California Environmental Protection Agancy		EXECUTIVE ORDER U-R-014-0143			
OB Air Resources Board	AB VOLVO PENTA	New Off-Road Compression-Ignition Engines			

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)				
2015	FVPXL10.8CJA	10.8	Diesel	8000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT			
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Smoke Puff Limiter, Selective Catalytic Reduction-Urea			Crane, Loader, Pump, Compressor			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION		EXHAUST (g/kW-hr)					OPACITY (%)		
	STANDARD CATEGORY	-	НС	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	0.22	-	0.1	0.02	-	-	-

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this ____

day of November 2014.

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

Engine Model Summary Template

Attachment 1 of1

U-R-014-0143 11-6-2014

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HF (for diesel only)	5.Fue @(Ibs/hr) (for dies	l Rate:) peak HP 6.Torque @ RF) peak HP (SEA Gross) sels only)	PM 7.Fue mm/stro	el Rate: 8. ke@peak (lbs/hr ·que	Fuel Rate: 9.Emission Control)@peak torqu@evice Per SAE J1930
FVPXL10.8CJA	I	TAD1170 VE	315@2100	168	119	1581 Nm@1260	212	90	DDI,EM, ECM, CAC, TC, SPL, SCR-U, EGR
FVPXL10.8CJA	a rate co un manema e conservator a conservator de conserva	TAD1171 VE	355@2100	185	131	1785 Nm@1260	234	99	DDI,EM, ECM, CAC, TC, SPL, SCR-U, EGR
FVPXL10.8CJA		TAD1172 VE	382@1700	233	133	1938 Nm@1260	255	108	DDI,EM, ECM, CAC, TC, SPL, SCR-U, EGR

•