



SIERRA CLUB
CALIFORNIA

Medical Alliance
For Healthy Air



September 1, 2004

Dr. Deborah Drechsler, Ph.D
California Air Resources Board
Research Division
P.O. Box 2815
Sacramento, CA 95812-2815

RE: Support Proposed Revisions To California's Ambient Air Quality Standards for Ozone

Dear Dr. Drechsler:

This letter is to communicate the strong support of the American Lung Association of California and its medical section, the California Thoracic Society, along with Environment California, the Steven and Michele Kirsch Foundation, the National Parks Conservation Association, the Merced/Mariposa County Asthma Coalition, Environmental Defense, the Medical Alliance For Healthy Air, the Community Medical Centers in Fresno, the Fresno Metro Ministry, and Sierra Club California for the proposed revisions to California's ambient air quality standard for ozone. Adopting a new and health-protective 8-hour standard for ozone and retaining the current 1-hour standard is necessary to protect all communities in California from both short-term peak exposures and longer-term exposures that contribute to respiratory illnesses, impaired lung function and growth, hospitalizations, emergency room visits, asthma attacks and premature death.

As demonstrated by the CARB staff report, research findings from both human exposure and animal studies have clearly shown that the current California Ambient Air Quality Standards are not sufficient to protect public health, including children, with an adequate margin of safety as required by SB 25 (Escutia) the Children's Environmental Health Protection Act. Substantial evidence exists of both short and long-term adverse health effects at levels meeting the current standards.

The proposed new standards would benefit the millions of Californians with respiratory illnesses, including children and adults with asthma. Asthma rates have increased dramatically nationally and in California, and are a special problem in the San Joaquin Valley where the asthma prevalence rate is three times larger than the national average. People with asthma already suffer from chronically inflamed airways that constrict further when they inhale irritants. Ozone air pollution can make their airways even more reactive and inflamed. Recent research has linked dramatic increases in school absences to high ozone days. CARB staff has estimated that on a statewide basis, 3.3 million school absence days would be avoided annually if the current levels of ozone were reduced to attain the proposed standard. This is just one example of how meeting the proposed new ozone standards would benefit public health, improve the quality of life for children, and reduce the costs of pollution related-illnesses in California.

CARB staff has also estimated that attaining the proposed ozone standards would prevent 640 premature deaths, 3,800 hospitalizations for respiratory disease, 130 emergency room visits for children under 18 and 2.6 million restricted activity days in adults *each year*. These health benefits are likely an under-estimate given that the health assessment left out important health endpoints such as the effects of ozone on asthma exacerbation and long-term changes in lung function.

Following are our specific comments on the proposal:

1) We strongly support establishment of a new 8-hour average California standard for ozone. The proposed 8-hour average of 0.070 ppm, not to be exceeded, is clearly needed to protect public health. Multi-hour chamber studies provide clear evidence of adverse health effects in healthy human subjects at concentrations of 0.08 ppm. A standard of 0.070 ppm is the highest level that could be considered to provide a margin of safety.

2) We strongly support retention of the 1-hour average standard of 0.09 ppm ozone, not to be exceeded. Neither the 1-hour nor the 8-hour standard can stand alone. Both are needed to provide protection against short-term peaks, and longer-term exposure that can contribute to respiratory irritation and reduction in lung function. Studies have demonstrated changes in lung function and adverse respiratory effects in healthy adult exercisers, as well as increased medication use and emergency room visits for people with asthma from short-term exposure at peak levels.

3) We strongly support the “not to be exceeded” form of the standard. The methodology for evaluating compliance with the standard is critical to the ability of the standard to protect public health. Standards are set at levels that will protect public health with an adequate margin of safety. Public health would not be protected with “rounding up” methods that allow concentrations to exceed the level of the standard, such as with the federal ozone standards. Also, multiple exceedances of the standard cannot be tolerated due to the public health risk evident at levels just above the level of the proposed standards.

4) **The proposed new ozone standards are especially justified given the conservative approach taken in determining populations at risk.** The staff report's conclusions are much narrower than the evidence supports, particularly in citing that those individuals most at risk are those who spend "significant periods of time outdoors working or exercising." Persons with asthma, seniors, and those with chronic lung diseases such as COPD start out with chronic inflammation or decreased lung function that places their health at risk by exposure to ozone regardless of their activity level. As EPA concluded in 1996, "functional effects in these individuals with reduced lung function may have greater clinical significance than comparable changes in healthy individuals." (1996 Ozone Criteria Document, p.9-36).

Adopting the proposed new ozone standards will ensure that the state's air quality goals reflect the most recent scientific research on air quality and health and will ensure that vulnerable populations including children are adequately protected. In addition, adoption of these standards will continue California's history of national leadership in the field of air quality improvement.

Thank you for the opportunity to comment on the proposed new California Ambient Air Quality Standards For Ozone. We believe the State must move ahead and adopt these standards to ensure the best level of health protection for all communities in California.

Sincerely,

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