

FINAL REGULATION ORDER

Add the following section to title 13, California Code of Regulations, to read as set forth on the following pages:

Section 2011	Software Upgrade for 1993 through 1998 Model Heavy-Duty Trucks
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Note: This section is shown entirely in plain text.

Amend the following sections of title 13, California Code of Regulations, to read as set forth on the following pages:

Section 2180.1	Heavy-Duty Diesel Smoke Emission Testing, and Heavy-Duty Vehicle Emission Control System Inspections, <u>Definitions</u>
Section 2181	Heavy-Duty Diesel Smoke Emission Testing, and Heavy-Duty Vehicle Emission Control System Inspections, Responsibilities of the Driver and Inspector During the Inspection Procedure
Section 2184	Heavy-Duty Diesel Smoke Emission Testing, and Heavy-Duty Vehicle Emission Control System Inspections, Refusal to Submit to Inspection Procedure
Section 2185	Heavy-Duty Diesel Smoke Emission Testing, and Heavy-Duty Vehicle Emission Control System Inspections, Civil Penalty Schedule
Section 2186	Heavy-Duty Diesel Smoke Emission Testing, and Heavy-Duty Vehicle Emission Control System Inspections, Demonstration of Correction and Post-Repair Test or Inspection
Section 2192	Periodic Smoke Inspections of Heavy-Duty Diesel-Powered Vehicles, Vehicle Inspection Responsibilities
Section 2194	Periodic Smoke Inspections of Heavy-Duty Diesel-Powered Vehicles, Record Keeping Requirements

Note: The proposed regulatory amendments are shown in underline to indicate additions to the text and ~~strikeout~~ to indicate deletions.

Adopt new section 2011, title 13, California Code of Regulations to read as follows:

(Note: the entire text of section 2011 as set forth and modified below, is new language proposed to be added to the California Code of Regulations.)

§ 2011. Software Upgrade for 1993 through 1998 Model Year Heavy-Duty Trucks.

- (a) Applicability. This section 2011 applies to Low NOx Rebuild Engines, as defined, operating in the State of California that are either:
 - (1) registered in California; or
 - (2) registered outside of California, as defined.

- (b) Definitions. The definitions in section 1900 (b), Chapter 1, title 13 of the California Code of Regulations apply, with the following additions:
 - (1) “Driver” has the same meaning as title 13, California Code of Regulations, section 2180.1 (a)(7).
 - (2) “HHDDE” means a heavy-duty diesel engine certified as a motor vehicle heavy heavy-duty engine in accordance with title 13, California Code of Regulations, section 1956.8.
 - (3) “Incentive project” means a project conducted under applicable provisions in part IX.C of the Heavy Duty Diesel Engine Settlement Agreements with California and Consent Decrees with the United States Environmental Protection Agency. The California Settlement Agreements and federal Consent Decrees are identified in title 13, California Code of Regulations, section 1956.8 (a)(2)(A), footnote 1.
 - (4) “Low NOx Rebuild Kit” means an engine manufacturer’s software and/or minor hardware upgrade that results in lower emissions of oxides of nitrogen (NOx) when installed on the engine control module of heavy-duty diesel engines requiring such kits. Such engines are identified in plans implementing a Low NOx Rebuild Program under both Heavy Duty Diesel Engine Settlement Agreements with California and Consent Decrees with the United States Environmental Protection Agency, and are listed in (b)(5). The California Settlement Agreements and federal Consent Decrees are identified in title 13, California Code of Regulations, section 1956.8 (a)(2)(A), footnote 1.
 - (5) “Low NOx Rebuild Engine” means a 1993 through 1998 model year heavy-duty diesel engine for which a Low NOx Rebuild Kit must be available for installation. The complete list of Low NOx Rebuild Engines is:

Low NOx Rebuild Engines						
Make and Year	Engine Model	Notes				
Caterpillar 1994 – 1998	3406E	Engine Serial Number (ESN) 5EK05767 through 5EK99381				
Caterpillar 1994 – 1998	3406E	ESN: 6TS00097 through 6TS27803				
Caterpillar 1994 – 1998	3406E	ESN: 1LW00001 through 1LW33262				
Caterpillar 1994 – 1998	3406E	ESN: Reman 4AS00001 through 4AS00385				
Caterpillar 1995 – 1998	3126	ESN: 1WM00210 through 1WM26819				
Caterpillar 1995 – 1998	3126	ESN: 4ES000226 through 4ES00454				
Caterpillar 1995 – 1998	3126	ESN: Reman 6RW00001 and up				
Caterpillar 1993 – 1998	3126B	ESN: 7AS00001 through 7AS32636				
Caterpillar 1995 – 1997	3116	ESN: 8WL00297 through 8WL07351				
Caterpillar 1993 – 1998	3176B	ESN: 9CK00647 through 9CK32795				
Caterpillar 1993 – 1998	3176B	ESN: Reman 3LZ00001 and up				
Caterpillar 1993 – 1998	C-10	ESN: 2PN01000 through 2PN07278				
Caterpillar 1993 – 1998	C-10	ESN: 8YS00449 through 8YS07060				
Caterpillar 1993 – 1998	C-10	ESN: Reman AKB00001 and up				
Caterpillar 1993 – 1998	C-12	ESN: 1YN01200 through 1YN12844				
Caterpillar 1993 – 1998	C-12	ESN: 9NS00372 through 9NS19786				
Caterpillar 1993 – 1998	C-12	ESN: Reman ALS00001 and up				
Cummins 1993 – 1998	ISB Critical Parts List Number (CPL) 2446	Horsepower (HP)	Torque (lb-ft)	Governed Speed	Original Software Calibration (SC) Options and Supercessions	Low NOx SC Option
		175	420	2500	9819	9819
		175	420	2500	9845	9845
Cummins 1993 – 1998	ISB CPL 2447	190	520	2500	9818	9818
		190	520	2500	9846	9846
		195	520	2600	9817	9817
		195	520	2600	9838	9838
Cummins 1993 – 1998	ISB CPL 2448	210	520	2600	9816	9816
		210	520	2600	9852	9852
		215	520	2500	9815	9815
		215	520	2500	9847	9847
		215	605	2500	9821	9821
		215	605	2500	9850	9850
Cummins 1993 – 1998	ISB CPL 2449	230	605	2500	9814	9814
		230	605	2500	9848	9848
		230	660	2500	9820	9820
		230	660	2500	9851	9851
Cummins 1993 – 1998	ISB CPL 2450	250	660	2500	9813	9813
		250	660	2500	9849	9849
Cummins 1993 – 1998	ISB CPL 2451	275	660	2500	9812	9812
		275	660	2500	9875	9875
Cummins 1993 – 1998	M11 CPL 1855	330	1250	2000	2798, 2818, 2834, 2889, 2950, 2124, 2285, 2474, 2542	20234
		330	1250	1800	2935, 2949, 2125, 2286, 2475, 2543	20235
		310	1150	2000	2923, 2954, 2129, 2287, 2476, 2544	20236

