

September 16, 2007

National Nanotechnology Coordination Office
Suite 405
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Re: Prioritization of Environmental, Health, and Safety Research Needs for Engineered
Nanoscale Materials: An interim document for Public Comment

Products which are using nanotechnology or incorporating nanomaterials are coming on to the market rapidly. We may expose ourselves to nanomaterials when we put on makeup, build a house, play tennis at the weekend, or ingest them as food additives¹. Keeping in step with increase of number of products, call for need of nanomaterials' characterization, risk assessment and risk management among researchers, manufacturers, and, above all, citizens are becoming louder and louder. And equally important as researches on EHS issues is to find a better way of distributing information which obtained through researches. Citizens rely on mass media, such as TV and newspaper, as information sources², however, coverage of emerging technology by mass media is tend to be sensational and, in some case, they even twist the fact to pursue their short-range goal, selling their story. The way of communicating with public should be considered carefully. Providing information both risks and benefits of nanotechnology is critical for ensuring society truly enjoy the benefits from nanotechnologies under proper management of risks.

International collaboration and information sharing among nations who conduct relevant research will help to address EHS issues of nanotechnology as quickly as we are expected by reducing redundancy in research. Avoiding redundant research also helps to increase the speed of complicated research which cost time and money. Elaborated research coordination among research plans at home and abroad will be required for that purpose.

As the first step of information sharing, we provide the following information which is about current situation of EHS research in Japan. A highly expected national research project on risk assessment is in progress at Research Center for Chemical Risk Management (CRM) of AIST. The Research Project "Research and Development of Nanoparticle Characterization Methods" is commissioned by New Energy and Industrial Technology Development Organization(NEDO) will develop a risk assessment framework for nanomaterials. A number

of research institutes and universities cooperate and carry out researches on metrology, toxicology, and exposure assessment on selected nanomaterials comprehensively.³

However, the research takes years and the result will be only available after 2010, many manufacturers who already handling nanomaterials in their facilities and laboratories concern that they do not have luxury of waiting the result. A research project which was commissioned by Ministry of Economy, Trade and Industry (METI) to JFE Techno Research Cooperation was carried out to answer their concern. In the research, present situation of management of nanomaterials in workplace were studied both in Japan and abroad and a draft guideline "Proper On-Site Handling Methods for Nanotechnologies in Research and Manufacturing" was recommended.

Understanding the risks associated with nanotechnology research and development must be placed due emphasis, if not the same as research and development of core technology. It is essential for future society benefit from nanotechnologies.

Reference:

- 1 Nanotechnology consumer products inventory run by CRM of AIST
A Nanotechnology-claimed Consumer Products Inventory in Japan
<http://staff.aist.go.jp/kishimoto-atuo/nano/index.htm>
(Last accessed Sep. 14, 2007)
- 2 "Toward Improvement of Risk Communication on Food Safety", November 2006, Food Safety Commission
<http://www.fsc.go.jp/english/index.html>
- 3 Outline of "Research and Development of Nanoparticle Characterization Methods"
<http://www.nedo.go.jp/english/activities/portal/gaiyou/p06041/p06041.html>

Sincerely yours,

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