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Anthony Oliver, PhD [aoliver@aqmd.gov](mailto:aoliver@aqmd.gov)  
SCAQMD Air Quality Specialist

Dear Dr. Oliver and All Others Concerned:

I have been asked by Professor James E. Enstrom (UCLA) to express my opinion to you-all concerning “particulate matter of the size 2.5 micrometers in diameter (**PM2.5**) as being “*unequivocally the direct cause* of at least 2,100 deaths per year in Southern California”.

By way of introduction, I am author/coauthor of more than 650 peer-reviewed scientific publications and among the “640 most-cited authors of all time” by my peers—as determined by **Google Scholar** parameters. My fields of research interest as a physician-scientist include genetics, comparative and evolutionary genomics, gene nomenclature, drug metabolism, pharmacogenetics, adverse drug reactions, personalized medicine, environmental contaminants and disease, pediatrics, developmental biology, teratogenesis, neurobiology, endocrinology and cancer. I am board-qualified in both California and Ohio in the practice of medicine and have been Principal Investigator (PI) on numerous basic science and clinical research projects, some of which are still in preparation for publication. At the University of Cincinnati, I was Founder of the **Center for Environmental Genetics** (1992-98), which is still going strong today in its 25th year (current PI is Professor Shuk-mei Ho); I continue to participate in CEG’s Community Outreach and Education Program (COEP) directed by Dr. Erin Haynes. I also have spearheaded the worldwide standardized nomenclature system (based in London) for all genes and gene families in all living organisms.

Particulate matter has been studied extensively—by many scientists, including by one of the leaders in this field, **Joel Schwartz**, who applied longitudinal data analysis to environmental health. There was a controversy about his work on PM10 and mortality; these findings were therefore re-analyzed twice by the Health Effects Institute (funded 50% from the US EPA and 50% from automotive manufacturers). Whereas the magnitude of the effect was somewhat diminished on this re-analysis, “a small effect” was still seen, although statistically not significant [ <http://pubs.healtheffects.org/getfile.php?u=21> ]. Most disturbingly, the variability among and between studies was very substantial. Explanations for this variability were suggested to include “the degree of temporal smoothing used in the original analyses, number of smoothed terms in the models, and degree of nonlinear collinearity (concurvity) among the smoothed terms.” The relative importance of these and other explanations remains highly equivocal.

**Joel Schwartz** also used these methods to examine the relationship of PM2.5 with mortality. He and others have estimated an association to be “a ~10% increase in mortality for every 10  $\mu\text{g}/\text{meter}^3$ —**above** (but not below) 10  $\mu\text{g}/\text{meter}^3$ . At 20  $\mu\text{g}/\text{meter}^3$ , it was possible to measure a slight increase in mortality in a study of 10,000 deaths. However, at levels in the range of 10–15  $\mu\text{g}/\text{meter}^3$ , the study would require a very large cohort in order to gain sufficient statistical power to detect “an unequivocal effect”.



The PM2.5 relationship was assessed considerably before the 21st century, when several cities (e.g. Allegheny County, Pittsburgh) suffered from levels above 20 µg/meter<sup>3</sup>. **However, these levels of air pollution no longer exist, anywhere in the United States today.** This is mainly because many of the antiquated power plants have been converted to natural gas or have shut down. Thus, I do not believe that particulate matter air pollution is a major problem any longer in this country—although it remains a challenge in certain cities of China and India.

In conclusion, existing evidence on “the relationship between PM2.5 and total mortality in California” (and indeed, nationally) is **absolutely underwhelming** for SCAQMD to claim that “PM2.5 **causes** 2,100+ deaths per year in the South Coast Air Basin”. It is categorically unethical to use that claim as the primary public health justification for a 2016 Air Quality Management Plan that **imposes a burden of \$38.2 billion in additional compliance costs** on the Southern California taxpayers and their economy.

This is yet-another glaring example of “public policy being pushed forward—despite any solid scientific evidence supporting the proposed policy.” As a physician-scientist who is proud of scientific integrity in all his published research for more than five decades, I find this behavior despicable and I denounce it. I urge you to take these comments seriously.

Sincerely,



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**Sent:** Sunday, October 09, 2016 3:58 PM

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**Subject:** Southern California air quality regulators mulling hike in taxes for smog reduction

Article [below] is from today's [The Los Angeles Times](#).

Although the problem of 'substantial amounts of particulate matter of <2.5 micrometer in diameter (PM2.5) in southern California smog' had been a serious concern 20-40 years ago, the air has been quite dramatically cleaned up since ~1995. Consequently, any epidemiological claims that "more regulations and cleaner air will prevent an estimated 2,100 deaths" ... is not substantiated by scientific evidence.

Here is yet-another example of "putting the cart before the horse." In other words, U.S. governmental policy—leading to additional regulations and a waste of taxpayer money (\$28 billion)—is again overruling/superseding scientific studies, reality, and common-sense. Certain cities in China and India might very well benefit from such additional regulations, but there is presently no city in the U.S. with this problem today.