		310	1150	1800	2922, 2936, 2953, 2130, 2288, 2477, 2545	20237
		280	1050	2000	2784, 2794, 2814, 2830, 2885, 2921, 2958, 2133, 2292, 2480, 2548	20238
		280	1050	1800	2829, 2884, 2920, 2957, 2134, 2293, 2481, 2550	20239
		280 ESP	1050	1800	2792, 2883, 2928, 2961, 2181, 2298, 2391, 2485, 2556	20241
Cummins 1993 – 1998	M11 CPL 1856	370	1350	2000	2791, 2804, 2825, 2841, 2896, 2943, 2117, 2278, 2465, 2529	20228
		370	1350	1800	2932, 2942, 2118, 2279, 2466, 2532	20229
		350	1350	2000	2802, 2823, 2839, 2894, 2945, 2119, 2280, 2469, 2535	20230
		350	1350	1800	2933, 2944, 2120, 2281, 2470, 2537	20231
		330	1350	2000	2800, 2821, 2837, 2892, 2947, 2122, 2283, 2472, 2539	20232
		330	1350	1800	2934, 2946, 2123, 2284, 2473, 2541	20233
Cummins 1993 – 1998	M11 CPL 1857	310 ESP	1150	1800	2960, 2180, 2297, 2390, 2484, 2553	20240
Cummins 1993 – 1998	M11 CPL 2370	330	1250	1800	2601	20304
		330	1250	1800	2598	20305
		310	1150	2100	2603	20306
		280	1050	1800	2605	20307
		330	1250	2100	2599	20308
		310	1150	1800	2602	20309
		280	1050	1800	2604	20310
		305	1150	2100	2698	20311
Cummins 1993 – 1998	M11 CPL 2371	370	1350	1800	2588	20312
		350	1350	1800	2591	20313
		350	1350	1800	2594	20314
		330	1350	1800	2595	20315
		370	1450	1800	2587	20316
		330	1350	2100	2589	20317
		330	1350	2100	2596	20318
		420	1450	2100	2620	20319
		370	1350	1800	2621	20320
370	1350	1800	2627	20321		

Cummins 1993 – 1998	M11 CPL 2036	335	1350	2100	2631	20322
		330	1250	1800	2264	20289
		330	1250	1800	2261	20290
		310	1150	2100	2266	20291
		280	1050	2100	2268	20292
		330	1250	2100	2262	20293
		310	1150	1800	2265	20294
		280	1050	1800	2267	20295
Cummins 1993 – 1998	M11 CPL 2037	400	1450	1800	2189	20296
		370	1350	1800	2191	20297
		350	1350	1800	2194	20298
		350	1350	1800	2197	20299
		330	1350	1800	2198	20300
		370	1450	2100	2190	20301
		370	1350	2100	2192	20302
		370	1350	1800	2440	20303
Cummins 1993 – 1998	N14 CPL 1573	370	1400	1800	1215, 1510, 1590, 10017	10469
		370/460 ESP	1400/ 1550	2100	1216, 1306, 1512, 1569, 1592, 10019	10470
		410	1450	2100	1218, 1514, 1594, 10021	10471
		430	1450	1800	1220, 1515, 1595, 10022	10472
		430	1450	2100	1219, 1516, 1596, 10023	10473
Cummins 1993 – 1998	N14 CPL 1574	310	1250	1800	1204, 1501, 1581, 10008	10463
		310/430 ESP	1250/ 1450	1800	1206, 1304, 1502, 1567, 1582, 10009	10464
		330	1350	1800	1207, 1503, 1583, 10010	10465
		330	1350	1800	1125, 1208, 1504, 1584, 10011	10466
		350	1350	1800	1211, 1507, 1587, 10014	10467
		350	1400	1800	1212, 1508, 1588, 10015	10468
Cummins 1993 – 1998	N14 CPL 1807	310	1250	1800	1141, 1242, 1360, 1632, 10076	10480
		310/390 ESP	1250/ 1450	1800	1142, 1243, 1300, 1409, 1570, 1633, 10077	10481
		330	1350	1800	1143, 1244, 1361, 1634, 10078	10482
		330	1350	1800	1551, 1635, 10079	10483
		330	1350	1800	1602, 1636, 10080	10484
		330	1350	2100	1144, 1245, 1362, 1637, 10081	10485
		350	1350	1800	1145, 1246, 1363, 1638, 10082	10486
		350	1350	1800	1552, 1639, 10083	10487

