



April 9, 2021

Dorothy Fibiger  
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By email to [SORE2021@arb.ca.gov](mailto:SORE2021@arb.ca.gov)

#### COMMENTS TO CARB ON SMALL OFF-ROAD ENGINES RULEMAKING

Dear Ms. Fibiger,

Thank you for the opportunity to comment on the Small Off-Road Engine rulemaking in response to the March 24, 2021, workshop. We appreciate the staff's work on reducing this significant source of air pollution. We view the transition to zero emission equipment for the SORE category as necessary for eliminating harmful pollution to protect the health of workers and residents and support attainment of clean air standards.

California is home to the nation's most difficult air pollution challenges, with mobile sources of pollution by far the leading contributor to unhealthy air in the state. Our cars, trucks, buses and off-road equipment such as lawn mowers, leaf blowers and generators are all important pollution sources to assess and reduce. California's leading clean air programs have spurred innovation for decades and must continue to seek new pathways to clean, healthy air for all residents. Updating the SORE requirements to transition to zero emissions to reflect the latest data, shifting market and emissions inventory is critical to this goal.

As noted in the March 24 CARB workshop presentation, emissions of combined ozone-forming reactive organic gases (ROG) and oxides of nitrogen (NOx) from the SORE category of engines will surpass

emissions from cars this year. CARB has also found high failure rates in evaporative emissions testing of SORE, preventing previously claimed emission reductions from being realized.

#### Zero Emission Requirement Deadline

Given the combination of exhaust and evaporative emission impacts from this sector and growing awareness of failure rates coupled with the growing availability of zero emission options today, **we support the proposal to bring exhaust and evaporative emission standards to zero in 2024 for all SORE except for generators**, a timeline that is technically feasible and brings significant benefits. We are concerned by the proliferation of petroleum-fueled generators, which cause significant air pollution, and urge CARB to seek ways to make all generator sales zero-emission sooner than the proposed 2028.

The transition to zero emission technologies is a critical pathway to pursue. According to CARB's own research, operating gas-powered equipment has significant air quality and occupational impacts:

- One hour of operation for a gas-powered mower generates emissions equivalent to driving a 2017 Toyota Camry from Los Angeles to Las Vegas;
- One hour of operation from the best-selling leaf blower generates emissions equivalent to driving from Los Angeles to Denver;
- Long-term exposure to certain exhaust compounds emitted by gasoline powered lawn and garden equipment may increase cancer risk by up to 80 excess cases per one million operators exposed.

Despite widespread adoption of zero emission technology at the household level, commercial users are slower to transition, making a forward-looking rule necessary.

#### Eliminate Variances

We support the proposed repeal of the variance provision in existing regulations. Allowing variances uses valuable staff time, puts deep-pocketed companies at an unfair advantage over smaller manufacturers, and, most importantly, undermines the efficacy of emission standards that are vital to delivering healthy air to Californians.

#### Product Stewardship

CARB must strive to look at the full impact of its regulations and plan for requisite equipment at the end of life, including battery recycling or repurposing. An action plan should be created and adopted in conjunction with the industry to ensure product stewardship with a successful end of life process.

#### Dust Emissions

Please continue to examine dust/Particulate Matter emissions caused by SORE, as its proportion of contribution to the emission inventory and indirect sources continues to rise.

We appreciate that CARB staff are working to bring forward new strategies to reduce the impacts of the SORE category on our air and health and believe that acting quickly to address this sector will benefit the health of local residents, workers, children and others in close proximity to SORE operations. We support the transition to zero emission requirements through the proposed rulemaking to ensure these protections are realized and ongoing failures do not continue to impact local community health.

Respectfully Submitted,

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The Climate Center

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