

The State of the Environment: Evaluating Progress and Priorities

Response to Questions for the Hearing Record

*Questions from The Honorable Dana Rohrabacher
Response from The Honorable Kathleen Hartnett White*

*Response to Hearing Questions for the Record before
the U.S. House of Representatives Committee on
Science, Space, and Technology: Subcommittee on the
Environment*

Question 1. Regarding Politicized Science and Potential Measures to Restore Scientific Integrity.

The politicization of science is a critical issue of our time as also is the appropriate relation between science and public policy. The determinative importance given to science under environmental statutes also can undermine our democratic constitutional structure in which elected representatives in the U.S. Congress—and not federal employees—are to make the policy decisions of national consequence. EPA typically justifies its regulatory actions on what it construes as scientific edicts. Yet, scientific findings, inherently incomplete and uncertain, are incapable of weighing the complex policy considerations that inform and shape the law in a democracy.

I agree with your comment that EPA under the administrations of both parties may have manipulated science to support pre-determined policy objectives. As a former, final decision-maker for a large environmental regulatory agency, however, I conclude that EPA under the current administration has abused science far more acutely than any other administration I have observed for the last 30 years. And the stakes for our nation are now of a magnitude never encountered.

As an example of the abuse of “science,” I offer my analysis in [“EPA’s Pretense of Science: Regulating Phantom Risk.”](#)

To restore rigor and integrity to regulatory science, I am generally supportive of proposals to separate the scientific process and the regulatory process. But I question how effective this would be. A government institution devoted to the develop-

ment of the science behind EPA’s risk-based regulatory limits could well be subject to the same dynamics—and thus bias—as EPA. Science which concludes existing standards are adequate to protect public health might attenuate mission and budget. Governmental bureaucracies—big or little—have an inherent drive to grow and so inflate their importance. If environmental problems recede, so would EPA’s job.

Using existing federal entities such as the National Academy of Science, National Research Service, or perhaps even the Congressional Research Service, might provide the distance from EPA to foster more objectivity. The Center for Disease Control (CDC) and the U.S. Agency for Toxic Substances and Disease Registry may provide the best institutional fit for development of the risk assessments utilized in air quality regulation. EPA’s existing advisory groups and peer-review panels could be invigorated to minimize institutional bias. Selection of the members of these panels should be made by parties outside the EPA and should include participation by states.

In the long run, I think reform of regulatory science will require amendments to the relevant statutes. Forty years ago when the major federal environmental statutes were enacted, Congress granted broad discretionary authority to EPA as the technical expert. Over these four decades, environmental conditions have substantially improved, but the EPA continually devises stricter regulation under weaker science for smaller return while failing to identify the largely localized genuine environmental problems.

See my [“The Clean Air Act: The Case for Reform”](#) and [“The Clean Air Act: Reform Proposals.”](#) The need for statutory reform is an opinion increasingly shared across the political spectrum—outside the environmental activist organizations. A four-year project enlisting the input from 40 environmen-

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tal experts across the ideological spectrum concludes that the federal Clean Air Act has statutory arteriosclerosis.

To reform EPA's use of science, the Clean Air Act needs to stipulate minimal criteria for scientific risk assessment of health effects sufficiently robust to guide decisions on air quality standards. Such minimal criteria would include the following:

- EPA's risk assessments and cost-benefit analyses must be peer-reviewed by an independent body—not, as now, within EPA.
- Toxicological studies and clinical trials demonstrating causal connections between ambient levels of a pollutant and adverse health effects trump epidemiological studies indicating statistical correlations.
- Ecological epidemiological studies may be useful tools, but after substantial reduction of pollutants, epidemiological studies are not rigorous enough to set national ambient air quality standards.
- Instead of relying on a few cherry-picked studies, EPA should weigh the evidence from a range of studies conducted under diverse scientific methodologies and disciplines. Toxicological science which utilizes empirical data to demonstrate causal connections should be weighted heavier than correlational studies and unvalidated models.
- Abandon the use of no threshold linear regression modeling assumptions in setting ambient standard or regulatory emission limits.

- Health-based air quality standards must incorporate representative estimates of actual exposure and not the implausible assumption of exposure to the highest monitored outdoor level. The majority of the population spends over 90 percent of a day indoors where most pollutants are far lower than outside.
- Physical measurement through monitored readings trumps models.
- Health-effects findings must include a plausible biological mechanism.
- Require comprehensive, cumulative cost-benefit analysis of all rules according to methodology and scope stipulated in law.

Science is the appropriately stipulated driver under federal environmental laws. Unquestionably, science is a critical tool for, but not the equivalent of, reasoned policy decisions about inherently uncertain environmental risks to human health. Environmental regulatory standards reflect a judgment about what is acceptable or unacceptable societal risk. EPA misleads elected law makers and the public by promoting its scientific conclusions as if they were regulatory dictates. Legislation such as the REINS Act is needed to restore the constitutional authority of Congress to make policy decisions of national consequence. ★