		350	1400	1800	1147, 1248, 1365, 1641, 10085	10488
		350	1400	2100	1148, 1249, 1366, 1642, 10086	10489
		350/390 ESP	1350/ 1500	1800	1149, 1185, 1250, 1251, 1367, 1571, 1643, 10087	10490
		370	1400	1800	1150, 1253, 1368, 1646, 10090	10491
		370	1400	1800	1553, 1647, 10091	10492
		370	1450	1800	1152, 1255, 1370, 1649, 10093	10493
		370	1450	2100	1153, 1256, 1371, 1650, 10094	10494
Cummins 1993 – 1998	N14 CPL 1809	410	1450	1800	1163, 1258, 1373, 1655, 10099	10496
		410	1450	1800	1555, 1656, 10100	10497
		410	1450	2100	1164, 1259, 1374, 1657, 10101	10498
		410	1450	2100	1556, 1658, 10102	10499
		435	1450	1800	1165, 1260, 1375, 1659, 10103	10500
		435	1450	2100	1100, 1166, 1261, 1376, 1661, 10105	10501
		435	1450	2100	1578, 10045, 10106	10502
		435	1550	1800	1101, 1167, 1262, 1377, 1662, 10107	10503
		435	1550	2100	1102, 1168, 1263, 1378, 1663, 10108	10504
Cummins 1993 – 1998	N14 CPL 1844	400/460 ESP	1450/ 1650	1800	1103, 1161, 1170, 1265, 1266, 1267, 1380, 1381, 1575, 1665, 10110	10505
		435	1650	2100	1104, 1171, 1269, 1383, 1667, 10113	10506
		460	1650	2100	1106, 1173, 1272, 1386, 1670, 10116	10507
		500	1650	2100	1107, 1135, 1274, 1388, 1672, 10118	10508
Cummins 1993 – 1998	N14 CPL 1987	350/435	1350/ 1550	1800	1184, 1257, 1372, 1546, 1574, 1603, 1654, 10098	10495
Cummins 1993 – 1998	N14 CPL 2025	435	1450	1800	1437	10616
		435	1450	2100	1438	10617
		435	1550	1800	1439	10618
		435	1550	2100	1440	10619

		435	1650	1900	1542	10620
		435	1650	2100	1442	10621
		435/500 ESP	1550/ 1650	2100	1455	10622
		460	1550	2100	1444	10623
		460	1650	1900	1538	10624
		460	1650	2100	1446	10625
		500	1650	2100	1447	10626
		500	1750	2100	1448	10627
		525	1850	2100	1454	10628
		435 TOP2	1650	2100	10068	10629
		435 ESP TOP2	1550/ 1650	2100	10069	10630
Cummins 1993 – 1998	N14 CPL 2026	370/435 ESP	1450/ 1550	1800	1433	10510
		410	1450	1800	1430	10509
Cummins 1993 – 1998	N14 CPL 2027	330	1350	1800	1415	10606
		330/410 ESP	1350/ 1450	1800	1427	10607
		350	1350	1800	1417	10608
		350	1350	2100	1418	10609
		350	11400	1800	1420	10610
		370	1400	1800	1422	10611
		370	1450	1800	1425	10612
		370	1450	2100	1426	10613
		370	1450	2100	1561	10614
		330 ESP TOP2	1350/ 1450	1800	10061	10615
Cummins 1993 – 1998	N14 CPL 2389	330	1350	1800	10149	10631
		370	1450	1800	10156	10632
		370	1450	2100	10157	10633
		370	1450	2100	10342	10634
Cummins 1993 – 1998	N14 CPL 2390	370/435 ESP	1450/ 1550	1800	10161	10635
		370 ESP TOP2	1450/ 1550	1800	10242	10636
Cummins 1993 – 1998	N14 CPL 2391	435	1450	1800	10170	10637
		435	1450	2100	10172	10638
		435	1550	1800	10173	10639
		435	1650	2100	10176	10640
		435/500 ESP	1550/ 1650	2100	10180	10641
		460 ST2	1650/ 1850	1800	10261	10642
		460	1650	2100	10184	10643
		500	1650	2100	10186	10644
		525	1850	2100	10191	10645
		435 TOP2	1650	2100	10246	10646
		435 ESP TOP2	1550/ 1650	2100	10248	10647
Detroit Diesel Corp. 1994 – 1997	S60 6067-GK60	ESN 6R157655 through 6R472018				
Detroit Diesel Corp. 1994 – 1997	S60 6067-GK28	ESN 6R157655 through 6R472018				

