Nanotechnology Risk and Oversight: It’s Your Business!

The Woodrow Wilson International Center for Scholars of the Smithsonian Institution and the MIT Stanford UC Berkeley Nanotechnology Forum

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Topics Covered

- Federal Regulatory Oversight Initiatives
- Other Stakeholder Interests
  - Congress
  - Non-Governmental Organizations (NGO)
  - Industry
- The Future
National Nanotechnology Initiative (NNI) coordinates multi-agency effort in science, engineering, and technology (http://www.nano.gov/)

Federal agencies participate in NNI under the Nanoscale Science, Engineering and Technology (NSET) Subcommittee of the National Science and Technology Council

Eighteen federal agencies participate, including the U.S. Environmental Protection Agency (EPA), Food and Drug Administration (FDA), U.S. Department of Agriculture (USDA), National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services/National Institutes of Health (DHHS/NIH), and Consumer Product Safety Commission (CPSC)

Key agencies engaged in regulatory oversight initiatives include EPA, NIOSH, and FDA
Federal Regulatory Oversight: EPA

  - Released in December 2005
  - Expert peer review meeting in April 2006
- Office of Pollution Prevention and Toxics (OPPT) Nanoscale Materials Stewardship Program
- Additional stakeholder meetings planned in 2006
- OPPT New Chemicals Division decision logic
Federal Regulatory Oversight: NIOSH

- Robust research program
- Extensive education and outreach
FDA regulates a range of products -- foods, cosmetics, drugs, devices, and veterinary products -- some of which may contain nanoscale materials (http://www.fda.gov/nanotechnology/)

FDA formed a Nanotechnology Interest Group (NTIG)
- Membership includes representatives from all the Centers
- NTIG meets quarterly

Public stakeholder meeting planned for October 2006
Nanotechnology Congressional Hearings

- U.S. House of Representatives Committee on Science -- November 17, 2005
- U.S. Senate Committee on Commerce, Science and Transportation -- February 15, 2006
- U.S. Senate Committee on Environment and Public Works roundtable discussion with the business sector, the environmental community, and the federal government -- April 6, 2006
- U.S. Senate Commerce Committee Subcommittee on Trade, Tourism and Economic Development hearing -- May 4, 2006
- Other Congressional hearings are likely to be scheduled
NGO Initiatives

- Environmental Defense (ED) Initiatives
  - “Getting Nanotechnology Right The First Time”
    (http://www.environmentaldefense.org/issue.cfm?subnav=29)
  - ED and American Chemistry Council (ACC) Nanotechnology Panel Joint Statement of Principles -- June 2005
    (http://www.environmentaldefense.org/pdf.cfm?ContentID=4857&FileName=ACC-ED_nanotech.pdf)
NGO Initiatives (cont’d)

- NGO regulatory initiatives
  - ED Toxic Substances Control Act (TSCA) regulatory advocacy
  - Action Group on Erosion, Technology and Concentration (ETC) Advocacy
Industry Initiatives

- Focus on product stewardship, research, and advocacy
  - ACC Nanotechnology Panel -- Joint Statement of Principles with ED
  - International Council of Chemical Associations (ICCA) Nanomaterials Task Force
  - U.S. Council for International Business (USCIB)
  - Business Industry Advisory Committee to the Organization for Economic Cooperation and Development (OECD) (BIAC)
  - European Chemical Industry Council (CEFIC) Nanotechnology Center of Excellence
ACC Nanotechnology Panel Mission

- Coordinating and advocating information needed to assess and manage the health and environmental risks associated with nanoscale materials
- Advocating for research on nanomaterials/products that facilitates understanding of the Health, Environmental, and Safety (HES) aspects of nanomaterials
- Promoting the development of nanotechnology products in conjunction with Global Product Stewardship and Sustainable Development principles
Industry Initiatives (cont’d)

- Advocating the use of existing regulatory framework for the responsible development and management of nanoscale materials
- Supporting the development of appropriate, science-based regulations and harmonized international standards for nanotechnology
- Engaging and collaborating with other stakeholders to develop and maintain public awareness and acceptance of nanotechnology
- The Panel will conduct activities in a transparent manner and maintain open dialogue with stakeholders to achieve its mission
Industry Initiatives (cont’d)

- Other industry consortia -- U.S. Chamber of Commerce, CropLife America, ORC Worldwide, among others
The Future

- Who knows?

- A few general observations
  - Greater engagement by all stakeholders
  - Government agencies will continue to struggle with applying existing laws to address issues arising in connection with engineered nanoscale materials
The Future (cont’d)

- Industry groups will continue to develop innovative self-governance initiatives and mechanisms to achieve greater environmental accountability
- NGOs will continue to advocate the need for legislation, regulation, and transparency

- With luck, hard work, and diligence, stakeholders will work together to promote the responsible development of nanotechnology