DwN

## September 22, 2016 Los Angeles Times

<http://www.latimes.com/local/lanow/la-me-ln-smog-fees-20160921-snap-story.html>

### Southern California air quality regulators mulling hike in vehicle registration fees for smog reduction

The South Coast Air Quality Management District (SCAQMD) is considering an increase on vehicle registration fees as one component of a funding plan for smog reduction efforts over the next 15 years.

**Tony Barboza**

**Air quality regulators** are considering seeking an increase in vehicle registration fees for millions of Southern California drivers to help pay for smog reduction programs.

The idea, though still in preliminary stages, would be one component of a funding proposal under development by the South Coast Air Quality Management District as part of a major pollution-reduction plan, agency officials confirmed Wednesday. That plan will guide efforts to reduce emissions in the nation's smoggiest region over the next 15 years.

Increasing annual vehicle registration fees collected from more than 10 million drivers across Los Angeles, Orange, Riverside and San Bernardino counties by \$30 would generate an additional \$300 million a year for pollution-reduction programs, AQMD Acting Executive Officer Wayne Nastri said in an interview Wednesday.

The South Coast air district currently collects \$2 per vehicle in annual registration fees through the Department of Motor Vehicles. That's less than other parts of the state with similar air pollution problems, such as the San Joaquin Valley, where drivers pay an extra \$12 a year for local air-quality improvement projects.

A draft plan released in June by the South Coast district proposes cutting smog-forming emissions from cars, trucks, oil refineries, ports, logistics centers and an array of other sources largely through voluntary, "nonregulatory" measures that encourage, rather than force, polluters to adopt cleaner technology. The plan, which could go to a vote of the AQMD governing board as early as December, relies on finding \$1 billion a year for emissions-cutting incentive programs — a 10- to 20-fold increase over what is spent today.

In recent months, that plan has encountered skepticism from environmental groups and some members of the South Coast air district governing board, who criticize it as unrealistic. While its industry-friendly approach has garnered support from regulated businesses, environmentalists have urged a stronger focus on emissions-cutting rules and regulations.

The plan targets ozone, the lung-searing gas in smog that triggers asthma and other respiratory problems. Ozone reaches the nation's highest levels in Southern California's inland valleys and mountains. To meet a key federal deadline for reducing the pollutant, the region must slash emissions of smog-forming nitrogen oxides by 2031.

Nastri emphasized that a vehicle registration fee hike is only one of a broad range of potential federal, state and local funding sources the agency is evaluating for use in fighting smog. A more detailed outline is expected by October, he said.

“Right now, we’re looking at the number of vehicles in the region, we’re just postulating what the potential revenue would be if we were to say 30, 40, 20, 50 [dollars],” Nastri said. “We’ll figure out what’s reasonable, what’s not reasonable.”

At a public meeting earlier this month, however, air quality board chairman William Burke said that the \$30 vehicle registration fee suggested by Nastri would not be enough and that he has been discussing a \$60 fee.

“Nobody wants to pay \$60, but everybody says, you know, that would cure the problem,” Burke said at an air district committee meeting on Sept. 9. Burke could not be reached for comment Wednesday.

Imposing a vehicle registration fee hike would require action by state lawmakers. Because it would be considered a new tax, it would have to pass with a two-thirds majority in the legislature.

Adrian Martinez, staff attorney for the environmental law nonprofit Earthjustice, criticized the idea of raising vehicle registration fees as “verging on political fantasy.”

“Our air regulators should instead do what they do best, which is requiring large polluters to clean up our air,” he added.

Nastri acknowledged that “if we actually go to the legislature, we’re facing some big challenges,” including competing requests for funding for transportation, infrastructure and other critical projects. “But we believe that air quality and public health should rank right up there.”

Nastri added that the agency is pursuing a targeted approach for pollution-reduction fees that would seek to place more of the burden on high-polluting sectors, such as heavy-duty trucks, and less on low-income communities and those who drive electric vehicles.

“We don't want those least able from an economic perspective to pay a majority of the cleanup cost that we're facing in the basin,” Nastri said.

Nastri has previously proposed asking Congress to create a national fund for cleaning the regions with the most polluted air, an idea modeled on the federal Superfund program for hazardous-waste sites. He has also suggested tapping money from the state's cap-and-trade program or from Volkswagen's settlement with regulators over emissions test-cheating software on diesel vehicles.

There is some precedent for raising vehicle fees to fight smog.

San Joaquin Valley air quality regulators have raised more than \$133 million from drivers since 2012 by imposing a \$12 increase in annual vehicle registration fees, a spokeswoman said. The fees, assessed as part of a U.S. Environmental Protection Agency-required penalty, are used to pay for cleaner cars, trucks, buses and farm equipment.

When the South Coast air district was faced with a similar EPA penalty for missing an ozone-reduction deadline in 2010, it arranged to use money for local air quality improvement projects as credits rather than imposing tens of millions in fees on area businesses or drivers.

An analysis released by the South Coast district last month as part of the agency's clean air plan found that the health benefits of meeting federal pollution reduction deadlines, including prevention of thousands of early deaths, emergency room visits and missed school days, would far outweigh the billions in costs to industry, the government and consumers.