Union of Concerned Scientists

SIERRA CLUB CALIFORNIA

AMERICAN LUNG ASSOCIATION of California

March 22, 2006

Electronic submittal to
http://listserv.arb.ca.gov/major/comm/email.php

Ms. Annette Heber
Ms. Shawn Daley
Mr. Paul Henderick
California Air Resources Board
9480 Telstar Avenue, Suite 4
El Monte, California 91731

RE: Proposed Amendments to the Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines

Dear Ms. Heber, Ms. Daley and Mr. Henderick:

We are writing to you on behalf of the Union of Concerned Scientists, Natural Resources Defense Council, American Lung Association of California, and Sierra Club California to comment on CARB's proposed amendments to the verification procedures for emission control retrofits.

We appreciate the staff's hard work in reviewing the ongoing problem of elevated nitrogen dioxide (NO_2) emissions from retrofit devices. Despite our many concerns about the health effects of NO_2 emissions, we are in general agreement with the staff proposal due to the need to maintain the broadest possible market for retrofit technologies. This need for retrofit technologies is especially crucial in the short term due to the important diesel regulations, especially in the off-road sector, that will be under consideration by the board.

Concerns about NO_2 Emissions from Catalyzed Traps

According to the staff report, the current generation catalyzed passive filters increase nitrogen dioxide (NO_2) emissions by 200 to 300 percent compared with a baseline engine. Thus, the passive traps trade-off increasing NO_2 pollution for reductions in

particulates. Current generation catalyzed filters provide an added benefit of reducing hydrocarbon (HC) emissions.[1]

We have two key concerns about the public health consequences from the increase in NO_2 from current generation passive traps. First, the staff report indicates that under the most likely scenario, summertime ozone concentrations in Southern California would increase by one percent on the worst days. The report estimates that a reduction in HC of roughly 10 to 30 tons per day would be required to offset the increase. The South Coast AQMD is already struggling to identify the emissions reductions needed for ozone attainment, and increased ozone from catalyzed traps can push attainment even further into the future.

Second, we are concerned about the potential for toxic hot spots from NO_2 pollution. Under a "worst case" scenario, the staff report indicated that emissions from 20 idling school buses come perilously close to exceeding the one-hour ambient NO_2 standard of 250 ppb. Exposure to NO_2 has been associated with serious adverse health effects, especially for children.

Trap Market Should Be Robust

Despite our concerns about NO_2 emissions, we continue to support the broadest possible market for diesel retrofit technologies. A diverse market should drive manufacturers to provide effective products for a wide range of engines. With upcoming regulations on construction equipment and other off-road engines, California needs a robust set of technologies available for these engines. At the same time, trap manufacturers should receive appropriate market signals, rewarding them for producing the cleanest technologies.

Support for Proposed NO_2 Limits

We support CARB's proposal to change the NO_2 limit to ensure a continued market for passive traps. We agree with CARB that the benefits of lower diesel PM emissions outweigh the adverse impacts of slightly higher ozone exposure and NO_2. Specifically, we support CARB's amendment to allow traps to produce NO_2 emissions equivalent to 30 percent of engine out NOx through 2008, falling to 20 percent in January of 2009.

Support "Plus" Rating with Amendment

We recommend that CARB implement a "plus" designation for traps that do not increase any NO_2. CARB's current proposal would allow traps that meet the 2009 NO_2 requirement early to be labeled as a "plus" control. However, given the health impacts of increased NO_2, we believe only traps that hold NO_2 levels constant should be granted the "plus" designation.

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[1] Relative to spark-ignited engines, diesel engines have inherently low HC emissions, and there is technology available to reduce HC from active traps.

The plus system is beneficial because it provides good market signals to retrofit manufacturers to develop systems with the lowest emissions while maintaining flexibility for state board and local air districts in choosing technologies. While "plus" technologies would be a high priority for some fleets, like school buses, we recognize that they will not be feasible in every situation. CARB and the air districts should have flexibility to determine whether "plus" controls are needed for specific applications or geographic areas. Therefore, we do not recommend that "plus" technologies automatically set the standard for BACT.

Additional Recommendations

We also ask the Board to direct staff to provide bi-annual updates on trap performance (including toxics, NO_2, particulate matter, and ultrafines), especially as the retrofit market grows and 2007 compliant engines come on the market.

Thank you for the opportunity to comment and we look forward to working with you in the future.

Sincerely,

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