

**Oversight of Scientific Advisory Panels and Processes at the Environmental  
Protection Agency  
Subcommittee on Superfund, Waste Management, and Regulatory Oversight  
Committee on Environment and Public Works  
United States Senate**

**Testimony of  
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Thank you, Mr. Chairman, for the opportunity to testify today on the issue of the management of scientific advisory panels at the U.S. Environmental Protection Agency and their role in public health and environmental decision making. I appear in a personal capacity as my employer, the World Environment Center, is a non-profit organization that conducts no advocacy activities and takes no positions on public policy issues.

My comments today will reflect several experiences. From 1981-1988 I served as the Director of EPA's Science Advisory Board during the Administration of Ronald Reagan. Between 1988-1992, I was Vice President for Health and Environment at the American Petroleum Institute and from 1999-2005 I was a Vice President at the American Chemistry Council responsible for environment, health, safety and security. During all the years of my post-government employment, up to the present time, I have actively served on a number of scientific advisory panels advising the U.S. government, including Boards and Committees of the National Academy of Sciences.

Effective management of scientific advisory processes at EPA should embody several important principles that I believe are also consistent with the law and best practices as implemented in both Republican and Democratic administrations. These principles include:

- ***The advice provided by scientific advisory committees should only be advisory in nature.*** Both the Federal Advisory Committee Act and the Environmental Research, Development, and Demonstration Authorization Act of 1978 (that legislatively established the EPA Science Advisory Board) embody this principle. In practice, this means that advisory committee reports should be explicitly taken into account during

the policymaking process, but they are not binding. The reason for such a principle is simple and compelling: many other factors in addition to science must be taken into account in finalizing a public policy decision such as economics and implementation feasibility. Neither the professional training of scientists, nor their subsequent careers, prepares them to offer specific insight or expertise concerning these non-scientific factors.

- ***Appointments to scientific advisory panels should be made on the basis of merit rather than institutional affiliation, quotas or other factors.*** In 1982, President Ronald Reagan vetoed legislation that would have undermined this principle by requiring that appointments to EPA's Science Advisory be based on representation of specific interests rather than scientific merit. If I may quote President Reagan, "this requirement runs counter to the basic premise of modern scientific thought as an objective undertaking...the purpose of the Science Advisory Board is to apply the universally accepted principles of scientific peer review to the research conclusions that will form the basis for EPA regulations, a function that must remain above interest group politics." I believe that President Reagan's words echo across the subsequent decades and are directly relevant to the discussion we're having today.
- ***Scientists can never answer all of the scientific questions, but they can help policymakers focus on the important questions.*** I believe that EPA Administrators, members of Congress and stakeholders frequently have very unrealistic expectations about what scientists and scientific peer review can deliver. I once worked for a very distinguished EPA Administrator who was upset that EPA's Clean Air Scientific Advisory Committee did not recommend a specific numerical limit for him to establish the national ambient air quality standard for particulate matter. Both environmental and industry groups frequently petition for the re-opening of scientific reviews even when no significantly new information is available. This leads to worse case outcomes such as the twenty years it took EPA to conduct its dioxin risk assessment.
- ***Most potential conflict of interest issues can be resolved by appropriate transparency—but not all of them.*** I personally would take a dim view of any scientist who refuses to disclose the source of his/her research funding or who believes there is no conflict issue in reviewing one's own published work that may have an important bearing in a risk assessment. On the other hand, I believe that scientists from industry, environmental groups and other institutions have important expertise that needs to be represented on scientific advisory panels. So long as no single interest group has disproportionate representation on an advisory committee and has representatives that

qualify for appointment based on merit, I believe the Federal Advisory Committee Act's requirement for "balanced points of view" can be effectively met.

- ***Priorities for peer review panels should remain focused on research and scientific assessment.*** Throughout the long history of peer review, executive branch policymakers, Congress, and interest groups have sometimes sought to expand the scope of scientific peer reviews beyond the scope of relevant scientific information. These have included requests for to review proposed standards in addition to the science underlying proposed standards, or recommendations that advisory panels review public comments along with scientific research and assessments. In my professional experience, these attempts at expanding the scope and priorities of the review process distort the concept and practice of scientific review, and are outside the purview of the capabilities of scientists serving on such panels.
- ***Scientists are under no obligation to serve on scientific advisory panels. Adding further non-scientific responsibilities to peer review panels will make the recruitment of qualified, independent scientists even more difficult.*** This is a continuing challenge given the many commitments that talented scientists already have. Requiring scientists to review public comments, in addition to EPA assessment documents, or to burden scientists with additional information requirements, will only further hinder the ability to recruit scientists to scientific review panels.

