## **VOLVO CAR CORPORATION**

EXECUTIVE ORDER A-018-0180 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 1 of 2

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.

MOD YEA		TEST GROUP			VEHICLE TYPE (PC=passenger car; LDT=light MDV=medium-duty vehicle; ALV loaded vehicle weight; LVW=lo weight; GVW=gross V	-duty truck; /W=adjusted aded vehicle	EXHAUST EMISSIO STANDARD CATEGO (LEV=low emission vehing TLEV= transitional LEV ULEV= ULEV)	DRY cle; V;	EXHAUST & ORVR / EVAPORATIVE USEFUL LIFE (UL) (miles)  FUEL TYPE (CNG/LNG=compre- liquefied natural g LPG=liquefied petro					
201	3 [	DVVXJ03.2U2N			PC .DT: ≤ 6000# GVW, 3751-5750 .DT: 6001-8500# GVW, 3751-5	LEV II ULEV		120K / 150K	Gasoline					
No.		EVAPORATIVE FAMILY (EVAF)				SPECIAL FEATURES & EMISSION CONTROL SYSTEMS (ECS			TWC/OC=3-way/oxidizing catalyst; ADSTWC=adsorbing TWU=warm-up catalyst; NAC=NOx adsorption catalyst; SCFUSCR-N= selective catalytic reduction-urea/ammonia;					
1	1 DVVXR0130EB6			1	2TWC(2), 2	HO2S, 2AFS, S	FI, OBD(F)	NH3O	NH3OC=SCR-U/SCR-N ammonia slip catalyst; CTOX/PTOX= continuous/periodic trap oxidizer, HO2S/O2S=heated/oxygen sensor; AFS/HAFS=air-fuel ratio sensor / heated AFS; NOXS= NOx sensor; RDQS=reductant quality sensor, EGR=exhaust gas recirculation; EGRC=cooled EGR; AIR=secondary air injection; PAIR=pulsed AIR; SFI/MFI= sequential/ multiport fuel injection; DFI=direct fuel injection; TC/SC= turbo/super charger;					
2	DVVXR0130ET3			2	100000000000000000000000000000000000000	\$ . To ★ . Box		sensor						
3		*				C. S	2 7 1 51 51 2 514 2	recircu						
4		*				1 No. 1 Ave.	推工工具的现在分词	DFI=d						
5		*			at constitutions.	11 6 to 12		CAC=charge air cooler; OBD (F)/(P)/(B)= full/partial/both on-board diagnostic; DOR=direct ozone reducing; prefix 2=parallel; (2)						
6		*		6	# # # # # # # # # # # # # # # # # # #	an taken		suffix=	series;					
EVA No.		CS lo.	ENGINE SIZE (L		VEHICLE MAKES & MODELS		S SUBJECT TO SFTP DS ARE <u>UNDERLINED</u>	ABBREVIATIONS:						
1		1	3.2			<u>70 3.2</u>								
1		1	3,2			VOLVO: (LDT	,751-5,750# LVW) XC60 3.2 AWD; XC70 3.2 AWD							
2		1 3.2			VOLVO: (LDT 3,751-5,750# LVW) XC90 3.2									
2		1 3.2			18 10 8571	VOLVO: (LDT 3,751-5,750# ALVW) XC90 3.2 AWD								

That the exhaust, 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.

