

Pursuant to the authority vested in the 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 engines and emission control systems produced by the manufacturer as described below are certified for use in on-road motor vehicles with a manufacturer’s Gross Vehicle Weight Rating (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 Family	Combustion Cycle	Fuel Operation	Fuel Type(s)	Intended Vehicle Service Class	Intended GHG Vehicle Type
2024	RPCRH10.8C21	Diesel	Dedicated	Diesel	Heavy Heavy-Duty	Vocational and Tractor

Emission Control Systems (ECS)	Special Features
[1]: Electronic Direct Injection (DDI), Turbocharger (TC), Charge Air Cooler (CAC), Electronic Control Module (ECM), Exhaust Gas Recirculation (EGR), Oxidation Catalyst (OC), Selective Catalytic Reduction - Urea (SRC-U), Periodic Trap Oxidizer (PTOX), Ammonia Oxidation Catalyst (AMOX)	None

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) as demonstrated on the Federal Test Procedure (FTP) and Supplemental Emission Test (SET) test cycles, and on the Low-Load Cycle (LLC) test cycle, as applicable, and 2) Not-To-Exceed limits (NTE) as demonstrated using the Not-To-Exceed test cycle, as applicable, for exhaust criteria pollutants non-methane hydrocarbons (NMHC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM), and exhaust greenhouse gas (GHG) pollutants carbon dioxide (CO2) for vocational (VOCV) and tractor (TRAC) vehicles, methane (CH4), and nitrous oxide (N2O) as set forth in 13 CCR 1956.8 and the applicable California test procedures for heavy-duty diesel cycle engines, and 3) family emission limits (FEL) and family certification levels (FCL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per brake horsepower-hour (g/bhp-hr), except as noted, or designated as not applicable (*).

Applicable Standard	STD	Criteria				GHG			
		NMHC	NOx	CO	PM	CO2 VOCV	CO2 TRAC	CH4	N2O
Heavy-Duty Diesel Cycle Optional Standard – below 525 bhp Heavy Heavy-Duty Vocational and Tractor Clean Idle 30g	STD	0.14	0.050	15.5	0.005	506	436	0.10	0.10
	LLC	*	*	*	*	*	*	*	*
	FEL	*	0.20	*	0.01	523-552	458-464	0.10	0.10
	NTE	0.21	0.30	19.4	0.02	*	*	*	*

BE IT FURTHER RESOLVED: Any declared FEL or FCL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

BE IT FURTHER RESOLVED: For the listed engine models, the manufacturer has submitted 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: That the listed engine family is certified to the optional standard for engines below 525 brake horsepower as specified in 13 CCR 1956.8(a)(2)(C)3 and section 11.B.5.3.5 of the applicable California test procedures.

BE IT FURTHER RESOLVED: That the listed engine family is certified on an interim basis pending CARB’s submission of the proposed amendments to the California Heavy-Duty Engine and Vehicle Omnibus regulation to the Office of Administrative Law (OAL), and OAL’s approval of such amendments. Upon OAL approval of such amendments this Executive Order becomes final.

BE IT FURTHER RESOLVED: For engines in this engine family certified under 13 CCR 1956.8(a)(6)(C) [30 g/hr NOx] and section 11.A.6.3 of the applicable California test procedures, except those in vehicle applications exempted per 13 CCR 1956.8(a)(6)(B), the engine manufacturer shall provide an approved "Certified Clean Idle" label to be affixed to the vehicle into which the engine is installed.

BE IT FURTHER RESOLVED: That the listed engine family is subdivided into subfamilies for CO2 emissions, and that for each subfamily the manufacturer has declared a separate FCL and associated FEL, and has submitted materials to demonstrate compliance with the applicable California test procedures.

BE IT FURTHER RESOLVED: That the manufacturer has elected to include engine models in this engine family which are identified for "emergency vehicle use only". These "emergency vehicle use only" engines are exempt from requirements imposed pursuant to California law and the regulations adopted pursuant thereto for motor vehicle pollution control devices per California Vehicle Code Section 27156.2. The manufacturer must clearly label these engines for "emergency vehicle use only" on the engines' emission control label.

BE IT FURTHER RESOLVED: The listed engine models are certified in accordance with 13 CCR Section 1971.1(k) (deficiency and fines provisions for certification of heavy-duty on-board diagnostic (HD OBD) systems with identified deficiencies) and Health and Safety Code Section 43154.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed on this 30th day of October 2023.



Robin U. Lang, Chief
Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: RPCRH10.8C21 EO Number: A-384-0175 Date Applicable: 10/13/2023

Model	Code	Trim	Config	Displacement	Peak Power		Peak Torque		Speed	Fueling	ECS Num	GHG	Notes
					Power	Speed	Torque	Speed					
-	-	-	-	L	hp	rpm	mm3/stroke	lb-ft	rpm	mm3/stroke	-	-	-
MX-11_443hp	443hp	N/A	I6	10.8	443	1600	249.2	1696	900	291.6	1	Both	
MX-11_429hp	429hp	N/A	I6	10.8	429	1600	241.0	1650	900	283.5	1	Both	
MX-11_429hp_FE	429hp	N/A	I6	10.8	429	1600	241.0	1650	900	283.5	1	Both	FE = Fire and Emergency
MX-11_429hp_MT1650	429hp	N/A	I6	10.8	429	1600	241.0	1650	900	283.5	1	Both	MT = Multi-Torque Peak Torque = 1450 - 1650 lb-ft Peak Torque Fueling = 248.2 - 283.5 mm3/stroke
MX-11_416hp	416hp	N/A	I6	10.8	416	1600	232.6	1550	900	266.1	1	Both	
MX-11_402hp	402hp	N/A	I6	10.8	402	1600	224.5	1450	900	248.2	1	Both	
MX-11_402hp_R	402hp	N/A	I6	10.8	402	1600	224.5	1450	900	248.2	1	Both	R = Refuse
MX-11_375hp	375hp	N/A	I6	10.8	375	1600	208.9	1350	900	231	1	Both	
MX-11_355hp	355hp	N/A	I6	10.8	355	1600	197.6	1250	900	214.1	1	Both	
MX-11_355hp_R	355hp	N/A	I6	10.8	355	1600	197.6	1250	900	214.1	1	Both	R = Refuse
MX-11_355hp_FE	355hp	N/A	I6	10.8	355	1600	197.6	1250	900	214.1	1	Both	FE = Fire and Emergency