



## SCIENTIFIC INSIGHT AND INTEGRITY IN PUBLIC POLICY

### ACS POSITION

Our government faces a wide range of critical and complex issues that involve significant technical challenges, as well as important economic, legal, and political components. The American Chemical Society (ACS) strongly supports the use of insightful and comprehensive scientific and engineering research and analyses to assist the development and evaluation of policy options to deal with these challenges. The Society encourages policies that assist the government to obtain and integrate scientific assessments including transparency, openness, empowerment of scientists inside and outside of government, and an appropriate scientific advisory system.

*To clarify and strengthen the role of scientific insight and integrity in the development of public policy, ACS recommends the following:*

#### **Improve Policymaker's Access to Scientific Information**

Congress should strengthen its access to timely science and technology information evaluations and policy option analyses. Congressional committees can and should seek direct testimony from technical experts on scientific and policy issues, and should instate a program similar to the Office of Technology Assessment. Detailed evaluations and analyses of technical data also need to be performed and presented publicly by scientific or engineering professionals with appropriate backgrounds and training.

Federal agencies should utilize scientific and technical advisory committees composed of qualified scientists and engineers from outside the sponsoring agency to enhance and stimulate the efforts of their technical staff members. Membership of federal scientific and technical advisory committees should be based on appropriate technical expertise, breadth of experience, availability and willingness to serve. Employer, professional or political affiliation, and prior policy positions should not preclude someone from being included on scientific/technical advisory committees.

#### **Proper, unbiased use of scientific information in policymaking and political discussion**

The value of science used to inform policy depends on both its completeness and its integrity. Completeness requires the inclusion of all current, pertinent scientific insight. Selective use of partial data or biased analyses to buttress preconceived policy is both unethical and ill advised. Ensuring the integrity of science used to support policy recommendations requires sustained effort and goodwill by both technical and non-technical policy participants. Scientific data and analyses should be assessed and summarized by qualified peers and should not be filtered through reviewers who are not objective or who have conflicts of interest.

#### **Freedom of Scientific Exchange**

Scientists and engineers serving the federal government as employees, grantees, or advisors can contribute more effectively with few, if any, constraints on their ability to present and publish their research and analysis results in forums subject to review by their peers. While some sensitive information may need to be classified or otherwise controlled, policy options based on technical information debated and vetted by the full scientific community are more likely to be sound and successful than those based on incomplete information or restricted review.

Federally employed and federally funded scientists and engineers should be allowed and encouraged to present their unclassified research at appropriate technical symposia; publish in peer-reviewed journals without interference; discuss their published, peer reviewed research in public forums, with representatives of the media, and in written work prepared for the general public; and comment publicly on policy options informed by their research results and general technical knowledge.

DRAFT

# Chemical & Engineering News

December 22, 2008 | Vol. 86, No. 51 | p. 42 ACS Comments Section

## Insight & Integrity In Public Policy

Charles E. Kolb Jr., Chair, Committee on Environmental Improvement

**OUR NATION** faces a wide range of critical and complex challenges with significant scientific and technological components. These include global and regional climate change, environmental degradation, unsustainable energy supplies, emerging and resurgent diseases, unsafe or ineffective drugs and medical procedures, and insufficient or tainted water supplies. Other science-related challenges are providing safe and nutritious food, upgrading aging infrastructure, sustaining industrial innovation and competitiveness in the face of global competition, and countering national security threats. Our future well-being requires effective national and international policies to address these challenges through appropriate application of science and technology.

How can we develop and evaluate the policy options for coping with these challenges? It will require scientific and engineering analyses based on sound research results. However, technical input is not enough. These challenges also involve important economic, legal, and political considerations. Therefore, policymakers must integrate technical input with a wide range of nontechnical considerations. Dealing with such complex issues can create tensions between stakeholders. The highly partisan political environment that has colored much of our national discussion over the past two decades has exacerbated such tensions. Unfortunately, over the past several years, there has been an increasing number of attempts—often advanced by those with strong political or cultural agendas—to mischaracterize or suppress scientific findings that support scientifically sound policy options.

Policy development involving environmental and biomedical challenges has been especially susceptible to this unfortunate trend. Cases of biased data selection or data suppression during policy evaluations, interference with government scientists publishing or presenting their research, and use of nontechnical criteria to select members of and set agendas for federal scientific advisory committees have occurred far too often. In addition,

congressional committee hearings have been used to attack peer-reviewed findings that were later substantively confirmed by National Research Council review.

ACS members and staff, in partnership with other scientists and scientific organizations, have been working with policymakers to improve their knowledge of scientific issues and their appreciation of the importance of unbiased scientific process. Individual scientists—especially ACS

members—who have reached out to legislators and research agency managers have been key to these efforts. That outreach has forged strong trusting relationships, provided objective advice, and effectively communicated the message of the scientific community. As the nation engages with the many science- and technology-laden challenges ahead, the scientific advisory and policy-relevant analysis work of ACS and its individual members will be more important than ever.

**TO ESTABLISH** and execute effective national policies on key issues, both the legislative and executive branches must ensure that peer-reviewed research findings and analyses with policy implications are welcome input when policy options are developed. Last month, ACS, as the world's largest scientific society, officially supported this important principle by adopting a policy statement entitled "Scientific Insight & Integrity in Public Policy"

([www.acs.org/sciencepolicystatement](http://www.acs.org/sciencepolicystatement)). The ACS Committee on Environmental Improvement developed this policy statement with input from the Committee on Science and the Presidential Committee on Ethics. It presents nine strong recommendations on the rights and obligations of government scientists and engineers, the selection of scientific advisory committee members, the use of scientific data and analyses in policy development, and the role of scientists and

scientific evaluations in congressional deliberations.

Approved just in time to help guide a new Administration and Congress, I believe that this ACS statement will help promote a healthier role for scientists and engineers who are involved in policy-relevant research and the development of policy options that address critical challenges. In a related development, ACS has joined a collaborative project, Strengthening Professionalism in the Public Interest. It aims to protect and enhance the identity and integrity of



professional workers in the public and private sectors. Integrity is a vital issue for many professions, and leaders from labor unions and professional organizations such as the AFL-CIO's Department for Professional Employees, Screen Actors Guild, American Association for the Advancement of Science, Institute of Electrical & Electronics Engineers, and 12 other groups gathered at ACS in June to discuss this challenge.

They agreed that essential elements of professional integrity include professional standards, pursuit of knowledge, and commitment to work for the common good. Participants also identified a number of challenges to integrity, including external pressures, misuse or suppression of science in policymaking, and lack of whistleblower protection and mechanisms to address professional misconduct.

They discussed strategies to enhance professional and ethical standards, to remove workplace barriers to integrity, and to enhance contributions to the public good. As this project continues, member organizations hope to address these concerns with a unified voice—a voice that can be used to educate our nation's policymakers. I believe that the new ACS policy statement and initiative will provide important support for ACS members as they work to contribute to effective solutions for the many challenges facing our nation and our planet.

*Views expressed on this page are those of the author and not necessarily those of ACS.*