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NEWS RELEASE

EPA Releases Nanotechnology White Paper

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(Washington, D.C. -- Feb. 15, 2007) The U.S. Environmental Protection Agency's Science Policy Council today issued a Nanotechnology White Paper that explores both the promise and potential impact that nanomaterials offer human health and the environment. The peer-reviewed paper, a culmination of efforts by an intra-agency group, provides an overview of nanotechnology research related to human health and the environment, and includes prioritized research needs within most risk assessment topic areas. The document concludes with staff recommendations for addressing science issues and research needs. The paper also provides an appendix, which outlines those areas that EPA should focus on as near-term priorities in regards to nanomaterials.

Nanotechnology is the science of creating or modifying materials at the atomic and molecular level, at dimensions of roughly one to 100 nanometers, to develop new or enhanced materials and products. One nanometer (nm) is about one hundred thousand times smaller than the diameter of a human hair and about half the size of the diameter of DNA. At this scale, the physical, chemical, and biological properties of materials may differ in important ways from the properties of individual atoms and molecules or bulk matter. While offering potential opportunities to improve the measurement, monitoring, and management of contaminants, nanomaterials may also present new and unforeseen environmental challenges.

To complement its own nanotechnology research niche, EPA is working with other federal agencies through the National Nanotechnology Initiative to develop research portfolios that address environmental and human health needs. The White Paper outlines EPA's key scientific information needs. The paper has also helped EPA strategically focus its own nanotechnology research program to provide key information on both environmental applications and potential environmental impacts from human or ecological exposure to nanomaterials in a manner that complements other federal, academic, and private-sector research activities.

Also, last October, EPA sent letters to more than 500 organizations and individuals inviting participation in the design and development of a nanotechnology stewardship program.

MORE

Through open dialogue, public engagement and sound science, EPA can establish the appropriate oversight for nanoscale materials.

The Nanotechnology White Paper can be viewed at www.epa.gov/osa/nanotech.htm.

For more information on the stewardship program, please visit: www.epa.gov/oppt/nano/.

EPA relies on quality science as the basis for sound policy and decision-making. EPA's laboratories and research centers, and EPA's research grantees, are building the scientific foundation needed to support the Agency's mission to safeguard human health and the environment.

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