Detroit Diesel Corp. 1998	S60 6067-TK60	ESN 6R157655 through 6R472018	
Detroit Diesel Corp. 1998	S60 6067-TK28	ESN 6R157655 through 6R472018	
Detroit Diesel Corp. 1998	S60 6067-PK60	ESN 6R157655 through 6R472018	
Detroit Diesel Corp. 1998	S60 6067-PK28	ESN 6R157655 through 6R472018	
Detroit Diesel Corp. 1994 – 1995	S60 6067-WK60	ESN 6R157655 through 6R472018	
Detroit Diesel Corp. 1994 – 1995	S60 6067-WK28	ESN 6R157655 through 6R472018	
Detroit Diesel Corp. 1996 – 1997	S60 6067-SK60	ESN 6R157655 through 6R472018	
Detroit Diesel Corp. 1996 – 1997	S60 6067-SK28	ESN 6R157655 through 6R472018	
Mack Trucks 1997 – 1998	EM7-275	ESN	EPA Family Name (FN) or V-MAC Data File Part No. (DF)
		7A through 8R	FN: VMKX728EJDAZW and WMKXH11.9E53
Mack Trucks 1994 – 1998	EM7-300	4B through 8R	All
Mack Trucks 1997	E7-300	7A through 7Y	FN: VMK728EJDAZW
Mack Trucks 1998		8A through 8R	FN: WMKXH11.9E53
Mack Trucks 1997	E7-310/330	7A through 7Y	FN: VMK728EJDAZW
Mack Trucks 1998		8A through 8R	All
Mack Trucks 1996	E7-330/350	6A through 6Y	DF: 1MS548P11, 1MS559P11
Mack Trucks 1997 – 1998		7A through 8R	All
Mack Trucks 1994 – 1998	E7-350	4B through 8R	All
Mack Trucks 1996 – 1998	E7-355/380	6A through 8R	All
Mack Trucks 1994 – 1995	E7-400	4B through 5Y	DF: 1MS536P7, 1MS541P7, 1MS543P7
		6A through 8R	All
Mack Trucks 1996 – 1998	E7-427	4B through 4Z	All
Mack Trucks 1994		5A through 6Y	DF: 1MS536P8, 1MS543P8, 1MS548P8, 1MS549P8, 1MS559P8
Mack Trucks 1995 – 1996		7A through 8R	All
Mack Trucks 1997 – 1998		4B through 5Y	All
Mack Trucks 1994 – 1995	E7-454	6A through 6Y	DF: 1MS548P9, 1MS559P9
Mack Trucks 1996		7A through 8R	All
Mack Trucks 1997 – 1998		7A through 8R	All
Mack Trucks 1997 – 1998	E7-460	7A through 8R	All
Renault VI 1993 –1998	MIDR060226M/2	Engine Family Name (EFNa) PRE0377FAC9	
Renault VI 1993 –1998	MIDR060226L511	EFNa: SR3377D8DAAW, TR3377D8DAAW, and VR3377D8DAAW	
Renault VI 1993 –1998	MIDR060226M511	EFNa: SR3377D8DABW, TR3377D8DABW, and VR3377D8DABW	
Navistar/International 1998	DT 466E	Engine Family Number (EFN) WNVXH0466FNA	
Navistar/International 1998	DT 466E	EFN: WNVXH0466CCB, WNVXH0466FNC	
Navistar/International 1998	DT 466E	EFN: WNVXH0466CCD	
Navistar/International 1998	530E	EFN: WNVXH0530FNA, WNVXH0530CCB	
Navistar/International 1998	530E	EFN: WNVXH0530FNC, WNVXH0530CCD	
Volvo 1994 – 1998	VE D12	EFNa RVT12.EJDBRA	
Volvo 1994 – 1998	VE D12	EFNa: SVT12.EJDBRA, TVT12.EJDBRA	
Volvo 1994 – 1998	VE D12A	EFNa: VVT12.EJDBRA	
Volvo 1994 – 1998	VE D12B-345 EPG	EFNa: WVTXH12.150S	
Volvo 1994 – 1998	VE D12B-385 EPG	EFNa: WVTXH12.150S	
Volvo 1994 – 1998	VE D12B-425 EPG	EFNa: WVTXH12.150S	
Volvo 1994 – 1998	VE D12B-345 VEB	EFNa: WVTXH12.150S	
Volvo 1994 – 1998	VE D12B-385 VEB	EFNa: WVTXH12.150S	
Volvo 1994 – 1998	VE D12B-425 VEB	EFNa: WVTXH12.150S	
Volvo 1998	VE D7C-275	EFNa: WVTXH07.350S	
Volvo 1998	VE D7C-300	EFNa: WVTXH07.350S	

- (6) “Low NOx Rebuild Engine Manufacturer” means an engine manufacturer that was required to develop Low NOx Rebuild Kits under (b)(4).
 - (7) “MHDDE” means a heavy-duty diesel engine certified as a motor vehicle medium heavy-duty engine in accordance with title 13, California Code of Regulations, section 1956.8.
 - (8) “Offset project” means a project conducted under applicable provisions in part IX.C of the Heavy Duty Diesel Engine Settlement Agreements with California and Consent Decrees with the United States Environmental Protection Agency. The California Settlement Agreements and federal Consent Decrees are identified in title 13, California Code of Regulations, section 1956.8 (a)(2)(A), footnote 1.
 - (9) “Owner” has the same meaning as title 13, California Code of Regulations, section 2180.1 (a)(21).
 - (10) “Registered outside of California” means any of the following:
 - (A) A heavy-duty diesel-powered vehicle operating in California under the terms of Interstate Reciprocity Agreements as authorized by Article 3 (commencing with section 8000), Chapter 4, Division 3 of the Vehicle Code and which belongs to a fleet that is not based in California;
 - (B) A heavy-duty diesel-powered vehicle operating in California under the terms of any other apportioned registration, reciprocity, or bilateral prorate registration agreement between California and other jurisdictions and which belongs to a fleet that is not based in California; or
 - (C) A heavy-duty diesel-powered vehicle operating in California under a short-term vehicle registration or permit of 90 days or less (including but not limited to 90-day temporary registrations and 4-day permits under Vehicle Code section 4004).
- (c) Standards.
- (1) On and after the applicable implementation date in subsection (d), and, except as provided in (e)(2), a vehicle propelled by a Low NOx Rebuild Engine must not operate on highways within the State of California without a Low NOx Rebuild Kit installed that meets the following emission requirements:

Software Upgrade Requirements					
Option A (1994 – 1998)			Option B (1993 – 1998)		
	MHDDE	HHDE		MHDDE	HHDE
Euro III	6.0 g/bhp-hr	7.0 g/bhp-hr	Euro III	6.5 g/bhp-hr	7.5 g/bhp-hr
NTE	7.5 g/bhp-hr	8.75 g/bhp-hr	NTE	8.1 g/bhp-hr	9.38 g/bhp-hr

Manufacturer Option for Software Upgrade		
Company	Option	MY Year
Caterpillar	B	1993 - 1998
Cummins	B	1993 - 1998
Detroit Diesel Corporation	A	1994 - 1998
Mack	A	1994 - 1998
Navistar	not applicable	1998 (only)
Volvo	A	1994 - 1998
Renault	B	1993 - 1998