	OG FLI		NMOG @ CH4 R	) RAF= * AF = *	NMOG or NMHC STD	CH4=methane NMOG=non-CH4 organic gas NMHC=non-CH4 hydrocarbon CO=carbon monoxide NOx=oxides of nitrogen HCHO=formaldehyde PM=particulate matter RAF=reactivity adjustment factor 2/3 D [g/test]=2/3 day or idiurnal+hot-soak RL [g/mi]=running loss ORVR [g/gallon dispensed]=on-board refueling vapor recovery g=gram											
PC/LD		LDT2	NMOG	NMHC		mg=millig	ram mi:	=mile K=1	000 miles		=degrees l	Fahrenheit	SFTP=st	upplemental	federal test p	rocedure	
STD		STD	CERT	CERT [g/mi]	[g/mi]	CO [g/mi]		NOx [g/mi]			HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/mi]		
0.035		0.043	[g/mi]			CERT	STD	CERT	STE	)	CERT	STD	CERT	STD	CERT	STD	
7.27		@ 50K	0.016	*	0.040	0.4	1.7	0.03	0.05	5	*	8	*	*	0.03	0.07	
		@ UL	0.023	*	0.055	5 0.4	2.1	0.03	0.07	.07 *		11	*	0.01	0.03	0.09	
	@ 50	0°F & 4K	0.028	*	0.080	0.4	1.7	0.02	0.05	5	*	16	*	*	*	*	
CO [		SFTP 1 = @ 4K (SULEV, ULEV, LEV) or 50K (Tier 1, TLEV)			NMHC+NOx [g/mi] CO [g/mi] (composite)				NMHC+NOx C [g/mi] [US06]		CO [g/mi] [US06]				[g/mi] C03]		
@ 20°F	@ 20°F & 50K		SFTP 2 = @ UL (Tier 1, TLEV)		CERT	STD	CERT	STD	CERT	ST	TD CI	ERT ST	D CE	RT ST	D CERT	STD	
CERT	1.3	S		TP @ 4K	*	*	*	*	0.08	0.	14 1	1.2 8	0 0.	03 0.2	0.7	2.7	
STD	10.0		SF	TP @ UL	*	* *		*	*	* *		* 1		* *	*	*	
	E	VAPORA	TIVE FAM	LY 1	EVAPORATIVE FAMILY 2				EVAPORATIVE FAMILY 3					EVAPORATIVE FAMILY 4			
@ UL	3-D	2-D	RL	ORVR	3-D	2-D	RL	ORVR	3-D	2-0	D R	L OR	/R 3-	D 2-I	RL	ORVR	
CERT	0.40	0.39	0.01	0.03	0.34	0.38	0.01	0.02	*	*	,	* *	*	*	*	*	
STD	0.50	0.65	0.05	0.20	0.65	0.85	0.05	0.20	*	*	,	* *	*	*	*	*	

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).

## FORD MOTOR COMPANY

EXECUTIVE ORDER A-018-0180 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

BE IT FURTHER RESOLVED: The test group listed in this Executive Order is certified conditionally on the manufacturer providing data to demonstrate compliance with California's greenhouse gas fleet average emission standard (CA GHG Standard) specified in Title 13, California Code of Regulations, (13 CCR) Section 1961.1 and the incorporated California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks. and Medium-Duty Vehicles, amended March 29, 2010 (CA Test Procedures). The manufacturer has elected, under 13 CCR Section 1961.1(a)(1)(A)(ii) and under Section E.2.5.1(ii) of the CA Test Procedures, to demonstrate compliance with the CA GHG Standard by demonstrating compliance with the National greenhouse gas program (National GHG Program). Therefore, the test group listed in this Executive Order is certified conditionally further on the manufacturer complying with the requirements specified in said provisions in 13 CCR, and Sections E.2.5.1(ii) and H.4.5(b) and H.4.5(c) of the CA Test Procedures (among other things, concerning data and information submission, timing, and format as specified by the Executive Officer). Failure to comply with the certification requirements to demonstrate compliance with CA GHG Standard by demonstrating compliance with the National GHG Program under said provisions in 13 CCR and CA Test Procedures may be cause for the Executive Officer to revoke the Executive Order. Vehicles in the revoked Executive Order shall be deemed uncertified and subject to penalties authorized under California law. Notwithstanding the requirement herein, a manufacturer that becomes, after MY2009, a large-volume manufacturer, as defined in 13 CCR Section 1900, is not required to comply with the CA GHG Standard until the beginning of the fourth model-year from becoming a large-volume manufacturer. Additionally, notwithstanding the requirement herein, a small-volume manufacturer, independent low-volume manufacturer, or intermediate volume-manufacturer, as defined in 13 CCR Section 1900, is not required to comply with CA GHG Standard during model-years (MY) 2012 through 2015.

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 23 day of January 2012.

Annette Hebert, Chief

Mobile Source Operations Division