



March 20, 2017

Chairman Mary Nichols
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Subject: Comments on ACC Criteria Pollution Emission Controls and Real-World Performance

Dear Chairman Nichols and members of the Board:

On behalf of the undersigned organizations, we are writing to express our support for the continued implementation and strengthening of California Air Resources Board (CARB) criteria pollution emission standards. Within the Advanced Clean Cars (ACC) program, we view smog-forming and particle emission limits on conventional passenger vehicles as a critical driver of public health protection and improvement as the fleet transitions to zero emission technologies. We also believe that directing staff resources and attention to strengthening the real-world benefits of these standards is vital, especially for the health of communities most impacted by near roadway pollution exposures.

California faces some of the most difficult air pollution challenges in the United States, and is home to six of the ten most polluted American cities for ozone and seven of ten for particle pollution, according to the American Lung Association's 2016 *State of the Air* report. Particle pollution is linked to increased risk of death due to respiratory and cardiovascular causes, increased risk of death to infants and children, heart attacks, strokes and increased ER and hospitalizations to children for asthma as well as more intense asthma attacks.¹ Communities disproportionately impacted by near-roadway pollution exposures have the most to gain from the ability of strong emission controls to deliver real-world clean air benefits.

As the California Air Resources Board considers the results of the Mid-Term Review (MTR) of the Advanced Clean Cars standards, we offer the following comments in support of improving air quality and public health in California and the 13 states following California's Low Emission Vehicle (LEV) standards. These goals can be achieved by maintaining strong direction on existing standards and ensuring driving conditions, new technologies or other factors are not inadvertently degrading air quality:

- **Maintain the 1 milligram per mile particle pollution standard for 2025.** The MTR provides ample evidence and support for maintaining California's current 1 mg/mile particle pollution standard (under the Federal Test Procedure (FTP)) which is planned to be phased in starting in 2025. We strongly support maintaining this direction and also encourage the board to continue exploring cost-effective opportunities for achieving the standard earlier or the deployment of gasoline particle filters as needed to advance emission reductions and associated health benefits.

¹ American Lung Association. State of the Air 2016. www.stateoftheair.org

- **Develop stronger in-use particle pollution controls for next round ACC.** As noted in the MTR, manufacturers are working to control particle pollution emissions to meet the 1mg/mile FTP standard, but more work needs to be done to ensure reductions in real-world driving scenarios reflected under the US06 test procedure. We support staff’s recommendation for a review and tightening of the current 6mg/mile US06 test procedure particle limit to better control real-world emissions. (We note that the EU already requires diesel LDVs to meet a particle number standard of 6×10^{11} particles/km roughly equivalent to a gravimetric standard of 0.5mg/km or 0.8mg/mile. Starting this year, automobile manufacturers are required to start complying with the same particle number limit for Euro 6 GDI with full compliance by 2020. China is considering adopting a similar limit as part of its China 6 standard by July 1, 2020² and India as part of its Bharat 6 standard by April 1, 2023.)³
- **We support actions by CARB to ensure in-use performance of emissions controls, including for Plug-in Hybrid Electric Vehicles (PHEVs).** We applaud the staff’s research on emission increases in “high power” cold starts when the internal combustion engines of certain “blended” PHEVs are called upon for immediate power during electric-only operations. In some cases, first generation PHEVs were shown to generate greater daily smog-forming emissions than comparable conventional vehicles. Given the expected growth in the PHEV market across vehicle platforms, we encourage additional work to ensure that miles driven by vehicles credited under the ZEV program aren’t actually contributing to greater health burdens.

These comments are made in support of ongoing evaluation and strengthening of LEV criteria emission controls to ensure that the air quality improvements needed in the most pollution-impacted communities in California and beyond are truly realized. Our organizations stand ready to work with the board and staff to ensure all communities are protected through strong and reliable air quality programs.

Sincerely,

Bonnie Holmes-Gen
Senior Director, Air Quality and Climate Change
American Lung Association in California

Bill Magavern
Policy Director
Coalition for Clean Air

John Shears
Research Coordinator
Center for Energy Efficiency & Renewable Technologies (CEERT)

David Reichmuth, PhD
Senior Engineer, Clean Vehicles Program
Union of Concerned Scientists

Michelle Kinman
Clean Energy Advocate
Environment California

Simon Mui, PhD
Director, CA Vehicles and Fuels, Energy & Transportation Program
Natural Resources Defense Council

Kathryn Philips
Director
Sierra Club California

² <http://www.chinafaqs.org/blog-posts/china%E2%80%99s-air-pollution-standards-will-drive-technology-innovation>, http://transportpolicy.net/index.php?title=China:_Light-duty:_Emissions

³ http://transportpolicy.net/index.php?title=India:_Light-duty:_Emissions