With these principles in mind, I have several specific comments to offer regarding S. 543. They include:

- Section 2(B) states that "at least ten percent of the membership of the Board are from State, local or tribal governments." This is similar to a provision that was the basis for President Reagan's veto of similar legislation in 1982. The proposed legislation substitutes a quota for merit as the basis for a significant percentage of advisory committee appointments. In practice, this will distort the peer review process. Let me provide an example. In 1986, the Science Advisory Board reviewed a draft EPA risk assessment to evaluate the potential health and environmental effects of stratospheric ozone depletion. The chemicals of concern at that time were chlorofluorocarbons (CFC). Various substitutes have replaced CFCs in commerce, yet some of these substitutes are now implicated in public health and environmental risks. If EPA were to ask the Science Advisory Board to review the risk assessment for any of the current substitutes, it would be required, under the proposed legislation, to recruit representatives of State, local and tribal governments for the peer review panel. There are many issues where

expertise from such constituencies is valuable and necessary, but I do not believe that their expertise in CFC substitutes is a main competency. Thus, the proposed legislation would substitute a quota for merit without added an informed perspective on the critical scientific issues under review.

- Section 2(E) states that members “may not participate in advisory activities that directly or indirectly involve review or evaluation of their own work, unless fully disclosed to the public and the work has been externally peer-reviewed.” In other words, the proposed legislation would permit scientists to review their own work. I believe this provision will result in compromising the integrity of the scientific review process—and here’s why. Many risk assessment are highly dependent upon only a very few studies published by a small number of scientists. If one of the major study authors also serves on the advisory panel reviewing a risk assessment that relies upon his/her work, how is the integrity of the process then not compromised?
- Section 3(D) of S. 543 requires the filing of a “written report disclosing financial relationships and interests” including EPA grants, contracts, etc. I believe that more extensive financial disclosures about personal investments and portfolios will greatly discourage scientists from even considering participation in advisory panels. Scientists are like you and me—they don’t want government officials having access to their private investment portfolio data. Another important disclosure factor that is not considered by the legislation is the need to report whether the scientist on an EPA advisory panel is also under contract to advise any other institution on the same issues that come before the panel for review. In addition, it’s important not only to disclose EPA grants but also grants or contracts supported by other federal agencies, private industry or other institutions.
- In reviewing public participation, S. 543 proposes that “prior to conducting major advisory activities, the Board shall hold a public information-gathering session to discuss the state of the science related to the advisory activity.” As a point of reference, the Science Advisory Board conducted approximately 60-80 annual scientific reviews during the latter period of my tenure in the Reagan Administration. Had the S. 543 language been in effect during that time, I would have been required to organize 60-80 information-gathering sessions. The question I pose to this Subcommittee is: when would I have been able to actually organize the scientific reviews for which the Science Advisory Board is constituted? S. 543 adds a new, intrusive and expensive layer of bureaucracy to the scientific review process that would result in its breakdown and paralysis and directly undermine the peer review process.

- The proposed legislation also would require that public comments during Science Advisory Board reviews “shall not be limited by an insufficient or arbitrary time restrictions.” I’ve had a great deal of professional experience in integrating public comments into the scientific review process. Public comments can provide valuable information or perspective bearing on important scientific issues, and they deserve to be heard by advisory panels. Public comments can also provide input that is not related to the purpose of the scientific review, or they can be duplicative across the various business or environmental organizations that seek formal time on the agenda. One characteristic of many public requests for comments from both industry and environmental groups is that they seek to “flood the zone.” This means that multiple organizations with a common interest will make individual requests for comments on similar issues rather than coordinating their comments. By providing unlimited time for public comments, S. 543 creates the perverse incentive of driving scientific advisory panels away from their focus on the underlying science and towards a role of referee among competing interest groups. This provision of S. 543 should be removed.

In summary, as I reviewed the provisions of S. 543, I’m having a tremendous case of déjà vu that recalls my experience as Science Advisory Board Director during President Ronald Reagan’s Administration. Then, as now, Congress proposed legislation that substituted quotas for scientific merit in the appointment of advisory committee members. Then, as now, proposed legislation would add burdensome new requirements to the operation of scientific advisory panels that compete with and diminish their ability to focus on their core purpose—to provide independent evaluation of the quality of research and the scientific basis of proposed criteria, risks assessments and proposed policies and standards. Enactment of this proposed legislation will waste of taxpayer dollars and will further divert the focus away from the critical need of ensuring that scientific panels advising the EPA deliver qualified, timely and effective scientific advice.