATED SINGLE FUEL VEHICLE			DIESEL		
US	EFUL LIFE	(miles	s) V	EHICLE EMISSI	ON CATI	EGORY	INTERIM / IN	ERMEDIATE IN-USE STD			
EXH/O	RVR	EV	AP	FTP	S	FTP	FTP		SFTP		
1500	00	*	LE	V3 ULEV570		*		•			
SPECI	AL FEATU		EXHAUST EMIS	SION CONTROL		OBD S1	TATUS	ENGINE DISPLACEMENT			
1	C, CAC,		EGR, EGRC, OC C, RDQS, NOXS			FULL	*	6.7			
*			*			PARTIAL	*				
*			*		PA	RTIAL WITH	ALL MODELS				
			EVAPORATIVE	& REFUELING	(EVAP/O	RVR) FAMILY	INFORMATION	1.0			
EVAP	ORVR FA	MILY	EVAPORAT	IVE STD CATEG	ORY	Y EVAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES		
1	*			*		,		*			
				EMISSION CR	EDIT IN	FORMATION					
	ALLOV	VANC	E FOR TEST GR	OUP					OPTIONAL EXH STD FOR WORI TRUCKS		
BASEL	NE PZEV		AT PZEV	TZEV	NON-F						
	*		*	*		N		N	N		
			NM	OG AND FLEET	AVERA	GE INFORMAT	LION				
NMOG R	COVELCRYDVEL		FTP NMOG/NMI RATIO	I BCBO/NMB		O PC+LDT	OX FLEET STD (0-3750 LVW) (g/mi)	NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)			
*	* *				***						

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.

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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 for PC, LDT and MDV).

BE IT FURTHER RESOLVED:

The listed vehicle models are conditionally certified in accordance with 13 CCR Section 1968.2(k) (deficiency and fines provisions for certification of malfunction and diagnostic system) because, as described in ARB approval letter (Reference No. E-15-105) dated May 8, 2015, the on-board diagnostic II (OBD) system of the listed vehicle models has been determined to have eleven to twelve deficiencies for vehicles equipped with automatic transmissions, and ten deficiencies for vehicles equipped with manual transmissions.

The listed vehicle models are approved subject to the manufacturer paying a fine of \$400 per vehicle for the third through twelfth deficiencies for vehicles equipped with 68RFE automatic transmissions, \$350 per vehicle for the third through eleventh deficiencies for vehicles equipped with Aisin automatic transmissions, and \$300 per vehicle for the third through tenth deficiencies for vehicles equipped with manual transmissions in the listed test group that is produced and delivered for sale in California.

On a quarterly basis, the manufacturer shall submit to the Air Resources Board reports of the number of vehicles produced and delivered for sale in California and pay the full fine owed for that quarter pursuant to this conditional certification. Payment shall be made payable to the State Treasurer for deposit in the Air Pollution Control Fund no later than thirty (30) days after the end of each calendar quarter during the 2016 model-year production period. Failure to pay the quarterly fine, in full, in the time provided, may be cause for the Executive Officer to rescind this conditional certification, effective from the start of the quarter in question, in which case all vehicles covered under this conditional certification for that quarter and all future quarters would be deemed uncertified and subject to a civil penalty of up to \$5000 per vehicle pursuant to HSC Section 43154.

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 May 2015.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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							AT	TAC	НМІ	ENT			,				
	EXH	AUST	AND	EVAF	ORA	TIVE	EMIS	SION S	STAN	IDARE	S ANI	CERT	FICATIO	N LEVEL	S		
		EXH	AUST E	MISSIC	ON STA	NDA	RDS AN	ID CER	TIFICA	TION L	EVELS	(FTP, HW	FET, 50°F,	20°F)			
	FUE		m a O	onoxide djustme RVR [g	e; NOx: nt facto HC/gal	oxide r; 2D lon d	es of nitr HS/3DH lispense	ogen; H S [g HC d]: on-bo	CHO: /test]: pard re	formalde 2/3 days fueling	ehyde; F s diumal vapor re	M: particu +hot-soak covery; g:	C: non-CH4 late matter; ; RL [g HC/r gram; mg: r : supplement	RAF: reac ni]: runninç nilligram; n	tivity loss;		
				NMHC+NOx (g/mi)		CO (g/mi)			NOx (g/mi)			HCHO mg/mi)	1	PM (g/mi)			
				CERT	RT STD		CERT	STI	0	CERT	STD	CER	STD	CERT	STD		
FTP@5	OK	*		*	*		*	*		*	*		*	*	*		
FTP@L	IL DI	DIESEL-EPA		0.178	78 0.5	570	0.14	7.3	3	*	*	*	6	0.0002	0.06		
50°F @	4K	*		*	*		*	*		*	*	*	*				
	-				FUEL	TVD	-			NI	MHC+N	Ox (g/mi)		CO (g/n	ni)		
-311	11/10				FUEL	111	-			CE	RT	STD	CE	RT STD			
HWFE	T @ 50K	(*						*		*	* 1000		San		
HWFET @ UL DIESEL-EPA						PA			0.104		0.570	0.570					
20°F @ 50K *								5 7 71		Fishev D	Files Co.		*				
			S	FTP EX	HAUST	EM	ISSION	STAND	ARDS	AND C	ERTIFIC	ATION L	VELS				
		US06								SC03 COMPOSITE							
	FUEL	UEL TYPE		NMHC+NOx (g/ml)		CO PM (g/ml) (mg/m			NMHC+NOx (g/mi)		CO (g/mi)	NMHC+No (g/mi)	Ox CO	PM (mg/mi)			
		* CEI * ST CEI * ST BI		*					*		*		. 196				
@ 4K	*				*		*				*		. Allen				
					*		*	*		*		*	*	*	*		
@ UL	*				*		*	,	ł	,		*	*	*	*		
													*				
		WH	OLE V	EHICLE	EVAP	ORA	TIVE EN	ISSION	STA	NDARD	S AND	CERTIFIC	ATION LEV	ELS			
						W	HOLE VE	EHICLE	EVAP	ORATI	E TEST	TING					
EVAPORATIVE FAMILY		E F	FUEL TYPE 3DHS (g				g/test) @ UL			2DHS (g/test) @		@ UL	@ UL		RL (g/mi) @ UL		
					CERT S		TD FEL		CE	RT	STD	FEL	. CI	RT	STD		
	*		*		*		*	*	*		*	*		*	*		
(DRVR/I	FUEL	ONLY/	CANIS	TER BL	EED	EVAPO	RATIVE	EMIS	SION S	TANDA	RDS AND	CERTIFIC	ATION LE	VELS		
												.,	STER BLE				
EVAPORATIVE FAMILY		Æ	ORVR (g/gallon) @ UL			FUEL TYPE			DHS RIG TEST (g/test) @ UL			2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K			
		FL	JEL TY	TYPE CERT STD					CE	ERT STD		CERT	CERT STD		STD		
	*		*	1		*		*	1	*	*	*	*	*	*		

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RAM

RAM 3500 4X4

MDV5

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*: 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: medium-duty 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 **ENGINE EVAPORATIVE EXH PZEV TYPE VEH CLASS** TRANS TYPE OBD MAKE MODEL **FAMILY ECS** (L) 1 6.7 \$ RAM 3500 4X2 MDV5 A6 RAM MDV5 6.7 M6 1 \$ RAM RAM 3500 4X2 RAM RAM 3500 4X4 MDV5 6.7 A6 1 \$ *

M6

6.7