



# Air Resources Board



**Matthew Rodriguez**  
*Secretary for  
Environmental Protection*

**Mary D. Nichols, Chairman**  
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**Edmund G. Brown Jr.**  
*Governor*

March 1, 2013

Deputy Administrator Bob Perciasepe  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

RE: California State Nonroad Engine Pollution Control Standards; Off-Highway Recreational Vehicles and Engines; Request for Authorization; Opportunity for Public Hearing and Comment, 78 Federal Register 724 (January 4, 2013); Docket ID No. EPA-HQ-OAR-2012-0742

Dear Acting Administrator Perciasepe:

I am writing to provide further information regarding your evaluation of California's protectiveness determination, under Clean Air Act Section 209(e), related to 2008 and later model year off-highway recreational vehicles (OHRVs) certified for sale in California versus those certified for sale federally. This letter supplements our prior submittals now contained in the subject Docket.

California has set stringent hydrocarbon exhaust emissions limits for off-highway motorcycles and all-terrain vehicles (ATVs) that are much lower than federal emissions limits. ARB set a hydrocarbon certification standard at 1.2 g/bhp-hr that was adopted in 1994 and implemented in 1997, while the federal government adopted a hydrocarbon and NOx certification standard at 2.0 g/bhp-hr in 2002, to be fully effective in the 2007 model year. The California standard is focused solely on hydrocarbons because these are the predominant emissions from OHRV exhaust; we believe our standard is more stringent than the federal standard because it provides a lower effective hydrocarbon emissions limit.

As CARB stated previously (November 19, 2004 letter to Michael Leavitt), EPA acknowledged its rule governing OHRVs would exempt 29% of the market that are competition vehicles (67 FR at 68265). We stated that this percentage could increase as manufacturers and users avail themselves of the opportunity to claim more of their

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California Environmental Protection Agency

Deputy Administrator Bob Perciasepe  
March 1, 2013  
Page 2

vehicles are being used solely for competition. In addition, while federal standards do not limit the use of two-stroke vehicles, ARB standards do.

Two-stroke off-highway motorcycles and ATVs generally are not compliant with California numerical emissions standards, but are allowed to be sold in California to ensure competition vehicles would be available in the marketplace. These vehicles are subject to usage restrictions and cannot be operated in ozone non-attainment areas in California during the summer. This usage restriction is part of vehicle registration programs in California.

The usage restriction for two-stroke vehicles in California provides important emissions benefits. The usage restrictions have provided a foundational and powerful disincentive to purchasing high emission two-stroke vehicles for operation in California. As a result, engine manufacturers have offered few two-stroke models for sale in California, and those sold in California are not to be used in the summer in non-attainment areas. To illustrate, in 2002, before the usage restrictions went into effect, roughly 30% of all off-highway motorcycles and ATVs sold in California were high emission two-stroke vehicles. By implementing usage restrictions, in 2012 less than five percent of these vehicles were high emission two-stroke vehicles. This change in sales patterns results in a reduction of four to seven tons per day of Reactive Organic Gas (ROG) emissions statewide in California in the summer, as shown in Appendix A to this letter.

One potential issue raised in the subject Notice is whether California's continued allowance for non-emission compliant motorcycles carrying red-stickers to ride during non-peak ozone seasons raises a protectiveness concern regarding 2008 and later model year OHRVs. We do not believe this is a concern because less than 1% of off-highway motorcycle and ATV activity was driven by these non-compliant vehicles, and our regulations prohibit this activity in non-attainment areas in the ozone season.

In summary, the evidence remains strong that as a whole, California's OHRV program remains as protective in the aggregate as the federal program, even after full phase-in. This determination clearly meets the arbitrary and capricious test that U.S. EPA must apply to ARB's determination.

Deputy Administrator Bob Perciasepe  
March 1, 2013  
Page 3

If you need additional technical information on this item, please contact Michael Carter, Chief of the Emission Research and Regulatory Development Branch of the Mobile Source Control Division, at (626) 575-6632. You may address legal questions to David Aron Livingston, Assistant Chief Staff Counsel, at (916) 327-8406.

Sincerely,

A handwritten signature in black ink, appearing to read "Alberto Ayala". The signature is fluid and cursive, with the first name "Alberto" and last name "Ayala" clearly distinguishable.

Alberto Ayala, Ph.D., M.S.E.  
Deputy Executive Officer

cc: (via electronic mail, w/attch)

Ms. Suzanne Bessette  
United States Environmental Protection Agency

Mr. Michael Carter, Chief  
Emission Research and Regulatory Development Branch  
Mobile Source Control Division

Mr. Aron Livingston, Assistant Chief Counsel  
Office of Legal Affairs

Appendix A. California Reactive Organic Gas Emissions Benefits of ARB Usage Restrictions on Two-Stroke Non-Compliant Off-Highway Recreational Vehicles

Statewide Summer (CY2012) by Model Year: ATV + OHMC Exhaust and Running Loss

Model Year	Two Stroke		Four Stroke		Percent G2 Activity
	Activity (miles/year)	ROG (TPD)	Activity (miles/year)	ROG (TPD)	
2000 and prior	24537919	2.74	28657421	0.24	46%
2001	6517487	0.73	13687673	0.05	32%
2002	6738049	0.75	18896453	0.07	26%
2003	4024651	0.45	32774868	0.12	11%
2004	3060405	0.34	38657791	0.13	7%
2005	2869169	0.32	48126665	0.16	6%
2006	2113550	0.24	52636842	0.16	4%
2007	1481212	0.17	49384267	0.15	3%
2008	640125	0.07	27485505	0.08	2%
2009	701304	0.08	12271063	0.03	5%
2010	104335	0.01	4618675	0.01	2%
2011	164870	0.02	5022999	0.01	3%
2012	309181	0.03	7258968	0.02	4%
<b>Scenario: 2003+ newer have 2002 G2/G4 Split</b>					
2003	9567875	1.07	27231644	0.10	26%
2004	10846731	1.21	30871465	0.10	26%
2005	13258917	1.48	37736917	0.12	26%
2006	14235102	1.59	40515290	0.13	26%
2007	13225025	1.48	37640454	0.11	26%
2008	7312664	0.82	20812966	0.06	26%
2009	3372816	0.38	9599552	0.03	26%
2010	1227983	0.14	3495027	0.01	26%
2011	1348846	0.15	3839024	0.01	26%
2012	1967719	0.22	5600431	0.01	26%
<b>CY2012 Emissions</b>		<b>7</b>			
<b>CY2012 Emissions if 26% G2 in MY 2003-2012</b>		<b>14</b>			
<b>Benefit of Program (ROG tpd)</b>		<b>7</b>			
<b>Percent of Activity in 2008+G2 in 2012</b>			<b>0.5%</b>		

Deputy Administrator Bob Perciasepe  
March 1, 2013  
Page 5

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(w/attachment)

Ellen Peter, EO/OLA  
Paul Jacobs, ED  
Michelle Shultz-Wood, MSEB  
Greg Binder, MSEB  
Legal Chron