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]
2009	9CPXH0928E1X	15.2	Diesel	Diesel	HHDD	DDI, TC, CAC, ECM, EGR-C, PTOX, SPL	EMD

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

ENGINE (L)	ENGINE MODELS / CODES (rated power, in hp)
15.2	See attachment for engine models and ratings (clean idle engines indicated by "-30g" suffix in engine code)

* =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;

[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=on-board diagnostic system (13 CCR 1971.1);

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8; 2) the EURO 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, EURO 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	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	0.14	0.14	*	*	*	*	15.5	15.5	0.01	0.01	*	*
FEL	*	*	1.16	1.16	1.3	1.3	*	*	*	*	*	*
CERT	0.04	0.05	1.043	1.156	1.08	1.21	3.4	0.1	0.002	0.001	*	*
NTE	0.21		1.74		2.0		19.4		0.02		*	

[4] g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle, including RMCSET=ram mode cycle 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: Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(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: 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 Sep. 1, 2006, 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 have been certified to the split engine family standards under 13 CCR 1956.8(b) [diesel engines] or 13 CCR 1956.8(d) [Otto engines] and the incorporated 40 CFR 86.007-15(m)(9).

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) 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.

Executed at El Monte, California on this 9 day of February 2009.

Annette Hebert, Chief
Mobile Source Operations Division

A-013-0196
Attachment 1 of 4

Engine Model Summary Template

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
CERT ENG	C15	625@1800	401	243.1	2155@1200	427	172.2	EM, DI, TC,
1	C15	550@1800	330	199.6	1850@1200	343	138.5	EM, DI, TC,
2	C15	550@1800	330	198.7	1850@1200	353	138.3	EM, DI, TC,
3	C15	490@1800	296	179.4	1850@1200	344	139.0	EM, DI, TC,
4	C15	490@1800	307	185.7	1850@1200	352	142.1	EM, DI, TC,
5	C15	490@1800	298	180.2	1650@1200	306	123.6	EM, DI, TC,
6	C15	490@1800	309	187.0	1650@1200	312	126.1	EM, DI, TC,
7	C15	490@1800	296	179.4	1850@1200	344	139.0	EM, DI, TC,
8	C15	490@1800	307	185.7	1850@1200	352	142.1	EM, DI, TC,
9	C15	490@1800	309	187.0	1650@1200	312	126.1	EM, DI, TC,
10	C15	490@1800	296	179.4	1850@1200	344	139.0	EM, DI, TC,
11	C15	490@1800	309	187.0	1650@1200	312	126.1	EM, DI, TC,
12	C15	450@1800	275	166.4	1650@1200	312	125.9	EM, DI, TC,
13	C15	450@1800	288	174.2	1650@1200	309	124.6	EM, DI, TC,
14	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
15	C15	450@1800	277	167.5	1750@1200	337	136.1	EM, DI, TC,
16	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
17	C15	450@1800	277	167.5	1750@1200	337	136.1	EM, DI, TC,
18	C15	450@1800	290	175.8	1750@1200	333	134.5	EM, DI, TC,
19	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
20	C15	450@1800	274	165.6	1550@1200	291	117.4	EM, DI, TC,
21	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
22	C15	450@1800	275	166.4	1650@1200	312	125.9	EM, DI, TC,
23	C15	450@1800	288	174.2	1650@1200	309	124.6	EM, DI, TC,
24	C15	490@1800	295	178.4	1850@1200	328	132.3	EM, DI, TC,
25	C15	490@1800	307	185.7	1750@1200	331	133.5	EM, DI, TC,
26	C15	490@1800	309	187.0	1650@1200	312	126.1	EM, DI, TC,
27	C15	515@1800	312	188.9	1850@1200	336	143.5	EM, DI, TC,

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attachment
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Engine Model Summary Template

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
28	C15	515@1800	316	191.5	1850@1200	352	142.1	EM, DI, TC,
29	C15	450@1800	274	165.6	1550@1200	291	117.4	EM, DI, TC,
30	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
31	C15	515@1800	313	189.7	1650@1200	319	128.8	EM, DI, TC,
32	C15	625@1800	377	228.3	2050@1200	395	159.3	EM, DI, TC,
33	C15	625@1800	377	228.3	2050@1200	395	159.3	EM, DI, TC,
34	C15	600@1800	354	214.4	1850@1200	350	141.3	EM, DI, TC,
35	C15	600@1800	354	214.4	1850@1200	350	141.3	EM, DI, TC,
36	C15	600@1800	361	218.5	2050@1200	395	159.3	EM, DI, TC,
37	C15	600@1800	361	218.5	2050@1200	395	159.3	EM, DI, TC,
38	C15	600@1800	366	221.4	1850@1200	358	144.4	EM, DI, TC,
39	C15	600@1800	366	221.4	1850@1200	358	144.4	EM, DI, TC,
40	C15	600@1800	361	218.5	2050@1200	395	159.3	EM, DI, TC,
41	C15	600@1800	361	218.5	2050@1200	395	159.3	EM, DI, TC,
42	C15	625@1800	377	228.3	2050@1200	395	159.3	EM, DI, TC,
43	C15	625@1800	377	228.3	2050@1200	395	159.3	EM, DI, TC,
44	C15	625@1800	386	233.7	1900@1200	374	150.8	EM, DI, TC,
45	C15	625@1800	386	233.7	1900@1200	374	150.8	EM, DI, TC,
46	C15	515@1800	313	189.4	1650@1200	308	124.5	EM, DI, TC,
47	C15	515@1800	317	192.1	1650@1200	312	125.9	EM, DI, TC,
48	C15	490@1800	303	183.2	1650@1200	332	134.1	EM, DI, TC,
49	C15	490@1800	301	183.2	1850@1200	374	150.9	EM, DI, TC,
50	C15	550@1800	330	199.6	1850@1200	372	150.0	EM, DI, TC,
51	C15	600@1800	371	224.5	1850@1200	359	145.0	EM, DI, TC,
52	C15	600@1800	371	224.5	1850@1200	359	145.0	EM, DI, TC,

