Public Policy Statements: Advising policymakers and regulators

Kenneth P. Fivizzani

Division of Chemical Health and Safety

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American Technical Innovation Needs

- Adequate funding of science R&D
- Development of educated workforce in STEM
- Attractive and globally competitive business climate
- Robust protection of intellectual property
- Policies that facilitate and stimulate small businesses

ACS Influence on Public Policy

- Explain and support our society providing these needs for technical innovation.
- Suggest specific and detailed examples of proactive policies and regulations.
- Highlight actions, policies, or practices that create barriers to innovation and technology while maintaining environmental and public health standards.

Examples of things “to do”

- Provide and encourage financial support of R&D.
- Improve science and mathematics education at all levels (K-12 through graduate school).
- Promote institutions that assure appropriate use of science and technology.
- Understand how science research and teaching labs differ from manufacturing plants.
- Work with stakeholders.

Encourage R&D Financial Support

- "Foster U.S. tax and trade policies that improve the competitiveness of U.S. entrepreneurs and companies."
- "Promote incentives and reduce economic, regulatory, and intellectual property barriers to the development of new technologies and associated science and technology jobs."
- "Support for the training and education of chemical scientists to more uniformly prepare them to understand toxicity and exposures (i.e. risk) associated with chemicals."

Strengthen Scientific Education

- “Strengthen the quality of teaching through increased partnership and support of pre- and in-service training of educators from the kindergarten through the graduate school levels.”
- “Encourage the best and the brightest to pursue scientific careers, particularly more women, underrepresented minorities, and people with disabilities.”
- “Enable lifelong, strong, inquiry-based science education for everyone in both formal and informal settings to improve the scientific understanding of all our citizens.”

Promote institutions: NIST, NIOSH, NAS, CSB, NTP

- “Promote institutions and guidelines to assure that governments make appropriate and open use of scientific and technological information in making policy decisions.”
- “Promote a strong, non-governmental, scientific publishing enterprise that assures access to information and exchange of scientific ideas and information among all parties with legitimate uses while appropriately protecting copyright and security-related information.”

Examples of things to “not do”

- Require excessive paperwork or processes for procuring, using, storing, or disposal of chemicals.
- Make policies that create new problems or do not have the intended/desired effect.
- Make changes in zoning or building codes that apply retroactively to existing buildings unless providing financial support.

CCS-CHAS Policy Statement Writing Team

- Team began work in December 2015.
- Drafted ACS underlying policy statement on safety: Safety in the Chemistry Enterprise.
- Challenge: Who is the audience for the policy statement?
- Policy statement is under review by CHAS EC and CCS, then submitted to ACS Board of Directors.
- Future Work: prepare a guideline statement discussing the promotion and practice of laboratory safety.

CCS-CHAS things “to do”

- “Assure the use of both sound science and risk-based criteria in the promulgation of chemical safety regulations and public policy.”
- “Develop information regarding best practices, risks, use, and disposal throughout the development of public policy and regulatory processes.”
- [Implement] “Support for the training and education of chemical scientists and engineers to include toxicity issues and exposure risks associated with chemicals.”

CCS-CHAS things to “not do”

- “Subject matter experts need to be consulted to identify potential unintended consequences of regulation or public policy.”
- “Resolve inconsistencies between various state, federal, and local regulatory agencies that cause implementation conflicts.”

CCS-CHAS Policy Statement Writing Team

- Debbie Decker
- Harry Elston
- Ken Fivizzani
- Bettyann Howson
- Ellen Sweet
- Ralph Stuart
- Erik Talley
- Frankie Wood-Black
- Ray Garant (ACS Staff)

Conclusions and Recommendations

- Scientific societies should advise policymakers and regulators regarding potential actions that will support technical innovation and those actions that would hinder innovation.
- A CCS-CHAS Writing Team has prepared an ACS underlying policy statement on safety that will facilitate future comments on more specific safety topics.
- The Team plans to draft a guideline statement discussing the promotion and practice of lab safety in the chemistry profession.

Safety in the Chemistry Enterprise

- The study and implementation of chemistry can produce many valuable social and economic improvements, such as improved living conditions, public health, and overall quality of life. The chemistry enterprise creates high-skill and high-wage jobs. The practice of chemistry from concept through research, development, manufacture, use, and disposal must be done safely so as to minimize impacts to human health and the environment.
- The American Chemical Society believes recognition of the ethical obligations to the safety and health of both individuals and the environment is essential for those working with chemicals. Chemists understand working with chemicals and developing new materials and chemical processes involves some degree of risk.
- A thoughtful and educated approach must assess the overall lifecycle and risk/benefit analysis for each area of the chemical enterprise. What are the potential impacts of our activities? This process of minimizing the risk while increasing the benefit should continue throughout the investigation, development, implementation, use, and appropriate recycling or ultimate disposal of products and byproducts. Ethics and safety issues should be considered by all stakeholders when planning or evaluating the funding of science, education of chemists, technological development, and recognition of scientific achievement.

Safety in the Chemistry Enterprise - 2

- Chemical research and development must follow all applicable regulations and incorporate best safety practices regarding use, storage, and disposal of materials. Ongoing reviews of scientific literature, experimental procedures and developing processes will minimize risks. We must alert the end-users of our products and processes to the potential consequences of misuse or failure to follow product recommendations.
- The ACS supports policies and processes which:
- Assure the use of both sound science and risk-based criteria in the promulgation of chemical safety regulations and public policy.
  - Authors of regulations, guidance documents, and operating procedures should regularly review documents based on current, generally accepted, scientific and technical input to address risk to people or the environment.
  - Subject matter experts need to be consulted to identify potential unintended consequences of regulation or public policy.
- Develop information regarding best practices, risks, use, and disposal throughout the development of public policy and regulatory processes.
- Resolve inconsistencies between various state, federal, and local regulatory agencies that cause implementation conflicts.

Safety in the Chemistry Enterprise - 3

Chemical management and regulatory policy should encourage technological innovation and a globally competitive US chemical industry. Advancing research and applying appropriate green and sustainable principles will lead to economically viable technical innovations. To this end, ACS supports the government implementation of:

- An expedited, rigorous treatment to regulatory applications of inherently safer chemical products and processes. The government should work with industry, academia, scientific organizations, public interest groups, and other stakeholders to develop guidelines for use in such a regulatory process.
- Continued support for research and development by universities, industry, government laboratories, and other stakeholders to make safer alternatives available and encourage their adoption.
- Support for the training and education of chemical scientists and engineers to include toxicity issues and exposure risks associated with chemicals.