- (2) A Low NOx Rebuild Engine Manufacturer's authorized dealers, distributors, repair facilities, and rebuild facilities, except as provided in (e)(2), must:
- (A) provide upon request and at no added cost a Low NOx Rebuild Kit to the owner or driver of a vehicle with a Low NOx Rebuild Engine, and to any non-affiliated rebuilder or other person; and
 - (B) install the Low NOx Rebuild Kit within a reasonable amount of time.
- (3) Except as provided in (e)(2), Low NOx Rebuild Engine Manufacturers must reimburse authorized dealers, distributors, repair facilities, and rebuild facilities for their costs to install Low NOx Rebuild Kits on Low NOx Rebuild Engines, at the reimbursement cost level paid under the Consent Decrees and Settlement Agreements. Low NOx Rebuild Engine Manufacturers may choose to reimburse at a rate above the reimbursement cost level paid under the Consent Decrees and Settlement Agreements.
- (4) No person may install on a Low NOx Rebuild Engine any engine software containing electronic control strategies, other than a Low NOx Rebuild Kit.
- (5) Any person installing a Low NOx Rebuild Kit must affix a label to each engine at time of installation. The label must do all of the following:
- (A) The label must contain an identifiable characteristic allowing the ARB to determine whether a Low NOx Rebuild Engine has had the appropriate Low NOx Rebuild Kit installed. This identifiable

characteristic may be a unique part number or other marking on the engine control module;

- (B) The label must contain a statement with appropriate blank spaces for the individual performing the installation to indicate when and by whom the Low NOx Rebuild Kit was installed on the engine;
 - (C) The label must be placed in such a location as approved by the ARB consistent with California law;
 - (D) The label must be fabricated of a material suitable for the location in which it is installed; and
 - (E) The label must not be readily removable intact.
- (6) The owner of a vehicle cited for violating (c)(1) of this section must submit proof of Low NOx Rebuild Kit installation, as identified in title 13, CCR, section 2186, within 45 days of personal or certified receipt of the citation.
- (7) Any Low NOx Rebuild Engine Manufacturers' authorized dealers, distributors, repair facilities, or rebuild facilities, except as provided in (e)(2), refusing to install a Low NOx Rebuild Kit upon request, or failing to install a Low NOx Rebuild Kit within a reasonable amount of time from that request, shall be subject to a civil penalty of \$500 per incident.
- (d) Implementation Dates.
- (1) 1993 and 1994 model year Low NOx Rebuild Engines, except as provided in (e)(2), must have a Low NOx Rebuild Kit installed by June 30, 2005.
 - (2) 1995 and 1996 model year Low NOx Rebuild Engines, except as provided in (e)(2), must have a Low NOx Rebuild Kit installed by September 30, 2005.
 - (3) 1997 and 1998 model year Low NOx Rebuild Engines other than MHDDE, except as provided in (e)(2), must have a Low NOx Rebuild Kit installed by December 31, 2005.
 - (4) 1997 and 1998 model year MHDDE Low NOx Rebuild Engines, except as provided in (e)(2), must have a Low NOx Rebuild Kit installed by December 31, 2006.
- (e) Exemptions.

- (1) A Low NOx Rebuild Engine receiving a software upgrade performed as part of an approved incentive or offset project prior to the adoption of Section 2011 is exempt from the requirements in (c).
- (2) Low NOx Rebuild Engines identified in (b)(5) as a make and year of Detroit Diesel Corp. (DDC) are exempt from the requirements of this regulation, as the Board has found that DDC has met the first voluntary program target and is on track to meet future targets under the voluntary program. Owners, authorized dealers, and distributors of these engines, and repair and rebuild facilities for these engines, are likewise exempt from the provisions of this regulation with respect to these engines.

(f) Severability.

If any provision of this section or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the section that can be given effect without the invalid provision or application, and to this end the provisions of this section are severable.

(g) The requirements in (c)(2) and (c)(3) are a declaration of existing legal obligations.

NOTE: Authority Cited: Sections 39600, 39601, 43013, 43018, and 43701, Health and Safety Code. Reference: Sections 39001, 39003, 43000, 43013, 43016, and 43018, Health and Safety Code.

Amend section 2180.1, title 13, California Code of Regulations to read as follows:

§ 2180.1. Definitions

- (a) The definitions of this section supplement and are governed by the definitions set forth in Chapter 2 (commencing with section 39010), Part 1, Division 26 of the Health and Safety Code. The following definitions shall govern the provisions of this chapter.
- (1) “ARB post-repair inspection” means a repeat emission control system inspection, conducted by the Air Resources Board at an Air Resources Board-specified site, for the purpose of clearing a citation issued under section 2185(a)(2)(C).
 - (2) “ARB post-repair test” means a repeat test, conducted by the Air Resources Board at an Air Resources Board-specified site, for the purpose of clearing a citation issued under section 2185(a)(2)(C).
 - (3) “Basic penalty” means the civil penalty of (\$500) for a test procedure or emission control system inspection violation that is to be deposited in the Vehicle Inspection and Repair Fund.
 - (4) “Citation” means a legal notice issued by the Air Resources Board to the owner of a heavy-duty vehicle requiring the owner to repair the vehicle and to pay a civil penalty.
 - (5) “Defective” means a condition in which an emission control system or an emission control system component is malfunctioning due to age, wear, malmaintenance, or design defects.
 - (6) “Demonstration of correction” means the documents identified in section ~~2186(a) or successful completion of an ARB post-repair test or inspection.~~
 - (7) “Driver” has the same meaning as defined in California Vehicle Code section 305.
 - (8) “Emission control label” means the label required by the “California Motor Vehicle Emission Control Label Specifications”, incorporated by reference in 13 CCR, section 1965, or Title 40, Code of Federal Regulations (40 CFR), section 86.085-35 or 40 CFR Part 86, Subpart A.
 - (9) “Emission control system” means the pollution control components on an engine at the time its engine family is certified, including, but not limited to, the emission control label.