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Engine Model Summary Template

A-013-0196
attachment
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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
	1-30g	C15	550@1800	330	199.6	1850@1200	343	138.5	EM, DI, TC,
	2-30g	C15	550@1800	330	198.7	1850@1200	353	138.3	EM, DI, TC,
	3-30g	C15	490@1800	296	179.4	1850@1200	344	139.0	EM, DI, TC,
	4-30g	C15	490@1800	307	185.7	1850@1200	352	142.1	EM, DI, TC,
	5-30g	C15	490@1800	298	180.2	1650@1200	306	123.6	EM, DI, TC,
	6-30g	C15	490@1800	309	187.0	1650@1200	312	126.1	EM, DI, TC,
	7-30g	C15	490@1800	296	179.4	1850@1200	344	139.0	EM, DI, TC,
	8-30g	C15	490@1800	307	185.7	1850@1200	352	142.1	EM, DI, TC,
	9-30g	C15	490@1800	309	187.0	1650@1200	312	126.1	EM, DI, TC,
	10-30g	C15	490@1800	296	179.4	1850@1200	344	139.0	EM, DI, TC,
	11-30g	C15	490@1800	309	187.0	1650@1200	312	126.1	EM, DI, TC,
	12-30g	C15	450@1800	275	166.4	1650@1200	312	125.9	EM, DI, TC,
	13-30g	C15	450@1800	288	174.2	1650@1200	309	124.6	EM, DI, TC,
	14-30g	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
	15-30g	C15	450@1800	277	167.5	1750@1200	337	136.1	EM, DI, TC,
	16-30g	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
	17-30g	C15	450@1800	277	167.5	1750@1200	337	136.1	EM, DI, TC,
	18-30g	C15	450@1800	290	175.8	1750@1200	333	134.5	EM, DI, TC,
	19-30g	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
	20-30g	C15	450@1800	274	165.6	1550@1200	291	117.4	EM, DI, TC,
	21-30g	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
	22-30g	C15	450@1800	275	166.4	1650@1200	312	125.9	EM, DI, TC,
	23-30g	C15	450@1800	288	174.2	1650@1200	309	124.6	EM, DI, TC,
	24-30g	C15	490@1800	295	178.4	1850@1200	328	132.3	EM, DI, TC,
	25-30g	C15	490@1800	307	185.7	1750@1200	331	133.5	EM, DI, TC,
	26-30g	C15	490@1800	309	187.0	1650@1200	312	126.1	EM, DI, TC,
	27-30g	C15	515@1800	312	188.9	1850@1200	336	143.5	EM, DI, TC,
	28-30g	C15	515@1800	316	191.5	1850@1200	352	142.1	EM, DI, TC,

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Engine Model Summary Template

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attachment
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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
29-30g	C15	450@1800	274	165.6	1550@1200	291	117.4	EM, DI, TC,
30-30g	C15	450@1800	291	175.9	1550@1200	293	118.1	EM, DI, TC,
31-30g	C15	515@1800	313	189.7	1650@1200	319	128.8	EM, DI, TC,
32-30g	C15	625@1800	377	228.3	2050@1200	395	159.3	EM, DI, TC,
33-30g	C15	625@1800	377	228.3	2050@1200	395	159.3	EM, DI, TC,
34-30g	C15	600@1800	354	214.4	1850@1200	350	141.3	EM, DI, TC,
35-30g	C15	600@1800	354	214.4	1850@1200	350	141.3	EM, DI, TC,
36-30g	C15	600@1800	361	218.5	2050@1200	395	159.3	EM, DI, TC,
37-30g	C15	600@1800	361	218.5	2050@1200	395	159.3	EM, DI, TC,
38-30g	C15	600@1800	366	221.4	1850@1200	358	144.4	EM, DI, TC,
39-30g	C15	600@1800	366	221.4	1850@1200	358	144.4	EM, DI, TC,
40-30g	C15	600@1800	361	218.5	2050@1200	395	159.3	EM, DI, TC,
41-30g	C15	600@1800	361	218.5	2050@1200	395	159.3	EM, DI, TC,
42-30g	C15	625@1800	377	228.3	2050@1200	395	159.3	EM, DI, TC,
43-30g	C15	625@1800	377	228.3	2050@1200	395	159.3	EM, DI, TC,
44-30g	C15	625@1800	386	233.7	1900@1200	374	150.8	EM, DI, TC,
45-30g	C15	625@1800	386	233.7	1900@1200	374	150.8	EM, DI, TC,
46-30g	C15	515@1800	313	189.4	1650@1200	308	124.5	EM, DI, TC,
47-30g	C15	515@1800	317	192.1	1650@1200	312	125.9	EM, DI, TC,
48-30g	C15	490@1800	303	183.2	1650@1200	332	134.1	EM, DI, TC,
49-30g	C15	490@1800	301	183.2	1850@1200	374	150.9	EM, DI, TC,
50-30g	C15	550@1800	330	199.6	1850@1200	372	150.0	EM, DI, TC,
51-30g	C15	600@1800	371	224.5	1850@1200	359	145.0	EM, DI, TC,
52-30g	C15	600@1800	371	224.5	1850@1200	359	145.0	EM, DI, TC,
Cert Test 2	C15	625@1800	371	224.6	2050@1200	392	158.4	EM, DI, TC,

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