# California Environmental Protection Agency

# **O** Air Resources Board

CUMMINS INC.

Executive Order: A-021-0670

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 GR	OUP IN	FORMAT	ION					
MODE	TEST GROUP			VEHIC	VEHICLE CLASS(ES)				ATE	GORY	FL	FUEL TYPE	
2018	JCEXD06.78WV				DED	DEDICATED SINGLE FUEL VEHICLE				DIESEL ·			
	USEFU	LIFE	(miles)	VEI	HICLE EMISS	SION	ATEGOR	Y	IN	TERIM / INT	ERMEDIA	TE IN-USE STD	
EXH/ORVR EVAP				FTP			SFTP			FTP		SFTP	
150000 *			*	LEV3				5 SC03,	NMHC+NOX		NMHC+NOX		
SPE	CIAL FI	EATUR		IAUST EMISSI TEMS	ON CONTRO	DL		OBD ST	TATU	IS	ENGINE	DISPLACEMENT (L)	
1	TC, CAC, DFI, EGR, EGRC, OC, DPF, SCRC, NH3OC, RDQS, NOXS(2), PMS							LL	*				
*	*							PARTIAL *		6.7			
*	. *							L WITH ES	ALI	L MODELS			
			EV	APORATIVE &	REFUELING	G (EVA	P/ORVR)	FAMILY	INF	ORMATION			
EVA	P/ORV	R FAI	VILY	EVAPORATIV	E STD CATE	GORY		AP EMIS			SPECIA	L FEATURES	
*					*		*			*			
					EMISSION C	REDIT	INFORM	ATION					
	A	LLOW	ANCE FO	R TEST GROU	IP		NMOG CR			NMOG CRE	DIT FOR	OPTIONAL EXH	
BASELINE PZEV AT PZEV					TZEV	NON-PZEV ZERO-E			VAP DOR		R	TRUCKS	
* *					*	* N			N			N	
				NMO	AND FLEE	TAVE	RAGE IN	FORMAT	TION				
NMOG RAF	CH4 RAF NMOG/NMHC RATIO			HCHO/NMHC RATIO	NMOG+NOX FLEET LDT (3751 LVW-8500 + MDPV (g/mi)		500 GVW)	0 GVW) MDV (8501			NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (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-17-162) dated June 15, 2017, the on-board diagnostic II (OBD) system of the listed vehicle models has been determined to have six deficiencies for vehicles equipped with manual transmissions or 68RFE automatic transmissions and five deficiencies for vehicles equipped with Aisin automatic transmissions.

The listed vehicle models are approved subject to the manufacturer paying a fine of \$175 per vehicle for the third through sixth deficiencies for vehicles equipped with 68RFE automatic transmissions or manual transmissions and \$125 per vehicle for the third through fifth deficiencies for vehicles equipped with Aisin automatic 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 2018 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 \$37,500 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 August 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

**OB** Air Resources Board

ORVR (g/gallon) @ UL

STD

FUEL TYPE CERT

**EVAPORATIVE** 

FAMILY

\*

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						Α	TTAC	HMI	ENT							
	E)	KHAUST	ANI	D EVA	PORATI	VE EMIS	SSION	STAN	DARD	S ANI	D CERT	IFICA	TION	LEVEL	S	
		EXH	AUST	<b>EMISS</b>	ION STAN	DARDS A	ND CEF	RTIFICA	TION L	EVELS	(FTP, HV	/FET,	50°F, 2	0°F)		
		FUEL TYPE		CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; RAF: reactivity adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: milligram; mi: mile; K: 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental FTP												
			1		HC+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCI (mg/			1 .	PM g/mi)	
				CERT	STD	CERT	T ST	D	CERT	STD	CER	Т	STD	CERT	STD	
FTP@5	0K	. *		*	*	*	,		*	*	*		*	*	*	
FTP@	UL 1	DIESEL-E	EPA	0.178	. 0.40	0 0.12	2 7.	.3	*	*	*		6	0.0143	0.06	
50°F @	4K	*		*	*	*	,		*	*	*		*			
**	1 - 1				FUEL T	YPF			NN	MHC+N	Ox (g/mi)			CO (g/n	ni)	
				10221112					CERT		STD		CER	tT	STD	
HWFET @ 50K					*				*		*		J=' 10			
HWFET @ UL DIESE					DIESEL	-EPA			0.010		0.400					
20°F @ 50K												3.			*	
				SFTP E	XHAUST	EMISSION	STAND	ARDS	AND C	ERTIFIC	ATION L	EVELS	3			
		JEL TYPE		NMHC+NOx (g/mi)		US06	CO PN (g/mi) (mg/m		SC03 NMHC+NOx (g/mi)				COM		Έ	
	FUE										CO (g/mi)		IC+NO: g/mi)	x CO (g/m		
@ 4K		*	CER	Т	*	*			,		*					
					*	*	-		1		.*			1		
		CEF DIESEL-EPA ST BII		*		*	* *		*		*	0	.184	0.09	9 *	
@ UL	DIE				*	*		*	1	•	*	0	.550	6.0	*	
													* 3/		A DEST	
		WH	OLE \	/EHICL	E EVAPO	RATIVE E	MISSIO	N STAN	DARDS	S AND	CERTIFIC	ATION	LEVE	LS		
						WHOLE V	EHICLE	EVAP	ORATIV	E TEST	TING					
EVAPORATIVE FAMILY			FUEL TYPE		3DHS (g/test) @		) UL		2DHS (g/test)		@ UL		F	RL (g/mi)	@ UL	
					CERT	STD	FEL	CE	RT	STD	FEI	L	CE	RT	STD	
	*		*		*	į *	*	, *	* 1		*	*			*	
(	ORVE	R / FUEL C	ONLY	/ CANIS	STER BLE	ED EVAP	ORATIV	E EMIS	SION S	TANDA	RDS AND	CER	TIFICA	TION LE	VELS	
								Fl	JEL ON	LY EVA	P & CAN	ISTER	BLEE	D		

**3DHS RIG TEST** 

(g/test) @ UL

STD

CERT

**FUEL TYPE** 

2DHS RIG TEST

(g/test) @ UL

STD

CERT

**BLEED CANISTER** 

TEST (g/test) @ 4K

STD

CERT

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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: mediumduty passenger vehicle; HDV: heavy-duty 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 spark-ignited 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; FFH: fuel fired heater; 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: semiautomatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission: AMS: automated manual-selectable transmission: OT: other transmission

# 2018 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	S ENGINE TRANS TYPE		EVAPORATIVE FAMILY	EXH	OBD	PZEV TYPE
RAM	RAM 3500 4X2	MDV5	6.7	A6	*	1	\$	*
RAM	RAM 3500 4X2	MDV5	6.7	M6	*	1	\$	*
RAM	RAM 3500 4X4	MDV5	6.7	A6	*	1	\$	*
RAM	RAM 3500 4X4	MDV5	6.7	м6	*	1	\$	*