

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-14-012;

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 FAMILY	ENGINE SIZES (L)	FUEL TYPE ¹	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS ²	ECS & SPECIAL FEATURES ³	DIAGNOSTIC ⁶
2018	JRIIE06.8BWL	6.8	LPG	Otto	HDOE	TWC, HO2S, SFI, 2WR-HO2S, ECM	OBD(F)
PRIMARY ENGINE'S IDLE EMISSIONS CONTROL ⁵			ADDITIONAL IDLE EMISSIONS CONTROL ⁵				
N/A			N/A				
ENGINE (L)	ENGINE MODELS / CODES (rated power, in hp)						
6.8	See Attachment						

¹ 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; hp=horsepower; kw=kilowatt; hr=hour;
² 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;
³ L/M/H HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto;
⁴ 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); WR-HO2S=wide range 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; 2 (prefix)=parallel; (2) (suffix)=in series;
⁵ 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 heavy-duty 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.). ⁴

In g/bhp-hr	NMHC		NOx		CO		PM		HCHO	
	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET
STD	0.14	*	0.05	*	14.4	*	0.01	*	0.01	*
CERT	0.06	*	0.01	*	5.0	*	0.002	*	0.001	*
NTE	*	*	*	*	*	*	*	*	*	*

⁴ 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 Otto Cycle Engines and Vehicles" (HDOE Test Procedures) adopted December 27, 2000, as last amended September 1, 2017 using the 2014 model year National Heavy-Duty Engine and Vehicle Greenhouse Gas Program as specified in Section 1036.108 of the HDOE Test Procedures. The manufacturer has submitted the required information and therefore has met the criteria necessary to receive a California Executive Order based on the Environmental Protection Agency's Certificate of Conformity for the above listed engine family.

In g/bhp-hr	EPA CERTIFICATE OF CONFORMITY		PRIMARY INTENDED SERVICE CLASS	
	JRIIE06.8BWL-001		Vocational	
	CO ₂		CH ₄	N ₂ O
	FTP	SET		
STD	627	*	0.10	0.10*
FCL	627	*	*	*
FEL	646	*	*	*
CERT	612	*	0.03	0.02

⁴ g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; SET=Supplemental emissions testing; STD = standard or emission test cap; FEL=family emission limit; FCL=family certification level; CERT=certification level; CO₂=carbon dioxide; CH₄=methane; N₂O=nitrous oxide; VOCATIONAL=vocational engine; TRACTOR=tractor engine

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 Otto Cycle Engines and Vehicles" (HDOE Test Procedures) adopted December 27, 2000, as last amended September 1, 2017 using the Interim Provisions as specified in Section 1036.150(d) of the HDOE Test Procedures.


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).

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-344-0082 dated March 7, 2018.

Executed at El Monte, California on this 17th day of September 2018.


FOR Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
JRIIE06.8BWL	JJF618BR5	Blue Bird Vision School Bus	320@3900	NA	NA	415@3072	93.2	97.2	TWC/HO2S/SFI/2WR-HO2S/ECM
JRIIE06.8BWL	JJF618FR5	Blue Bird Vision School Bus	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF410TR5	Step-Van	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF417TR5	Step-Van	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF4178R5	Step-Van	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF41ATR5	Step-Van	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF416TR5	Step-Van	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF4168R5	Step-Van	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJFC10KR5	F-650/750 Chassis Cab	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJFC10RR5	F-650/750 Chassis Cab	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJFC10PR5	F-650/750 Chassis Cab	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJFC178R5	F-650/750 Chassis Cab	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJFA10CR5	F-450/550 Chassis Ca	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJFA17CR5	F-450/550 Chassis Cab	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJFA178R5	F-450/550 Chassis Cab	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF510TR5	Motor Home	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF517TR5	Motor Home	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF5178R5	Motor Home	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF51ATR5	Motor Home	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF516TR5	Motor Home	SAME			SAME	SAME	SAME	SAME
JRIIE06.8BWL	JJF5168R5	Motor Home	SAME			SAME	SAME	SAME	SAME