- (10) "Executive Officer" means the Executive Officer of the Air Resources Board or his or her designee.
- (11) "Fleet" means two (2) or more heavy-duty vehicles.
- (12) "Heavy-duty vehicle" means a motor vehicle having a manufacturer's maximum gross vehicle weight rating (GVWR) greater than 6,000 pounds, except passenger cars.
- (13) "Inspection procedure" means the test procedure specified in section 2182 and the emission control system inspection specified in section 2183.
- (14) "Inspection site" means an area including a random roadside location, a weigh station, or a fleet facility used for conducting the heavy-duty vehicle test procedure, emission control system inspection, or both.
- (15) "Inspector" means an Air Resources Board employee with the duty of enforcing Health and Safety Code sections 43701(a) and 44011.6, and Title 13, CCR sections 2180 through 2194.
- (16) "Issuance" means the act of mailing or personally delivering a citation to the owner.
- (17) "Minimum penalty" means the (\$300) penalty that is to be deposited in the Diesel Emission Reduction Fund pursuant to Health and Safety Code section 44011.6(l).
- (18) "Notice of Violation" means a legal notice issued to the owner of a heavy-duty vehicle powered by a pre-1991 model-year diesel engine with a measured smoke opacity exceeding 55 percent but not exceeding 69 percent, requiring the owner to repair the vehicle and submit a demonstration of correction.
- (19) "Officer" means a uniformed member of the Department of the California Highway Patrol.
- (20) "Opacity" means the percentage of light obstructed from passage through an exhaust smoke plume.
- (21) "Owner" means either (A) the person registered as the owner of a vehicle by the California Department of Motor Vehicles (DMV), or its equivalent in another state, province, or country; or (B) a person shown by the registered owner to be legally responsible for the vehicle's maintenance. The person identified as the owner on the registration document carried on the vehicle at the time a citation is issued shall be deemed the owner

unless that person demonstrates that another person is the owner of the vehicle.

- (22) "Removal from service" means the towing and storage of a vehicle under the auspices of the Department of the California Highway Patrol.
- (23) "Repair facility" means any place where heavy-duty vehicles are repaired, rebuilt, reconditioned, or in any way maintained for the public at a charge, and fleet maintenance facilities.
- (24) "SAE J1667" means Society of Automotive Engineers (SAE) Recommended Practice SAE J1667 "Snap-Acceleration Smoke Test Procedure for Heavy-Duty Diesel Powered Vehicles," as issued February 1996 ("1996-02"), which is incorporated herein by reference.
- (25) "Scan tool evaluation" means using an electronic device to determine if a Low NOx Rebuild Kit, as defined in section 2011(b)(4), is installed.
- (256) "Schoolbus" means the same as defined in California Vehicle Code section 545.
- (267) "Smokemeter" means a detection device used to measure the opacity for smoke in percent opacity.
- (278) "Tampered" means missing, modified, or disconnected.
- (289) "Uncleared citation" means a citation for which demonstration of correction and, if required, payment of any civil penalty, has not been made.

NOTE: Authority Cited: Sections 39600, 39601, 43013, 43701, and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701, and 44011.6, Health and Safety Code. Section 505, Vehicle Code.

Amend section 2181, title 13, California Code of Regulations to read as follows:

§ 2181. Responsibilities of the Driver and Inspector During the Inspection Procedure.

- (a) Driver of heavy-duty diesel-powered vehicle. The driver of a heavy-duty diesel-powered vehicle selected to undergo the inspection procedure shall do all of the following:
 - (1) Drive the vehicle to the inspection site upon direction of an officer.
 - (2) Show proof of driver's license and vehicle registration to the inspector or officer upon request.
 - (23) Perform the test procedure upon request by an inspector.
 - (34) Open the vehicle door so that the inspector can observe the driver depress the accelerator pedal.
 - (45) Permit an emission control system inspection and open the hood of the vehicle upon the request of the inspector.
 - (6) Permit a scan tool evaluation upon request of the inspector.
 - (57) Sign the citation or notice of violation to acknowledge its receipt and the smoke test report to acknowledge performance of the test procedure.
- (b) Driver of heavy-duty gasoline-powered vehicle. The driver of a heavy-duty gasoline-powered vehicle selected to undergo the inspection shall:
 - (1) Drive the vehicle to the inspection site upon direction of an officer.
 - (2) Show proof of driver's license and vehicle registration to the inspector or officer upon request.
 - (23) Permit an emission control system inspection and open the hood of the vehicle upon request of the inspector.
 - (34) Sign the citation to acknowledge its receipt.
- (c) Inspector. The inspector in performing the inspection procedure shall do all of the following:
 - (1) Advise the driver that refusal to submit to the inspection procedure is a violation of these regulations

- (2) Obtain engine identification information from the vehicle when tested pursuant to section 2182 to determine which opacity standard specified in section 2182 applies.
- (3) Except as otherwise provided in section 2181(c)(4), issue a copy of the citation to the driver of a vehicle that fails the test procedure or the emission control system inspection.
- (4) Issue a copy of the notice of violation to the driver of a vehicle powered by a pre-1991 model-year diesel engine with a measured smoke opacity exceeding 55 percent but not exceeding 69 percent, except where a notice of violation or citation has been issued for the vehicle in the preceding 12 months.
- (5) Issue a warning to the owner of a heavy-duty diesel-powered vehicle missing its emission control label that the label must be replaced and the engine number identification must be provided to the ARB within 30 days of written notification by the ARB, or it will be conclusively presumed in any subsequent smoke opacity test where the emission control label remains missing that the vehicle is subject to the 40 percent smoke opacity standard in section 2182(a)(1), unless at the time of the subsequent test it is plainly evident from a visual inspection that the vehicle is powered by a pre-1991 model-year engine.
- (6) Issue a copy of the citation to the driver of a 1993-1998 heavy-duty diesel-powered vehicle with a Low NOx Rebuild Engine upon determining by scan tool evaluation a violation of section 2011 (c)(1), title 13, California Code of Regulations.

