

HYUNDAI MOTOR COMPANY

EXECUTIVE ORDER A-254-0236

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			STA	CHAUST EMISSION NDARD CATEGORY	USEFU (mil		COMPI (*=N/A or A/E=exh	MEDIATE USE LIANCE full in-use; n. / evap. ate in-use)	FUEL TYPE
2012 CHY	CHYXV02.0XW5	Passenger Car		'LEV II" Ultra Low ssion Vehicle (LEV II	EXH / ORVR	EVAP	EXH	EVAP	Gasoline (Tier 2
	CHTAVUZ.UAWS	Passenger Cal		ULEV)	120K 150K				Unleaded)
No.	ECS & SF	100	EVAPORATIVE	FAMILY (EV	DISPLACEMENT (L)				
1	TWC, HO2S(2)		CHYXR0	155PDX					
*							0.07		
*	sV andreas (reasS.ed)	Ponning I nee		Date District Control	C VALUE OF				2
*	(pollegizering) yes-cos	(gramsimile) @ UL • Pr		AU @ paskemerg) •	, fs.	an electrical			

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 50⁰ 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 conditionally on the manufacturer providing test data to determine the greenhouse gas (GHG) emissions for the listed test group, expressed in grams per mile of carbon dioxide-equivalent (g/mi CO2-e), as required in section E.2.5.2 of the California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as amended August 4, 2005 (the Test Procedures). Manufacturer shall provide the required data within 45 days after the date of the Executive Order unless (a) an extension is granted by the Executive Officer, or (b) the manufacturer demonstrates to the satisfaction of the Executive Officer that it is exempt from determining GHG emissions for the listed test group under section E.2.5.3 (Intermediate Volume Manufacturers) or E.2.5.4 (Small Volume Manufacturers) of the Test Procedures. Failure to comply with the certification requirement to determine the GHG emissions for the listed test group 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 therein, the manufacturer is not required to determine GHG emissions for any medium-duty vehicles in the listed test group that are not medium-duty passenger 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 2011.

Annette Hebert, Chief

Mobile Source Operations Division



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	CH4=methane; NMOG=non-CH4 organic gas; NMHC=non-CH4 hydrocarbon; CO=carbon monoxide; NOx=oxides of nitrogen; or HCHO=formaldehyde; PM=particulate matter, RAF=reactivity adjustment factor; 23 D [g/test]=23 d g/drest]=23 D [g/test]=23 D [g/te													
CERT STD NMOG NMHC				NMHC STD	mi=mile; K=	hot-soak; RL [g/mi]=running loss; ORVR [g/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram mi=mile; K=1000 miles; F=degrees Fahrenheit; SFTP=supplemental federal test procedure											
			RT CERT	100 100 100 100 100 100 100 100 100 100	CO [g/mi]		NOx [g/mi]		HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/mi]				
0.021	0.035	[g/mi]	[g/mi]	[g/mi]	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD			
	@ 50K	0.025	*	0.040	0.4	1.7	0.03	0.05	*	8.	*	*	0.01	0.07			
	@ UL	0.031	183433	0.055	0.5	2.1	0.03	0.07	*	11.	*	0.01	0.01	0.09			
@	50°F & 4K	0.052	*	0.080	0.3	1.7	0.02	0.05	*	16.	*	* ************************************	CHYOCKEZ	tres			

CO [g/mi] @ 20°F & 50K			NMHC+NOx [g/mi] (composite)		CO [g/mi] (composite)		NMHC+NOx [g/mi] [US06]		CO [g/mi] [US06]		NMHC+NOx [g/mi] [SC03]		CO [g/mi] [SC03]	
			CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	0.7	SFTP @ 4000 miles	*	*	*	*	0.03	0.14	0.2	8.0	0.03	0.20	0.3	2.7
STD	10.0	SFTP @ * miles	*	*	*	*	*	*	*	*	*	*	*	*

Evaporative Family	3-Days Diurna (grams/te			nal + Hot Soak test) @ UL		ng Loss nile) @ UL	On-Board Refueling Vapor Recovery (grams/gallon) @ UL		
and the second s	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
CHYXR0155PDX	0.32	0.50	0.43	0.65	0.03	0.05	0.04	0.20	
* 4	· a ruting	residuên unio	CON LEVES	BUTUACO U	*	O ROWER	L SUNSINGIOU L	5 U .c∗10.	
*	*	*	*	*	*	*	A STATE A STATE OF THE STATE OF	est comet no	
says and the backette	lavadê ênerine	*	itenathan s	st land street	house to remise	irra suiton	meun art han to	radya adi	

^{* =} 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;

2012 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	IN- COMP (*=N/A or A/E=exi	MEDIATE USE LIANCE full in-use; h. / evap. iate in-use)	PHASE-IN STD.	OBD I
					EXH	EVAP	DESE RESO	CAUST
HYUNDAI	SONATA	CHYXR0155PDX	1	2	a a pluce	X	SFTP	Full