

**American Lung Association of California
Center for Community Action and Environmental Justice
Coalition for Clean Air
Earthjustice
Sierra Club California**

November 14, 2016

Ms. Mary D. Nichols, Chair
Air Resources Board
1001 I St.
Sacramento, CA 95814
via electronic submittal

Re: Proposed Amendments to the Evaporative Emissions Requirements of Small Off-Road Engines

Dear Chair Nichols and Board Members:

The undersigned organizations urge the Board to promptly adopt the proposed amendments to the evaporative emissions requirements for small off-road engines. We submit these comments to emphasize two points: (1) pollution from small off-road engines (SOREs) poses substantial health effects, both in its contribution to ozone formation as well as toxic emissions affecting owners and operators, and (2) absent the amendments, the Board's standards will continue to be ineffective in reducing that pollution. Air Resource Board staff and members of industry have spent more than a decade engaged in rule-makings and testing units to better understand the efficacy of design certification. After multiple studies and years of work, it is clear that the current regulation fails to adequately protect public health and requires revisions.

A. Health Effects from Small Off-Road Engines

Small off-road engines—lawn-mowers, leaf-blowers, and the like—pose serious health risks. First, while cars, trucks, buses, and power plants often garner the majority of attention when it comes to smog pollution, small off-road engines contribute significantly to poor air quality across California. The staff report notes that SOREs will emit 45 tons of reactive organic gas and toxic air contaminant emissions this year, surpassing the emissions from 10,000 gas stations.

These emissions, when combined with nitrogen oxides, contribute to elevated smog levels across the state, particularly in the extreme non-attainment zones in the San Joaquin Valley and South Coast Air Basins. Exposure to ozone in those elevated

concentrations result in “decreased lung function and respiratory symptoms,” as well as “more serious health effects” such as “asthma.”¹

Small off-road engines make a particularly large contribution to ozone pollution in the South Coast Air Basin.² The region recently recorded the worst ozone pollution in the country.³ As the U.S. EPA has observed, “[m]ore than 25 million people in California breathe air that does not meet the 2008 ozone standards.”⁴ In the future, SORE emissions will (absent further regulation) make up a greater proportion of ozone-forming pollutants in the South Coast, as regulation of light-duty vehicles improves.⁵ In order to meet the Clean Air Act’s mandatory requirements for the South Coast, those emissions will need to be substantially reduced.⁶ A necessary first step is ensuring that the Board’s existing standards are meaningfully applied and enforced.

SORE also produce substantial toxic pollution—benzene, which causes neurological, immunologic, and hematologic effects, as well as 1,3 butadiene and acetaldehyde, which are carcinogens.⁷ Evaporative toxic emissions are of particular concern given that they predominantly occur while SOREs are being stored, in garages often directly attached to homes.⁸ And landscape and garden workers who operate SORE equipment for hours daily are disproportionately exposed to toxic hazards from that equipment; many of those workers are of low-income, minority groups already disproportionately exposed to pollution-related and other health hazards.⁹ SOREs thus pose substantial health risks, requiring the Board’s urgent attention.

B. The Proposed Amendments Are Required to Give Effect to Board’s Emissions Standards.

¹ *Mississippi v. EPA*, 744 F.3d 1334, 1339 (D.C. Cir. 2013).

² California Environmental Protection Agency, Air Resources Board, Staff Presentation: Public Workshop to Discuss Proposed Changes to the Small Off-Road Engine Regulations (Nov. 2 & 4, 2015) (“November Workshop Presentation”) at 6 (noting that 40% of 2015 SORE Emissions occurred in South Coast)

³ Memorandum from Janet G. McCabe to Regional Administrators (October 1, 2015) at 7 (titled “Implementing the 2015 Ozone National Ambient Air Quality Standards, and stating that “South Coast still has the highest 2012-2014 8-hour design value in the nation at 102 ppb).

⁴ *Ibid*

⁵ Staff Report at xii-xiii (“[A]bsent any new regulations SORE emissions ... by 2031 would be 77 percent of those from light-duty vehicles”).

⁶ *See* South Coast Air Quality Management District Revised Draft 2016 Air Quality Management Plan (October 2016) at 4-40 (relying on ARB’s adoption of “tighter exhaust and evaporative emission standards,” and “enhance[ment of] current emissions standards” for SORE, for are to progress towards meeting air quality standards).

⁷ Staff Report at 84; Jamie Banks & Robert McConnell, “National Emissions from Lawn & Garden Equipment (U.S. EPA 2015).

⁸ Staff Report at 84

⁹ *See* *Death on the Job: The Toll of Neglect, a National State-by-State Profile of Worker Safety and Health in the United States* (A.F.L.-C.I.O. 2016 25th ed.) at 3, 9 (noting high proportion of Latino injuries and fatalities in landscaping industry, and noting that “chemical exposures pose serious risk to workers, but are largely unregulated”).

The Board's validation testing indicates that current small engines are overwhelmingly failing to meet the Board's emissions standards. Equipment with model-years between 2008 and 2015 consistently fails to meet the standards.¹⁰ As a consequence, "more than 50 percent of the SORE equipment sold in California fails to meet ARB's diurnal emission standards."¹¹ The standards are, in other words, bypassed more often than they are observed. And the failures are not minimal; in some cases, testing measured emissions more than fourteen times the prescribed limits.¹²

Section 2754.2(f) of the regulations requires a determination, based on the validation studies, as to whether the certification methods are "achieving ARB's overall emission reduction goals"; the only reasonable conclusion is that they are not. While both performance and design tested units demonstrated non-compliant emissions, those test results—and Executive Order holders' failure to improve compliance during the five years between the Board's verification studies—strongly supports the proposal's requirement of direct measurement of emissions from design-certified units. To forego such measurement, on a record of persistent and dramatic non-compliance, even where Order holders are conducting emission tests, would essentially abandon the standards entirely.

The enormity of the failure rate demonstrated in the validation studies demands prompt action. And given the decade or more such equipment is likely to remain in use, the non-conforming equipment currently being sold in California is likely to persist for years going forward, frustrating efforts to reduce—or even meaningfully assess—pollution from small off-road engines. Absent the proposed amendments air districts cannot reasonably rely on the existing standards within their Clean Air Act implementation plans, given those standards' demonstrated failure to secure compliance.¹³ The improved testing and enforcement provisions in the proposed amendments are a necessary step towards making the Board's current standards effective, both as a practical and a legal matter.

For all of those reasons, the Board should promptly approve the proposed amendments. Thank you for your time and attention.

Sincerely,

Kathryn Phillips
Sierra Club California

¹⁰ Staff Report at 10-11

¹¹ Staff Report at 85

¹² *Ibid*, at ix

¹³ See *Nuclear Energy Institute, Inc., v. Environmental Protection Agency*, 373 F.3d 1251, 1272 (D.C. Cir. 2004) ("Only in Superman Comics' Bizarro world, where reality is turned upside down ... could the [agency] reasonably conclude that a measure that is at least four times as likely to fail as to success offers [the requisite degree of] confidence." (citation omitted and alterations in original)).

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