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 engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAN	IILY	ENGINE SIZES (L)	FUEL TYPE <sup>1</sup>	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS <sup>2</sup>	ECS & SPECIAL FEATURES <sup>3</sup>	DIAGNOSTIC <sup>6</sup>					
2021	MVPTH10.8	G01	10.8	Diesel	Diesel HHDD		TC, CAC, EGR, DDI, ECM, DOC, PTOX, SCR-U, AMOX	OBD(P)					
	CENGINE'S IDLE	ADDITIONAL IDLE EMISSIONS CONTROL 5											
	30g	N/A											
ENGINE (	L)	ENGINE MODELS / CODES (rated power, in hp)											
10.8				See attachmen	t for engine m	odels and ra	atings						
L=liter; hp	=horsepower; kw=ki	lowatt; hr	=hour;	•	0		86.abc=Title 40, Code of Federal Regulations, S	Section 86.abc;					

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;

<sup>2</sup> L/M/H HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto;

<sup>3</sup> ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; NAC=NOx adsorption catalyst; SCR-U / SCR-N=selective catalytic reduction – urea / – ammonia; WU (prefix)=warm-up catalyst; DPF=diesel particulate filter; PTOX=periodic trap oxidizer; 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; SFI/MFI=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 / EGR-C=exhaust gas recirculation / cooled EGR; PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; ECM/PCM=engine/powertrain control module; EM=engine modification; AMOX=Ammonia Oxidation Catalyst; NOXS=NOx sensor; 2 (prefix)=parallel; (2) (suffix)=in series;

<sup>5</sup> ESS=engine shutdown system (per 13 CCR 1956.8(a)(6)(A)(1); 30g=30 g/hr NOx (per 13 CCR 1956.8(a)(6)(C); APS = internal combustion auxiliary power system; ALT=alternative method (per 13 CCR 1956.8(a)(6)(D)); Exempt=exempted per 13 CCR 1956.8(a)(6)(B) or for CNG/LNG fuel systems; N/A=not applicable (e.g., Otto engines and vehicles);

6 EMD=engine manufacturer diagnostic system (13 CCR 1971); OBD(F) / (P) / (\$)=full / partial / partial with a fine / on-board diagnostic;);

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8; 2) the SET and NTE limits under the applicable California exhaust emission standards and test procedures for heavyduty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, 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 1956.8 are in parentheses.). <sup>4</sup>

in	NM	IHC	N	Ox	NMHC	C+NOx	С	0	Р	м	нсно		
g/bhp-hr	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET	
STD	0.14	0.14	0.20	0.20	*	*	15.5	15.5	0.01	0.01	*	*	
CERT	0.001	0.001	0.09	0.06	*	*	0.2	0.00	0.000	0.000	*	*	
NTE	0.21		0.30		*		19.4		0.02		*		
4													

<sup>4</sup> g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; SET=Supplemental emissions testing; NTE=Not-to-Exceed; 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:** The manufacturer has demonstrated compliance with the Greenhouse Gas Emission Standards as specified in Title 13 CCR 1956.8 and the incorporated "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy Duty Diesel-Engines and Vehicles" (HDDE Test Procedures) adopted December 12, 2002, as last amended April 18, 2019.

ln g/bhp-hr		CO <sub>2</sub>	011			
	FTP	SET	CH₄	N <sub>2</sub> O		
STD	513	447	0.10	0.10		
FCL	518	456	*	*		
FEL	534	470	0.10	0.10		
CERT	512	454	0.02	0.07		

**BE IT FURTHER RESOLVED:** Certification to the FEL(s) / FCL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) / FCL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

**BE IT FURTHER RESOLVED:** For the listed engine 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, full or partial compliance) and 13 CCR 2035 et seq. (emission control warranty).

**BE IT FURTHER RESOLVED**: Except in vehicle applications exempted per 13 CCR 1956.8(a)(6)(B), engines in this engine family certified under 13 CCR 1956.8(a)(6)(C) [30 g/hr NOx] and section 35.B.4 of the incorporated "California Exhaust Emissions Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" (HDDE Test Procedures) adopted December 12, 2002, as last amended April 18, 2019, shall be provided with an approved "Certified Clean Idle" label that shall be affixed to the vehicle into which the engine is installed.

Engines 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.

This Executive Order hereby supersedes Executive Order A-242-0147 dated January 12, 2021.

Executed on this 29th day of December 2021.

Allen Lyons, Chief Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: A-242-0147-1

