

BRIEF ANALYSIS

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The EPA's Dirty Little Secrets

Do the nation's current clean air standards need to be made more stringent to save the lives of asthmatic children? President Clinton and the Environmental Protection Agency (EPA) say yes. But many mayors, governors and members of Congress of both parties say more evidence is needed before standards are tightened.

Nonetheless, on June 25 the president endorsed the stringent clean air standards for particulate matter (soot) and ground-level ozone (smog) proposed by the EPA in November 1996. In support of his decision, he cited the EPA's claims that the new standards will save the lives of asthmatic children.

However, at the behest of many of the nation's mayors and governors, some Congressional Democrats are leading the fight to stop implementation of the standards until more evidence is compiled on the health effects of soot and smog.

The opposition is rational. Congress has the power to stop implementation of the new standards until more evidence is compiled. Before they permit the EPA to proceed, all members of Congress should understand the scientific and health problems the standards pose.

Clean Air Background. The EPA is responsible for setting safe levels of certain airborne pollutants, including particulate matter and ground-level ozone. Once the standards are set, the EPA is responsible for monitoring and enforcing them. Over the last 25 years the levels of these pollutants have declined substantially. Although the EPA credits the fall to its implementation of clean air laws passed by Congress, levels of these pollutants actually fell *more* rapidly throughout the 1960s, prior to the first Clean Air Act.

The EPA periodically reviews its standards for six pollutants to see if they are adequate to maintain what it

believes to be a healthy environment. In its most recent review, it concluded that stricter standards for soot and smog are necessary to protect human health, particularly that of asthmatic children.

- Currently the EPA limits the concentrations of airborne particulate matter to particles 10 microns (10 millionths of a meter) in diameter and limits ozone levels to .12 parts per million (ppm).
- The new regulations would reduce the limit to particles 2.5 microns in size and ozone concentrations to .08 ppm.

However, many scientists disagree with the EPA's assessment, arguing that the current standards are satisfactory.

Dirty Little Secret #1: Ozone Isn't Affecting Asthmatic Children. Environmental groups argue that tighter ozone standards are needed because the asthma rate in the United States has increased due to declining air quality. Yet while asthma has been rising, ground-level ozone rates have fallen dramatically over the last 20 years. As the figure shows:

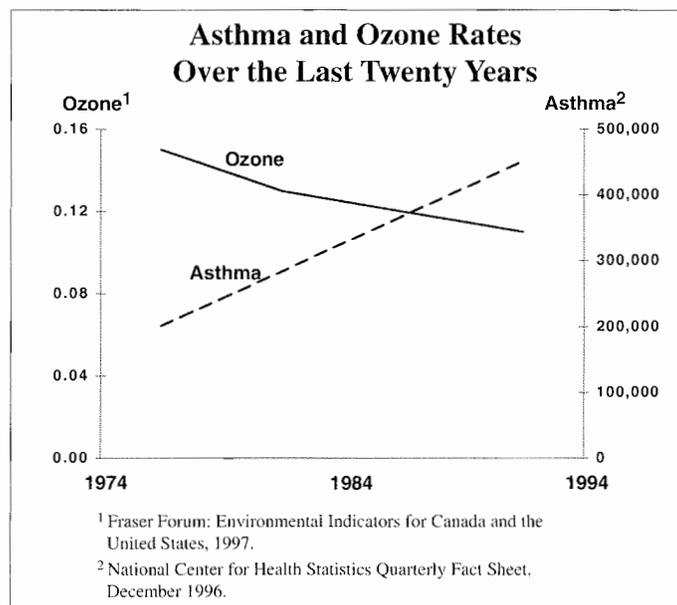
- Levels of ozone have decreased by 18.5 percent

since 1974.

- Asthma rates have been increasing in all industrialized nations, rising by 45 percent in the United States in the last decade alone.

So what is causing the increase?

