Pursuant to the authority vested in the 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-02-003;

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]
2014	EDDXH12.8FED	12.8	Diesel	Diesel	HHDD	DDI, TC, CAC, ECM, EGR, OC, PTOX, SCR-U, AMOX	OBD ($)

PRIMARY ENGINE'S IDLE EMISSIONS CONTROL [5]	ADDITIONAL IDLE EMISSIONS CONTROL [5]
30g	N/A

ENGINE (L)	ENGINE MODELS / CODES (rated power, in hp)
12.8	See attachment for engine models and ratings

* =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;

[1] **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;

[2] **L/M/H HDD**=light/medium/heavy heavy-duty diesel; **UB**=urban bus; **HDO**=heavy duty Otto;

[3] **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; **2 (prefix)**=parallel; **(2) (suffix)**=in series; **AMOX**: ammonia oxidation catalyst .

[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 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		NMHC+NOx		CO		PM		HCHO	
	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	*	*
FEL	*	*	*	*	*	*	*	*	*	*	*	*
CERT	0.000	0.003	0.17	0.03	*	*	0.04	0.02	0.004	0.000	*	*
NTE	0.21		0.30		*		19.4		0.02		*	

[4] **g/bhp-hr**=grams per brake horsepower-hour; **FTP**=Federal Test Procedure; **SET**= supplemental emissions testing; **NTE**=Not-to-Exceed emission limit; **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: 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 (engine manufacturer diagnostic system), 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 Dec. 12, 2002, as last amended March 22, 2012, shall be provided with an approved "Certified Clean Idle" label that shall be affixed to the vehicle into which the engine is installed.

BE IT FURTHER RESOLVED: The listed engine models are conditionally certified in accordance with 13 CCR Section 1971.1(k) (deficiency and fines provisions for certification of malfunction and diagnostic system) because the heavy-duty on-board diagnostic (HD OBD) system of the listed engine models has been determined to have sixteen deficiencies. The listed engine models are approved subject to the manufacturer paying a fine of $475 per engine for the third through sixteenth deficiencies in the listed engine family 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 engines 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 2014 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 engines 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 $5000 per engine pursuant to HSC Section 43154.

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.

Executed at El Monte, California on this 3rd day of January 2014.

Erik White, Chief
Mobile Source Operations Division

ATTACHMENT 1 OF 2

Engine Model Summary Template

A-290-0147
R/C 1/7/2014

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
EDDXH12.8FED	I (v & t)	DD13	370@1800	208.9	122.8	1250@1240	227.7	92.3	ECM, TC, CAC
EDDXH12.8FED	II (v & t)	DD13	350@1800	197.9	116.4	1350@1240	245.9	99.7	EGR, PTOX
EDDXH12.8FED	III (v & t)	DD13	380@1800	214.3	126.0	1350@1240	245.9	99.7	OC, DDI
EDDXH12.8FED	IV (v & t)	DD13	380@1800	214.3	126.0	1450@1240	263.5	106.8	AMOX, SCR-U
EDDXH12.8FED	V (v & t)	DD13	410@1800	230.9	135.9	1450@1240	263.5	106.8	(all ratings)
EDDXH12.8FED	VI (v & t)	DD13	380@1800	214.3	126.0	1550@1240	282.0	114.2	
EDDXH12.8FED	VII (v & t)	DD13	410@1800	230.9	135.9	1550@1240	282.0	114.2	
EDDXH12.8FED	VIII (v & t)	DD13	435@1800	244.6	144.6	1550@1240	282.0	114.2	
EDDXH12.8FED	IX (v & t)	DD13	450@1800	252.8	150.0	1550@1240	282.0	114.2	
EDDXH12.8FED	X (v & t)	DD13	410@1800	230.9	135.9	1650@1240	301.5	121.8	(v =vocational)
EDDXH12.8FED	XI (v & t)	DD13	450@1800	252.8	150.0	1650@1240	301.5	121.8	(t=tractor)
EDDXH12.8FED	XII (v & t)	DD13	470@1800	265.4	157.2	1650@1240	301.5	121.8	
EDDXH12.8FED	XIII (v & t)	DD13	370@1800	208.9	122.8	1250@1240	227.7	92.3	
EDDXH12.8FED	XIV (v & t)	DD13	350@1800	197.9	116.4	1350@1240	245.9	99.7	
EDDXH12.8FED	XV (v & t)	DD13	380@1800	214.3	126.0	1350@1240	245.9	99.7	
EDDXH12.8FED	XVI (v & t)	DD13	380@1800	214.3	126.0	1450@1240	263.5	106.8	
EDDXH12.8FED	XVII (v & t)	DD13	410@1800	230.9	135.9	1450@1240	263.5	106.8	
EDDXH12.8FED	XVIII (v & t)	DD13	380@1800	214.3	126.0	1550@1240	282.0	114.2	
EDDXH12.8FED	XIX (v & t)	DD13	410@1800	230.9	135.9	1550@1240	282.0	114.2	
EDDXH12.8FED	XX (v & t)	DD13	435@1800	244.6	144.6	1550@1240	282.0	114.2	
EDDXH12.8FED	XXI (v & t)	DD13	450@1800	252.8	150.0	1550@1240	282.0	114.2	
EDDXH12.8FED	XXII (v & t)	DD13	410@1800	230.9	135.9	1650@1240	301.5	121.8	
EDDXH12.8FED	XXIII (v & t)	DD13	450@1800	252.8	150.0	1650@1240	301.5	121.8	
EDDXH12.8FED	XXIV (v & t)	DD13 EVO bus	410@1800	230.9	135.9	1450@1240	263.5	106.8	
EDDXH12.8FED	XXV (v & t)	DD13 EVO bus	450@1800	252.8	150.0	1550@1240	282.0	114.2	
EDDXH12.8FED	XXVI (v)	DD13 fire truck	500@1800	282.4	166.3	1650@1240	301.5	121.8	

ATTACHMENT 2 OF 2

Engine Model Summary Template

A-290-0147
R/C 1/7/2014

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
EDDXH12.8FED	XXVII (v & t)	DD13 fire truck	450@1800	252.8	150.0	1550@1240	282.0	114.2	EMC, TC, CAC
EDDXH12.8FED	XXVIII (v & t)	DD13 - FCCC	450@1800	252.8	150.0	1550@1240	282.0	114.2	EGR, PTOx
EDDXH12.8FED	XXIX (v)	DD13 - FCCC	500@1800	282.4	166.3	1650@1240	301.5	121.8	OC, DDT
EDDXH12.8FED	XXX (v & t)	DD13 coach	410@1800	230.9	135.9	1450@1240	263.5	106.8	Amox, SCR-U
EDDXH12.8FED	XXXI (v & t)	DD13 coach	410@1800	230.9	135.9	1450@1240	263.5	106.8	For all
EDDXH12.8FED	XXXII (v & t)	DD13 coach	450@1800	252.8	150.0	1650@1240	301.5	121.8	Ratings
EDDXH12.8FED	XXXIII (v & t)	DD13	450@1800	252.8	150.0	1450@1240	263.5	106.8	