 Family:
 MVPTH10.8G01
 Attachment Last Revised:
 12/28/2020

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fue		Peak Torque -	Peak Torque -		Peak Torque - Fue	el .			
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Peak Torque - Fuel		OBD	GHG	Special	Notes
D11M - 325	SWrev-00		L6	10.8	Liters	325	horsepower	1700	109	lb/hr	1205	lb-ft	1000	104	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
D11IVI - 325	Swrev-00		Lb	10.8	Liters	325	norsepower	1700	109	ib/nr	1205	ID-IT	1000	104	id/nr	Partial			DOC, PTOX, SCR, AMOX
D11M - 355	SWrev-01		L6	10.8	Liters	355	horsepower	1700	118	lb/hr	1250	lb-ft	1000	112	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
51101 555	500100 01			10.0	citers		norsepower	1700	110	15/11	1250	1011	1000	112	10/11	i ai ciai			DOC, PTOX, SCR, AMOX
D11M - 365	SWrev-02		L6	10.8	Liters	365	horsepower	1700	120	lb/hr	1390	lb-ft	1000	117	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
			-																DOC, PTOX, SCR, AMOX
D11M - 385	SWrev-03		L6	10.8	Liters	385	horsepower	1700	127	lb/hr	1500	lb-ft	1050	121	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
																			DOC, PTOX, SCR, AMOX
D11M - 385	SWrev-04		L6	10.8	Liters	385	horsepower	1700	127	lb/hr	1500	lb-ft	1050	121	lb/hr	Partial			TC, CAC, EGR, DDI, ECM, DOC, PTOX, SCR, AMOX
									-	_			_						TC, CAC, EGR, DDI, ECM,
D11M - 425	SWrev-05		L6	10.8	Liters	425	horsepower	1700	143	lb/hr	1591	lb-ft	1050	122	lb/hr	Partial			DOC, PTOX, SCR, AMOX
																			TC, CAC, EGR, DDI, ECM,
D11M - 425	SWrev-06		L6	10.8	Liters	425	horsepower	1700	143	lb/hr	1591	lb-ft	1050	122	lb/hr	Partial			DOC, PTOX, SCR, AMOX
MD7 22514	GM/1011 07		10	10.0	Litera	225	h	1700	100	11-11-1	1250	11- 64	1100	104	11. /1	Dential			TC, CAC, EGR, DDI, ECM,
MP7 - 325M	SWrev-07		L6	10.8	Liters	325	horsepower	1700	109	lb/hr	1250	lb-ft	1100	104	lb/hr	Partial			DOC, PTOX, SCR, AMOX
MP7 - 375M	SWrev-08		L6	10.8	Liters	375	horsepower	1700	124	lb/hr	1390	lb-ft	1100	116	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
10177-373101	300120-08		10	10.8	Liters	375	norsepower	1700	124	10/11	1350	10-11	1100	110	10/11	Faitiai			DOC, PTOX, SCR, AMOX
MP7 - 425M	SWrev-09		L6	10.8	Liters	425	horsepower	1700	143	lb/hr	1591	lb-ft	1050	122	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
	511101 05			10.0	Liters	125	norseponer	1,00	1.5		1001	15 11	1050			. ar ciur			DOC, PTOX, SCR, AMOX
MP7 - 345C	SWrev-10		L6	10.8	Liters	345	horsepower	1700	114	lb/hr	1390	lb-ft	1100	112	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
		-								_			_						DOC, PTOX, SCR, AMOX
MP7 - 365C	SWrev-11		L6	10.8	Liters	365	horsepower	1700	120	lb/hr	1500	lb-ft	1100	117	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
									-										DOC, PTOX, SCR, AMOX TC, CAC, EGR, DDI, ECM,
MP7 - 395C	SWrev-12		L6	10.8	Liters	395	horsepower	1700	130	lb/hr	1591	lb-ft	1100	132	lb/hr	Partial			DOC, PTOX, SCR, AMOX
			-														+	-	TC, CAC, EGR, DDI, ECM,
MP7 - 355A	SWrev-13		L6	10.8	Liters	355	horsepower	1700	118	lb/hr	1250	lb-ft	1000	112	lb/hr	Partial			DOC, PTOX, SCR, AMOX
																			TC, CAC, EGR, DDI, ECM,
MP7 - 425SE	SWrev-14		L6	10.8	Liters	425	horsepower	1700	143	lb/hr	1591	lb-ft	1050	122	lb/hr	Partial			DOC, PTOX, SCR, AMOX
MP7 - 325M	SWrev-15		L6	10.8	Liters	325	horsepower	1700	109	lb/hr	1224	lb-ft	1100	104	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
10177-323101	344164-13		10	10.8	Liters	325	norsepower	1700	105	10/11	1224	10-11	1100	104	10/11	Faitiai			DOC, PTOX, SCR, AMOX
MP7 - 375M	SWrev-16		L6	10.8	Liters	375	horsepower	1700	124	lb/hr	1367	lb-ft	1100	116	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
		-								,					,				DOC, PTOX, SCR, AMOX
MP7 - 425M	SWrev-17		L6	10.8	Liters	425	horsepower	1700	143	lb/hr	1591	lb-ft	1050	122	lb/hr	Partial			TC, CAC, EGR, DDI, ECM,
									-										DOC, PTOX, SCR, AMOX
MP7 - 395C	SWrev-18		L6	10.8	Liters	395	horsepower	1700	130	lb/hr	1591	lb-ft	1100	132	lb/hr	Partial			TC, CAC, EGR, DDI, ECM, DOC, PTOX, SCR, AMOX
									-	_			_						TC, CAC, EGR, DDI, ECM,
MP7 - 355A	SWrev-19		L6	10.8	Liters	355	horsepower	1700	118	lb/hr	1300	lb-ft	1100	112	lb/hr	Partial			DOC. PTOX. SCR. AMOX
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