Woodrow Wilson International Center for Scholars

September 28, 2006

Council for Science and Technology
Bay 307, 1 Victoria Street
London SW1H 0ET
United Kingdom

SUBMITTER: David Rejeski, Director

ORGANIZATION: Project on Emerging Nanotechnologies, Woodrow Wilson International Center for Scholars

SUBJECT: Call for Evidence—'Nanoscience and nanotechnologies: opportunities and uncertainties' Two-year review of progress on Government actions

---

The Project on Emerging Nanotechnologies is an initiative launched by the Woodrow Wilson International Center for Scholars and The Pew Charitable Trusts in 2005. It is dedicated to helping business, government and the public anticipate and manage the possible health and environmental implications of nanotechnology. As part of the Wilson Center, the Project on Emerging Nanotechnologies is a non-partisan, non-advocacy organization that collaborates with researchers, government, industry, non-governmental organizations (NGOs), and others concerned with the safe applications and utilization of nanotechnology.

Our goal is to take a long-term look at nanotechnologies; to identify gaps in the nanotechnology information, data, and oversight processes; and to develop practical strategies and approaches for closing those gaps and ensuring that the benefits of nanotechnologies will be realized. We aim to provide independent, objective information and analysis that can help inform critical decisions affecting the development, use and commercialization of responsible nanotechnologies around the globe.

Both the Wilson Center and The Pew Charitable Trusts believe there is a tremendous opportunity with nanotechnology to "get it right." Societies have missed this chance with other new technologies and, by doing so, forfeited significant social, economic and environmental benefits.

We appreciate this opportunity to comment on the United Kingdom (UK) Government's response to the Royal Society and Royal Academy of Engineering report 'Nanoscience and nanotechnologies: opportunities and uncertainties.' We are encouraged by the recent introduction of the Department of Environment, Food and Rural Affairs (Defra) voluntary reporting scheme for free, engineered nanomaterials. We hope that this reporting program will be a valuable first step in addressing the environmental, health and safety implications of nanotechnology at both the domestic and international level.

Since the UK Government's response was released in February 2005, a number of significant developments have occurred in the field. In particular, new information and analyses have emerged associated with nanotechnology public perception, nanotechnology commercialization, nanotechnology oversight, nanotechnology risk research and nanotechnology in agriculture and food production. As the UK Government moves forward to implement the strategy outlined in its response, it is critical that these updated findings are systematically considered and integrated into its future activities.

To help illuminate the nature of these new developments, we have attached extensive and detailed background materials that have resulted from our research in these particular areas. We are also presenting two on-line, publicly available inventories we have developed over the past year: first, the Nanotechnology, Environment, Health and Safety Research Inventory (http://www.nanotechproject.org/18/esh-inventory) and, second, the Nanotechnology Consumer Products Inventory (http://nanotechproject.org/consumerproducts). We hope that, taken together, these resources will provide useful insight into critical issues in need of continued attention by the UK Government. These background materials address:

- Nanotechnology commercialization in consumer products—Andrew Maynard and Evan Michelson, *The Nanotechnology Consumer Products Inventory*, March 2006;

- Nanotechnology oversight and governance—J. Clarence Davies, *Managing the Effects of Nanotechnology*, January 2006;

- Nanotechnology public engagement and trust in government—Jane Macoubrie, *Informed Public Perceptions of Nanotechnology and Trust in Government*, September 2005 and Peter D. Hart Research Associates, Inc., *Attitudes Toward Nanotechnology And Federal Regulatory Agencies: Report Findings*, September 2006;

- Nanotechnology risk research strategy—Andrew Maynard, *Nanotechnology: A Research Strategy for Addressing Risk*, July 2006;

- Nanotechnology in agriculture and food—Jennifer Kuzma and Peter VerHage, *Nanotechnology in Agriculture and Food Production: Anticipated Applications*, September 2006.

In closing, the Project on Emerging Nanotechnologies looks forward to the results from the ongoing work of the UK Government in response to the Royal Academy and Royal Academy of Engineering report. We anticipate that the UK Government will continue to work in an open, fruitful and productive manner and that it will remain committed to regularly disseminate the findings from its activities and consultations. In the long run, key social and economic benefits will occur only if society succeeds in overseeing nanotechnology innovation effectively and efficiently, and we expect that the UK Government will continue to play a significant role in this process.