

#### **VOLVO CAR CORPORATION**

**EXECUTIVE ORDER A-018-0131** 

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			EXHAUST EMISSION STANDARD CATEGORY	IN- COMP (*=N/A or A/E=ex	MEDIATE USE LIANCE full in-use; h. / evap. iate in-use)	FUEL TYPE			
2005	5VVXV02.4S2N	Passenger Car	Super Ultra Low Emission Vehicle (SULEV)	EXH / ORVR	EVAP	EXH	EVAP		
- (1) T - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		-	· · · · · · · · · · · · · · · · · · ·	150K 150K		Α	E	Gasoline	
No.	ECS & S	PECIAL FEATURES	EVAPORATIVE F	EVAPORATIVE FAMILY (EVAF)					
1 TWC(2), HAFS, HO2S, SFI, DOR, OBD(F)			5VVXR01	5VVXR0130ZER					
TWC(2), 2HO2S, HAFS, SFI, DOR, OBD(F)			5VVXR01	5VVXR0124ZER					
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•		*	*						

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:

That the listed vehicle models are granted a baseline partial zero emission vehicle (PZEV) allowance of 0.2 pursuant to 13 CCR Section 1962(c). The listed vehicle models are granted a 0.0026 g/mi NMOG credit for all certification and inuse testing pursuant to 13 CCR Section 1961(a)(12) [direct ozone reduction].

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

Allen Lyons, 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.)

CERT	STD	NMOG CERT	NMHC CERT	NMHC STD	ml=mile; K	=1000 miles:					on; CO≕carbon actor; 2/3 D [g/ ueling vapor n at test procedu		rdiumai+  ram; mg=millio	gram
0.024	0.049	[g/mi]	[g/mi]	[g/mi]	CO	g/mij	NOx	[g/mi]	НСНО	[mg/mi]	PM [		Hwy NO	x [g/mi]
Life of the second second second second	0.504		(3)		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
	@ 50K	-		<u> </u>			•	•	•	•	*		•	
and the second	@ UL	0.008	*	0.010	0.2	1.0	0.01	0.02	•	4.	*		0.01	0.03
@	50°F & 4K	*	*	•	•	•			-		<del>                                     </del>		0.51	0.03

C	O [g/mi] 0°F & 50K			Ox [g/mi] oosite)		g/mi] oosite)		C+NOx [US06]	] CO [US	g/mi] 06]		+NOx [SC03]	CO [	g/mi] :031
	O F OL SOR		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	0.8	SFTP @ 4000 miles	*	•	. *	*	0.01	0.14	0.6	8.0	0.002	0.20	0.1	2.7
STD	10.0	SFTP @ * miles	٠	•	*	•	*	•	•	•	*	•	•	+

						On-Board Ref Recovery (gram	່ນeling Vapor s/gailon) @ ປL
CERT	STD	CERT	STD	CERT	STD		STD
0.30	0.35	0.27	0.35	0.01			<del> </del>
0.26	0.35	0.30					0.20
	*	*	*	0.01	0.05	0.01	0.20
*	*	*		*			*
	(grams/te	0.30 0.35	(grams/test) @ UL         (grams/test)           CERT         STD         CERT           0.30         0.35         0.27	(grams/test) @ UL         (grams/test) @ UL           CERT         STD         CERT         STD           0.30         0.35         0.27         0.35	(grams/test) @ UL         (grams/test) @ UL         (grams/m           CERT         STD         CERT         STD         CERT           0.30         0.35         0.27         0.35         0.01	(grams/test) @ UL         (grams/test) @ UL         (grams/mile) @ UL           CERT         STD         CERT         STD           0.30         0.35         0.27         0.35         0.01         0.05	(grams/test) @ UL         (grams/test) @ UL         (grams/mile) @ UL         On-Soard Ref Recovery (grams/mile) @ UL           CERT         STD         CERT         STD         CERT           0.30         0.35         0.27         0.35         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 catalyst; 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/liquefled natural gas; LPG=liquefled petroleum gas; E85="85%" Ethanol Fuel

### 2005 MODEL YEAR: VEHICLE MODELS INFORMATION

				010				
MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	IN-I COMPI A/E=exi	IEDIATE USE LIANCE full in-use; 1. / evap. ate in-use)	PHASE-IN STD.	08D II
			Ĺ		EXH	EVAP		
VOLVO	S60 FWD	5VVXR0130ZER	1	2.4	A	E	SFTP	Full
VOLVO	V70 FWD	5VVXR0130ZER	1	2.4	A	E	SFTP	Full
VOLVO	\$40 2.41	5VVXR0124ZER	2	2.4	A	E	SFTP	Full
VOLVO	V50 2.4i	5VVXR0124ZER	2	2.4	A	E	SFTP	Full