

The Clean Air Act Tells EPA to Strengthen the Ozone Standard



December 2010

Essentials

- **The Clean Air Act requires EPA to protect public health by setting official limits (the national air quality standards) for ozone in the air we breathe. EPA is reviewing the standard for ozone because the current standard fails to protect the health of millions of Americans. Congress explicitly required EPA to regularly review and set the standards to provide that protection.**
- **The nation needs a much tighter national air quality standard of 60 parts per billion to protect the health of those most at risk—children, teens, seniors, and people with chronic lung diseases like asthma.**

Forty years ago this month, a bipartisan Congress strengthened the Clean Air Act to provide much needed protection to the health of millions of Americans from the most widespread and dangerous outdoor air pollutants. Congress directed the U.S. Environmental Protection Agency to set official limits, called National Ambient Air Quality Standards, on the amount of ozone and five other pollutants that could be in the air. Congress explicitly directed them to base those standards on what is needed to protect human health.

Congress recognized then that ozone pollution is a serious health threat. Newer research shows it to be even more dangerous than previously thought. Ozone burns the lungs and airways, causing them to become inflamed, reddened, and swollen. Children and teens, senior citizens, and people with lung diseases like asthma, chronic bronchitis, emphysema, and others are particularly vulnerable to the health effects of ozone. Outdoor workers and exercisers are also at higher risk. When inhaled even at low levels, ozone can cause chest pain and cough, aggravate asthma, reduce lung function, and increase emergency room visits and hospital admissions for respiratory problems. **Research shows that breathing ozone can shorten human life—can kill—at levels currently considered safe.**¹

Ground-level ozone is one of the nation's most widespread air pollutants and threatens the health of millions of people. EPA estimates that over 187.3 million people (2000 Census) in 650 counties would be protected from unhealthy levels of ozone if the standard is set at 60 parts per billion (ppb).

The science is clear that the current ozone standard fails to protect public health. The Clean Air Scientific Advisory Committee, EPA's independent science advisors, reviewed the evidence from over 1,700 studies of the health impacts of ozone. They concluded unanimously that the ozone standard should be set between 60-70 parts per billion, 8-hour average, to protect human health. The medical and scientific community also endorsed this conclusion.

To protect the health of children, the elderly and other sensitive groups, EPA should set the ozone standard at the low end of the range – 60 ppb. Within the range of 60 to 70 ppb, we believe that a standard at the lower end of the range, 60 ppb, will provide the strongest protection for public health. Groups that have called for a 60 ppb ozone standard include: American Academy of Pediatrics, American Lung Association, American Medical Association, American Public Health Association, American Thoracic Society, Asthma and Allergy Foundation of America, EPA's Children's Health Protection Advisory Committee, Physicians for Social Responsibility and many others.

Cleaning up ozone can save thousands of lives each year. EPA estimates that between 4,000 and 12,000 lives could be saved each year by cleaning up ozone pollution to 60 ppb. In addition, a 60 ppb standard will prevent 58,000 asthma attacks and 21,000 hospital and emergency room visits annually.²

Air quality standards must be strong enough to protect sensitive groups, not just average healthy individuals. Under the Clean Air Act, EPA must set national air quality standards for ozone that protect public health, including the health of children, older adults and people with lung diseases like asthma, with an adequate margin of safety. Children, the elderly, individuals suffering from chronic lung disease, people who exercise or work outdoors are particularly vulnerable.

The Clean Air Act requires EPA to base its decision *solely* on the need to protect public health. In 2001, the Supreme Court unanimously ruled that protecting public health was the sole factor EPA should consider in setting the standard.

To follow the law as Congress intended, EPA cannot keep the current standard. In 2008, EPA disregarded the recommendations of their own panel of expert scientists and physicians, the Clean Air Scientific Advisory Committee, to set a standard that was much weaker than the scientists had unanimously recommended. That decision was so contrary to the evidence that the Committee took the unusual step of writing the EPA to protest the agency's ozone decision as being flatly contrary to its unanimous recommendation. These scientists notified the Administrator that they "*do not endorse the new [2008] primary ozone standard as being sufficiently protective of public health.*" (Emphasis in the original)³

Furthermore, EPA must reconsider the 2008 standards because of the intervening decision of the D.C. Circuit in *American Farm Bureau Federation v. EPA*, 559 F.3d 512 (D.C. Cir. 2009). There the Court rejected EPA's rationales for refusing to adopt stronger standards for particulate matter – rationales that in several cases were similar or identical to those relied on by EPA in 2008 in rejecting more protective ozone standards.

Retaining the current standard would ignore a decade of science and recklessly subject millions of Americans to unsafe levels of ozone pollution. The Clean Air Act requires that EPA review the science regularly to determine the safe levels. Just as everyone wants their doctor basing their treatment on up-to-date scientific understanding, EPA must keep these essential standards up to date to protect public health.

All Americans deserve to breathe clean air and are counting on the Clean Air Act for cleaner air in their communities. Congress should support EPA's enforcement of the law.

¹ The complete analysis of the research is contained in U.S. Environmental Protection Agency. *Air Quality Criteria for Ozone and Related Photochemical Oxidants*. 2006. Report no. EPA/600/R-05/004aF. Available at <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?id=149023#Download>. Selected studies on these specific effects include these: Gent JF, Triche EW, Holford TR, Belanger K, Bracken MB, Beckett WS, Leaderer BP. Association of Low-Level Ozone and Fine Particles with Respiratory Symptoms in Children with Asthma. *JAMA* 2003; 290:1859-1867. Desqueyroux H, Pujet JC, Prosper M, Squinazi F, Momas I. Short-Term Effects of Low-Level Air Pollution on Respiratory Health of Adults Suffering from Moderate to Severe Asthma. *Environ Res* 2002;89:29-37; Burnett RT, Brook JR, Yung WT, Dales RE, Krewski D. Association between Ozone and Hospitalization for Respiratory Diseases in 16 Canadian Cities. *Environ Res* 1997;72:24-31. Medina-Ramón M, Zanobetti A, Schwartz J. The Effect of Ozone and PM₁₀ on Hospital Admissions for Pneumonia and Chronic Obstructive Pulmonary Disease: a national multicity study. *Am J Epidemiol* 2006; 163(6):579-588. Bell ML, Dominici F, and Samet JM. A Meta-Analysis of Time-Series Studies of Ozone and Mortality with Comparison to the National Morbidity, Mortality, and Air Pollution Study. *Epidemiology* 2005; 16:436-445. Levy JI, Chermersynski SM, Sarnat JA. Ozone Exposure and Mortality: an empiric Bayes metaregression analysis. *Epidemiology* 2005; 16:458-468. Ito K, De Leon SF, Lippmann M. Associations Between Ozone and Daily Mortality: analysis and meta-analysis. *Epidemiology* 2005; 16:446-429.

² U.S. EPA (2009) *Summary of the updated Regulatory Impact Analysis (RIA) for the Reconsideration of the 2008 Ozone National Ambient Air Quality Standard (NAAQS)* Table S1.2.

³ Letter from Dr. Rogene Henderson, Chair, Clean Air Scientific Advisory Committee to Stephen L. Johnson, Administrator, U.S. Environmental Protection Agency, re Clean Air Scientific Advisory Committee Recommendations Concerning the Final Rule for the National Ambient Air Quality Standards for Ozone, EPA –CASAC 08-009, April 7, 2008.