

By this point the Committee has heard dozens of formal testimony on the shortcomings that are embedded in the decision to restructure the charter CASAC and disband the PM expert panel. I stand in complete solidarity with those statements and the rationale provided by well-recognized experts in the field. I doubt that a credible contradiction of these statements can be offered by other scientific and/or policy reviewers with legitimate experience and credentials – and anyone void of a conflict of interest.

As such, my public statement will take a different course. It will reflect three storylines nested within my 40-year career in the science that I believe bear upon the current discourse:

The first storyline is grounded in my research career as an empirical cardiopulmonary physiologist where I sought to identify and understand the impacts of inhaled air pollutants – mainly ozone and particulate matter. My work was predominantly in animal models, more specifically models of pre-existing lung and heart disease. I was at the forefront of the “PM Story” when it broke in the early 90s with evidence that serious adverse health consequences, including death, were linked to ambient PM levels that previously were thought to be “safe”. Working to inform these findings, toxicologists revealed several plausible pathways to the observed outcomes, but it was the seminal empirical work in compromised animal models that demonstrated a cardiac-centric pathway that could substantiate the health observations in at-risk individuals exposed to PM in their daily lives. As the science evolved, the role of the nervous system and associated vascular pathways were borne out in animal and human studies to solidify this biology and to substantiate the epidemiology. This fundamental biology is free of the ever-festering arguments of those who attempt to dispute the science using distorted statistical manipulations. I can proudly stand by my science record and that of others who have provided this foundation of biological plausibility.

The second storyline extends from my tenure as the Research Program Director of EPA’s entire national air quality research program from 2008 to January 2018. This Program encompassed all ongoing Air research, both intramural and extramural – the latter through the Science to Achieve Results (STAR) program. The STAR program supported numerous RFAs focused on PM health, exposures and assessments including four cycles of academic centers programs that focused on PM and Air Quality. EPA resources supported this integrated body of research have contributing ~40% of the research publications noted in the PM ISA’s since 1997. This body of research has been scrutinized through the standard journal review process, two decades of CASAC and associated expert panels (such as the one dissolved), Science Advisory Boards, National Academy reviews, and countless other analyses. Throughout this period, EPA was sued repeatedly on the PM issue, yet NEVER was the science successfully challenged or in any way legitimately impugned. The reason is simple – the existing ISA review process that has evolved under inarguably expert CASAC panels and subcommittees WORKS as it should, motivated by mantra to assure sound policy as a fabric woven with the threads of credible, defensible science.

The third storyline is more personal. I grew up in the coastal town of Somerset, MA, a town that housed two power plants – including one at Brayton Point which was for decades the most polluting power plant in New England. In the late 1970s my father repainted his house and noted that within a month, the paint turned blue/green. Most people would assume some paint compositional problem, but my dad thought the patterns of discoloration might be the result of living a couple of miles downwind from the Brayton plant. My dad was a quiet, gentle man, a disabled World War II veteran with only an eighth grade education. Yet, he went and spoke with the plant's public relations people. Interestingly, they asked him to return in a few days when they handed him a check for about \$275....They clearly acknowledged responsibility!

Several years later my father had a heart attack which eventually progressed to congestive heart failure. During the night of August 22, 1998, a time when ozone and PM₁₀ were not particularly high at the central monitor 15 miles away, my father had a fatal arrhythmia. Can I absolutely attribute this event to the PM streaming his way from Brayton Point? Probably not. He had a pacemaker, but not an implanted defibrillator, which was just emerging on the medical scene and shown to be useful in linking arrhythmias to roadside PM in the Boston area. Do I believe that the emissions of the power plant were responsible? You're damn right I do!

So how do these storylines relate to this CASAC? The history of credible science and policy reviews via a well-established process have been instrumental in helping EPA progressively guide the cleaning of the air in the U.S. over the last 40 years. My professional and personal experiences leave no doubt in my mind that the decision to diminish the NAAQS review process and to press on with an agenda to weaken regulatory policy, if not deregulate all together, is without merit, and worse, is one without moral conscience.