

### **HYUNDAI MOTOR COMPANY**

EXECUTIVE ORDER A-254-0113

New Passenger Cars, Light-Duty Trucks
and Medjum-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 (mil		IN- COMP (*=N/A or A/E=ex	MEDIATE USE LIANCE full in-use; h. / evap. late in-use)	FUEL TYPE		
2005	5HYXV02.7FL9	Passenger Car	Low Emission Vehicle (LEV)	EXH / ORVR	EVAP	EXH EVAP		Gasoline		
				100K	100K	•	•	(Indolene)		
No.		ECIAL FEATURES	8888	EVAPORATIVE FAMILY (EVAF) DISPLACEMENT (L)						
1	2WU-TWC,TWC	, 2HO2S(2), SFI, OBD(F)	5HYXR0	5HYXR0150PEE						
•										
*		*				2.7				
à.		•					•			

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).

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 2320 day of July 2004.

Allen Lyons, Chief

Mobile Source Operations Division

**EXECUTIVE ORDER A-254-0113** 

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.)

	AVERAGE [q/mi]   CH4 RAF = *   NMOG or					CH4=methane; NMG=non-CH4 organic gas; NMHC=non-CH4 hydrocarbon; CQ=carbon monoxide; NOx=oxides of nitrogen; MOG or HCH0=formaldehyde; PM=particulate matter; RAF=reactivity adjustment factor; 2/3 D [g/test]=2/3 day diumal+ hot-soak; RL [g/mi]=running loss; ORVR [g/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram										
CERT	STD	NMOG	NMHC	NMHC	hot-soak; R mi≖mile; K	L [g/mi]≖run: =1000 miles;	ning loss; OF F≃degrees F	tVR [g/gallor ahrenheit; S	n dispensed]= iFTP=suppler	on-board ref	ueling vapor n al test procedu	ecovery; g≖g ire	ram; mg=milliq	gram		
0.050	0.000   0.040		CERT CERT [9/mi]		CO [g/mi]		NOx [g/mi]		HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/mi]			
15 min 15 page 17 min 17 min 18 min 18		(9,)	(9,)		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
	@ 50K	0.021	*	0.075	0.5	3.4	0.01	0.2	0.4	15.	*	•	0.01	0.3		
	@ UL	0.026	*	0.090	0.6	4.2	0.02	0.3	0.6	18.	*	*	0.02	0.4		
@	50°F & 4K	0.083	*	0.150	0.4	3.4	0.01	0.2	0.4	30.	*	*	*	٠		

	[g/mi]			Ox [g/mi] posite)		g/mi] oosite)		:+NOx [US08]	CO [	[g/mi] 306]		+NOx [SC03]	CO   [SC	g/mi] :03]
@ 20	of & 50K		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	5.9	SFTP @ 4000 miles	٠	*	•	*	0.03	0.14	3.3	8.0	0.02	0.20	0.7	2.7
STD	10.0	SFTP @ * miles	•	•	•	*	•	•	•	*	•	*	*	*

Evaporative Family		al + Hot Soak est) @ UL	2-Days Diurn (grams/te			ng Loss nile) @ UL	On-Board Refueling Vapor Recovery (grams/gallon) @ UL			
·	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
5HYXR0150PEE	0.6	2.0	1.8	2.5	0.02	0.05	0.02	0.20		
*	*		*	*	*	•		*		
*	*	*	*	*	*	•	*	•		
*	•	*	•		•	•	*	*		

<sup>\*=</sup> 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 C2S; 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)=fuil/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

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	INTERMÉDIATE IN-USE COMPLIANCE ("=N/A or full in-use; A/E=exh. / evap. intermediate in-use)		PHASE-IN STD.	OBD II
				·	EXH	EVAP		
HYUNDAI	SONATA	5HYXR0150PEE	1	2.7	* *	*	SFTP	Full