- Comprehensive studies by the European Federation of Asthma and Allergy Associations found that sedentary lifestyles in Western developed countries and indoor air problems are the primary causes of the recent increase in asthma.
- A July 1996 study by the National Institute of Allergy and Infectious Diseases concluded that by far the leading cause of asthma is an allergic reaction to cockroach droppings and carcasses.



Dirty Little Secret #2: EPA Scientists Do Not Support the New Standards. Even members of the EPA's own Clean Air Scientific Advisory Committee (CASAC) disagree on the need for stricter standards. Although Administrator Carol Browner stated that the science supporting the EPA's decision to raise the clean air standards is indisputable, CASAC was split on what standards to set, if any.

- Eight committee members thought no standards are justified because there is no clear evidence that setting a standard would yield tangible health benefits.
- The remaining 13 members of the panel were split over whether current standards are too strict, not strict enough or just about right.

Dirty Little Secret #3: Scientists Cannot Review the Data. The public may never truly know whether the stricter standards will protect public health since the two Harvard researchers who conducted the primary studies used to justify the standards won't release their data to anybody — not even the EPA. While scientists generally recognize that scientific research needs to be peer reviewed, the Harvard researchers claim their data — paid for by taxpayers — is proprietary.

Dirty Little Secret #4: New Standards May Not Save Lives. The EPA first estimated that the soot standard alone would annually save more than 40,000 people from premature deaths, primarily the elderly with chronic lung disease. The EPA later revealed that this figure is the total number of lives estimated to be saved by *all* clean air regulations. Then it claimed that 20,000 lives per year would be saved by the new soot standard — 50 percent fewer than its original estimate. In April, three months after proposing the standard, the EPA once again reduced its estimate after an outside researcher found a simple mathematical error in one of its key studies. This time the EPA reduced the estimated lives saved by another 25 percent, to 15,000.

If, as Administrator Browner claimed, the new standards were based on the most thorough peer-review process ever, how could a simple statistical error get through? The discovery of the error has led some analysts to question the EPA's entire statistical analysis. Dr. Kay Jones, former senior adviser on air quality at the President's Council on Environmental Quality during the Carter administration, discovered the EPA's error and then completely reanalyzed the EPA's estimates. He concluded that only 840 lives would be saved by the EPA's particulate matter standard.

Dirty Little Secret #5: New Standards Could Actually Cost Lives. Ground-level ozone has health benefits that the EPA ignored: it screens out potentially deadly ultraviolet radiation. According to a Department of Energy study of the proposed standards, the required ozone reduction would:

- Increase malignant skin cancers, causing 25 to 50 new deaths a year.
- Cause as many as 260 new cases of cutaneous melanoma and 11,000 new cases of nonmelanoma skin cancer.
- Cause between 13,000 and 28,000 new incidences of cataracts each year.

More ozone isn't always better, but the EPA should account for the health costs of its proposed standards as well as their benefits. Only then can it evaluate the trade-offs involved in implementing the new standards.

In this case, cleaner air imposes a high price in terms of human health. Some estimate that the rules will eliminate at least 220,000 jobs and cost the average household about \$1,200 per year in discretionary spending. Since the American Thoracic Society has concluded that poverty is the number one risk factor for asthma, the rules will worsen health by increasing unemployment and lowering household income.

This is also the conclusion of researchers Dr. Wendy Gramm, former administrator of the Office of Regulatory Affairs in the U.S. Office of Management and Budget (OMB), and Susan Dudley, vice president and director of environmental analysis at Economists, Inc. Applying OMB estimates that for every \$9 million to \$12 million decline in aggregate personal income one life is lost and EPA cost estimates for the rules, Gramm and Dudley found that the new ozone standard alone could result in 7,000 deaths per year.

Conclusion. Most health care professionals follow the Hippocratic oath: "First, do no harm." The EPA's dirty little secrets are that the proposed standards pose serious threats to human health for, at best, speculative gains. Until these secrets are illuminated, Congress should "do no harm" by not allowing them to be implemented.

This Brief Analysis was prepared by NCPA environmental policy analyst H. Sterling Burnett.