NOTE: Authority Cited: Sections 39600, 39601, 43013, 43701, and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701, and 44011.6, Health and Safety Code. Section 305, Vehicle Code.

Amend section 2184, title 13, California Code of Regulations to read as follows:

§ 2184. Refusal to Submit to Inspection Procedure.

The refusal by an owner or driver of a vehicle to submit to the scan tool evaluation defined in section 2180.1, the test procedure in section 2182, or to the emission control system inspection in section 2183 constitutes a failure of the evaluation, test procedure, or inspection, respectively, unless the driver is cited by the California Highway Patrol for a violation of California Vehicle Code section 2813.

NOTE: Authority Cited: Sections 39600, 39601, 43013, 43701, and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701, and 44011.6, Health and Safety Code. Sections 305, 505, and 2813, Vehicle Code.

Amend section 2185, title 13, California Code of Regulations to read as follows:

§ 2185. Civil Penalty Schedule.

- (a) The owner of a heavy-duty vehicle that fails the scan tool evaluation, the test procedure, or the emission controls system inspection, including by refusal to submit, is subject to the following penalty schedule:

(1) Scan Tool Evaluation Violation Penalties

- (A) The owner of a vehicle that is cited for a violation of section 2011(c)(1), and for which demonstration of correction is provided and payment is made within 45 days from personal or certified mail receipt of the citation, shall pay a civil penalty of \$300. Schoolbuses registered in California are exempt from the \$300 civil penalty for the first violation only.
- (B) The owner of a vehicle who violates section 2011(c)(5) shall pay a civil penalty of \$500 in addition to the civil penalty for the violation of section 2011(c)(1).
- (C) The owner of a vehicle cited for a violation of section 2184 for refusing to submit to a scan tool evaluation shall be subject to a civil penalty of \$500.

(2) Heavy-Duty Vehicle Tampering and Opacity Violation Penalties

- (4A) The owner of a vehicle, other than a schoolbus, that is cited for the first time pursuant to section 2182 or 2183 and for which demonstration of correction is provided and payment is made within 45 days from personal or certified mail receipt of the citation, shall pay the minimum penalty of \$300.
- (2B) The owner of a vehicle that is cited for the first time pursuant to section 2184 for a refusal not pertaining to a scan tool evaluation, or that is cited for the first time pursuant to section 2182 or 2183 and for which demonstration of correction is not provided within 45 days from personal mail or certified mail receipt of the citation shall provide demonstration of correction and pay the minimum penalty of \$300 and the basic penalty of \$500 for a total of \$800. Schoolbuses are exempt from the \$300 minimum penalty for the first violation only.
- (3C) The owner of a vehicle that is cited pursuant to section 2182 or 2183 within 12 months from the issuance of the most recent citation for that vehicle shall within 45 days from personal or certified mail receipt of the

current citation provide demonstration of correction and pay the penalty of \$1,500 and the minimum penalty of \$300 for a total of \$1,800.

- (b) (1) No citation shall be issued to the owner of a heavy-duty vehicle powered by a pre-1991 model-year diesel engine on the basis of a measured smoke opacity exceeding 55 percent but not exceeding 69 percent, unless:
 - (A) the owner fails to provide a demonstration of correction within 45 days from personal or certified mail receipt of the notice of violation, or
 - (B) a notice of violation or citation has been issued for the vehicle in the preceding 12 months.
 - (2) The owner of a vehicle that is the subject of a notice of violation and for which demonstration of correction is provided within 45 days from personal or certified mail receipt of the notice of violation shall not be subject to a penalty for the violation.
 - (3) The owner of a vehicle that is initially subject to a notice of violation, but is cited after a demonstration of correction is not provided within 45 days from personal or certified mail receipt of a notice of violation, shall be subject to the penalty in section 2185(a)(2)(B).
 - (4) (A) Where a heavy-duty vehicle with a pre-1991 engine inspected in accordance with section 2181 has a measured opacity exceeding 55 percent but not exceeding 69 percent within 12 months of issuance of a notice of violation for which a demonstration of correction was timely provided within the applicable 45-day period, a citation shall be issued and the owner shall be subject to the penalty in section 2185(a)(2)(B).
 - (B) Where a heavy-duty vehicle with a pre-1991 engine inspected in accordance with section 2181 has a measured opacity exceeding 55 percent but not exceeding 69 percent within 12 months of issuance of a notice of violation for which a demonstration of correction was not timely provided within the applicable 45-day period, a citation shall be issued and the owner shall be subject to the penalty in section 2185(a)(3)(C).
- (c) If a vehicle fails the test procedure or an emission control system inspection one year or more after the date of its most recent failure, the owner of that vehicle shall be subject to the penalty schedule in section 2185(a)(4)(A) and (a)(2)(B).

- (d) When a vehicle is cited after a bona fide change of ownership between non-related persons or entities, the new owner shall be subject to the penalty schedule in section 2185(a)(~~42~~)(A) and (~~2B~~) if the only citations issued for the vehicle within the previous 12 months were issued prior to the change of ownership to the new owner.
- (e) An owner who has been cited twice or more for tampered emission controls on the same vehicle shall be subject to the penalty in section 2185(a)(~~32~~)(C), notwithstanding section 2185(c).

NOTE: Authority Cited: Sections 39600, 39601, 43013, and 44011.6, Health and Safety Code.
Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, and 44011.6, Health and Safety Code. Sections 305, 505, and 545, Vehicle Code.

Amend section 2186, title 13, California Code of Regulations to read as follows:

§ 2186. Demonstration of Correction and Post-Repair Test or Inspection.

