

VOLVO CAR CORPORATION

EXECUTIVE ORDER A-018-0159 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 & 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED:

That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	TEST GROUP	VEHICLE TYPE	EXHAUST EMISSION STANDARD CATEGORY	USEFU (mi		IN- COMP (*=N/A or A/E=ex	MEDIATE USE LIANCE full in-use; h. / evap, iate in-use)	FUEL TYPE		
2009	9VVXV02.5U2T	Passenger Car	"LEV II" Ultra Low Emission Vehicle (LEV II	EXH / ORVR	EVAP	EXH	EVAP	Carallas		
* 1. July 100		<u> </u>	ULEV)	120K	150K	*	•	Gasoline		
No.		PECIAL FEATURES	EVAPORATIVE	EVAPORATIVE FAMILY (EVAF) DISPLACEMENT (L)						
1	TWC, HAFS, HO	2S, SFI, TC, CAC, OBD(P)	9VVXR0	9VVXR0130EV1						
•		*	9VVXR0	9VVXR0132EV2						
*		+				2.5				
*		*		•						

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations.

BE IT FURTHER RESOLVED:

That the exhaust and the evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50 Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's "NMOG Fleet Average" (PC or LDT) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

BE IT FURTHER RESOLVED:

That for the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model PC, LDT and MDV).

BE IT FURTHER RESOLVED:

The test group listed in this Executive Order is certified based on the manufacturer's reported emissions and attestation that it meets all applicable certification requirements currently in effect and enforceable for the 2009 model year, as described above. A January 16, 2007 Order currently enjoins the Executive Officer from enforcing any provision of California Health and Safety Code section 43018.5(b)(1) concerning certification to the requirements for 2009 and subsequent model passenger cars, light-duty trucks, and medium-duty vehicles adopted pursuant to AB 1493. (Document 606, Case No. 1:04-CV-06663-AWI-GSA, U.S. Dist. Ct. E. Dist. of CA (Fresno Div.).) If said injunction ceases to be in effect, the manufacturer will have 45 days from ARB notification to demonstrate compliance with AB 1493 requirements, including the determination of the greenhouse gas values for the test group listed in this Executive Order. Nothing in this Executive Order is intended to constitute enforcement of any requirement under AB 1493 for 2009 model year vehicles.

Vehicles certified under this Executive Order shall 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 ______ day of June 2008.

Annette Hebert, Chief

Mobile Source Operations Division

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles



ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

(For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

	NMOG FLEET NMOG @ RAF=* AVERAGE [g/mi] CH4 RAF = *		NMOG or	NMOG or CH4=methane: NMOG=non-CH4 organic gas; NMHC=non-CH4 hydrocarbon; CO=carbon monoxide; N HCHO=formaldehyde; PM=particulate matter; RAF=reactivity adjustment factor; 2/3 D [g/test]=2/3 day or												
CERT	STD	NMOG	NMHC	NMHC	NMHC hot-soak; RL [g/mi]=nunning loss; ORVR [g/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram ml=mile; K=1000 miles; F=degrees Fahrenheit; SFTP=supplemental federal test procedure											
0.036	0.036 0.038 CERT CERT		CERT [g/mi]	[g/mi]	CO [g/mi]		NOx [g/mi]		HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/mi]			
1		[g/mi]	[g/mi]		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
I take	@ 50K	0.012	*	0.040	0.3	1.7	0.02	0.05	•	8.	*	*	0.02	0.07		
	@ UL	0.014	*	0.055	0.3	2.1	0.02	0.07	*	11.	*	0.01	0.02	0.09		
154 C	50°F & 4K	0.035	•	0.080	0.4	1.7	0.02	0.05	*	16.	*	1	•	+		

CO [g/mi] @ 20°F & 50K		X 34 15		NMHC+N (comp	Ox [g/mi] osite)	CO [+NOx [US06]		g/ml] (06]	NMHC [g/mi]	+NOx [SC03]) CO [SC	
(4) 21	U F & 5UN	165,447		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	1.0	100	SFTP @ 4000 miles	*	*	*	*	0.05	0.14	0.6	8.0	0.05	0.20	0,5	2.7
STD	10.0		SFTP @ * miles	•	*		*	•	*	+	*	*	*	*	•

							d Refueling Vapor grams/galion) @ UL		
CERT	STD	CERT	STD	CERT	STD	CERT	STD		
0.33	0.50	0.44	0.65	0.01	0.05	0.06	0.20		
0.31	0.50	0.32	0.65	0.01	0.05	0.04	0.20		
*	*	•	•	*		+	•		
•	*	•	*	+	*	*	•		
	(grams/te CERT 0.33	0.33 0.50	(grams/test) @ UL (grams/te CERT STD CERT 0.33 0.50 0.44	(grams/test) @ UL (grams/test) @ UL CERT STD CERT STD 0.33 0.50 0.44 0.65	(grams/test) @ UL (grams/test) @ UL (grams/m CERT STD CERT STD CERT 0.33 0.50 0.44 0.65 0.01	(grams/test) @ UL (grams/test) @ UL (grams/mile) @ UL CERT STD CERT STD 0.33 0.50 0.44 0.65 0.01 0.05	(grams/test) @ UL (grams/test) @ UL (grams/mile) @ UL Recovery (grams/mile) CERT STD CERT STD CERT 0.33 0.50 0.44 0.65 0.01 0.05 0.06		

* = not applicable; UL=useful life; PC=passenger car; LDT=light-duty truck; MDV=medium-duty vehicle; ECS= Emission Control System; STD= Standard; CERT= Certification; LVW=loaded vehicle weight; ALVW=adjusted LVW; LEV=low emission vehicle; TLEV=transitional LEV; ULEV=ultra LEV; SULEV=super ULEV; TWC=3-way catalyst; ADSTWC=adsorbing TWC; WU=warm-up catalyst; OC=oxidizing catalyst; O2S=oxygen sensor; HO2S=heated O2S; AFS/HAFS=air- fuel ratio sensor / heated AFS; EGR=exhaust gas recirculation; AIR=secondary air injection; PAIR=pulsed AIR; MFI= multiport fuel injection; SFI=sequential MFI; TBI=throttle body injection; DGI=direct gasoline fuel injection; TC/SC= turbo/super charger; CAC=charge air cooler; OBD (F)/(P)=full/partial on-board diagnostic; DOR=direct ozone reducing; prefix 2=parallel; (2) suffix=series; CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85="85%" Ethanol Fuel;

2009 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	IN-I COMPI (*=N/A or A/E=exi	IEDIATE USE LIANCE full in-use; n. / evap. ate in-use)	PHASE-IN STD.	OBD II
					EXH	EVAP		
VOLVO	C30 T5	9VVXR0132EV2	1	2.5	*	*	SFTP	Partial
VOLVO	C70	9VVXR0132EV2	1	2.5	*	*	SFTP	Partial
VOLVO	S40 T5	9VVXR0132EV2	1	2.5		*	SFTP	Partial
VOLVO	S40 T5 AWD	9VVXR0132EV2	1	2.5	•	+	SFTP	Partial
VOLVO	S60 2.5T	9VVXR0130EV1	1	2.5	*	*	SFTP	Partial
VOLVO	S60 2.5T AWD	9VVXR0130EV1	1	2.5	*	*	SFTP	Partial
VOLVO	V50 T5	9VVXR0132EV2	1	2.5		*	SFTP	Partial
VOLVO	V50 T5 AWD	9VVXR0132EV2	1	2.5		*	SFTP	Partial