- (a) Demonstration of Correction. The owner ~~may~~ must demonstrate correction of the vehicle by submitting to the Air Resources Board the following documents (1) or (2):
- (1) Where repairs are made at a repair facility, a repair receipt or a completed work order which contains the following information:
 - (A) Name, address, and phone number of the facility;
 - (B) Name of mechanic;
 - (C) Date of the repair;
 - (D) Description of component replacement(s), repair(s), and/or adjustment(s); and
 - (E) Itemized list of replaced component(s), including description of part, part number, and cost;
 - (2) Where the owner makes his or her own repairs outside of a repair facility,
 - (A) An itemized receipt for the parts used in the repair, and
 - (B) A statement identifying the date and nature of the repairs made;
- (b) Statement of Correction. The owner must also submit to the Air Resources Board the following documents (1) or (2) or (3):
- (31) Where the citation or notice of violation was based on a failure to meet the opacity standard applicable under section 2182, a smoke test report from a subsequent test showing that the repaired vehicle passed the applicable section 2182 standard along with a statement to that effect made under penalty of perjury by the person who conducted the subsequent test;
 - (42) Where the citation was based on a failure to pass an emission control system inspection as specified in section 2183, a statement by a person, under penalty of perjury, that the person has reinspected any components identified in the citation as defective or tampered and has determined that these components are in good working order; or

(3) Where the citation was based on a violation of the Low NOx Rebuild Kit installation requirement as specified in section 2011(c), a statement by a person, under penalty of perjury, that the person has conducted a scan tool evaluation and has determined that the Low NOx Rebuild Kit has been installed.

~~(b) In lieu of submitting the documents identified under section 2186(a), the owner may demonstrate correction of the vehicle by submitting it to an ARB post-repair test or an ARB post-repair inspection.~~

(c) Demonstration of Correction Form. For (a) and (b) above, the citee shall complete and attach a Demonstration of Correction Form (provided by the ARB) to demonstrate that the citee's vehicle has been repaired and is now in compliance.

(ed) The Air Resources Board shall require an ARB post-repair test or an ARB post-repair inspection whenever:

- (1) a submitted repair receipt or work order does not comply with (a) above;
- (2) a repair receipt or work order appears to be falsified; or
- (3) a second and subsequent failures of the test procedure or an emission control system inspection on the vehicle occur within a one-year period.

NOTE: Authority Cited: Sections 39600, 39601, 43013, 43701, 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701, and 44011.6, Health and Safety Code. Section 505, Vehicle Code.

Amend section 2192, title 13, California Code of Regulations to read as follows:

§ 2192. Vehicle Inspection Responsibilities.

- (a) The owner of a heavy-duty diesel-powered vehicle subject to the requirements of this chapter shall do all of the following:
 - (1) Test the vehicle for excessive smoke emissions periodically according to the inspection intervals specified in section 2193(a), (b), and (c).
 - (2) Measure the smoke emissions for each test using the test procedure specified in section 2193(e).
 - (3) Record the smoke test opacity levels and other required test information as specified in section 2194.
 - (4) Have the vehicle repaired if it exceeds the applicable smoke opacity standard specified in section 2193(e).
 - (5) Record the vehicle repair information as specified in section 2194.
 - (6) Conduct a post-repair smoke test to determine if the vehicle complies with the applicable smoke opacity standard.
 - (7) Record the post-repair smoke test results as specified in section 2194.
 - (8) If the vehicle does not comply with the applicable smoke opacity standard after the test required by section 2192(a)(7), make additional repairs to achieve compliance, and record the smoke test results as specified in section 2194.
 - (9) Ensure that Low NOx Rebuild Kits are installed in 1993 – 1998 heavy-duty diesel-powered vehicles with Low NOx Rebuild Engines as required by section 2011.
 - ~~(9)10~~ Keep the records specified in section 2194 for two years after the date of inspection.
 - ~~(10)1~~ Permit an Air Resources Board inspector to review the inspection records specified in section 2194 at owner/operator designated fleet locations by appointment.

NOTE: Authority Cited. Sections 39600, 39601, and 43701(a), Health and Safety Code.
Reference: Sections 39002, 39003, 39033, 43000, 43016, 43018, 43701(a), and 44011.6, Health and Safety Code.

Amend section 2194, title 13, California Code of Regulations to read as follows:

§ 2194. Record Keeping Requirements.

- (a) The owner of a vehicle subject to the requirements of this chapter shall record the following information when performing the smoke opacity testing:
 - (1) The brand name and model of the opacity meter.
 - (2) ~~The brand name and model of the strip chart recorder, if an SAE J1243 type smoke meter is employed.~~
 - (3) The dates of last calibration of the opacity meter and chart recorder.
 - (43) The name of the smoke meter operator who conducted the test.
 - (54) The name and address of the contracted smoke test facility or vehicle repair facility that conducted the test (if applicable).
 - (65) The applicable smoke opacity standard for the tested vehicle.
 - (76) Vehicle identification number, vehicle's engine year, engine make, and engine model, and test date. Fleet-designated vehicle identification numbers are also acceptable.
 - (87) The initial smoke test opacity levels (for three successive test readings).
 - (98) An indication of whether the vehicle passed or failed the initial smoke test.
 - (409) The post-repair test date.
 - (140) The post-repair smoke test opacity levels (for three successive test readings).
 - (121) An indication of whether the vehicle passed or failed the post-repair smoke test.
 - (132) For vehicles that have failed the smoke test and have been repaired, the vehicle repair information specified in section 2186(a), Title 13, California Code of Regulations.

- (b) The owner of a vehicle subject to the requirements of this chapter shall record the following information to demonstrate installation of Low NOx Rebuild Kits:
 - (1) A repair receipt or completed work order which contains the following information:

- (A) Name, address, and phone number of the facility performing the installation;
- (B) Name of the person performing the installation;
- (C) Date of the installation;
- (D) Description of Low NOx Rebuild Engine, including engine model and engine family number, and Low NOx Rebuild Kit installed.

NOTE: Authority Cited: Sections 39600, 39601, and 43701, Health and Safety Code.
Reference: Sections 39002, 39003, 39033, 43000, 43018, 43701, and 44011.6, Health and Safety Code.