Center for Integrated Nanotechnologies
Jointly Operated By:
Los Alamos National Laboratory
Sandia National Laboratories

SUBJECT: DOE Center for Integrated Nanotechnologies implementation of the Secretarial Policy Statement on Nanoscale Safety (DOE456.1, issued 9-15-05).

POLICY & IMPLEMENTATION STATEMENTS:

<u>Policy</u>: DOE will adopt and implement, as appropriate, both existing and future environment, safety and health best practices, "National Consensus Standards," and guidance relating to nanotechnology developed by recognized standard-setting organizations. Further, any existing DOE Directives and Standards that contain provisions that are relevant to nanotechnology work must be appropriately applied.

Consensus standards that demonstrate the 'best practices' towards environment, safety and health will be adopted and implemented by the Nanoscale Science Research Centers (NSRCs).

The NSRCs will seek regulatory requirements and/or guidance from the following United State Federal government departments and organizations with regard to nanotechnology and the health and safety of workers, the public, and the environment:

- Occupational Safety & Health Administration (OSHA) - OSHA will likely develop guidance policies on how to apply their existing regulations to the nanotechnology industry.
- American National Standards Institute (ANSI)
- Environmental Protection Agency (EPA) currently has regulations in place that could address potential health or environmental hazards by nanomaterials.
- DOE O 440.1A Worker Protection Management for DOE Federal and Contractor Employees.
- National Institute for Occupational Safety and Health (NIOSH) is currently developing guidance for nanotechnology use.

<u>Policy</u>: DOE and its contractors will identify and manage potential health and safety hazards and potential environmental impacts at sites through the use of existing Integrated Safety Management Systems, including Environmental Management Systems.

- The CINT Core Facility and the CINT Gateway to Sandia Facility will implement the existing Integrated Safety Management System (ISMS) process at Sandia National Laboratories to identify and analyze hazards to ensure that Members of the Workforce are not exposed to an unacceptable level of risk when performing their duties. The CINT Gateway to Los Alamos Facility will use the Integrated Work Management (IWM) process at Los Alamos National Laboratory (LANL) to identify and analyze hazards to ensure that Members of the Workforce are not exposed to an unacceptable level of risk when performing their duties.

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- These processes will include identifying any potential hazards from nanomaterials and a commitment by the CINT management to perform work safely and ensure the protection of CINT personnel, the public, and the environment.
- At SNL facilities, the Primary Hazard Screening (PHS) Module of the ISMS Software is a tool that will be used by CINT facility personnel to identify hazards and work controls. At LANL, the Job Hazard Analysis (JHA) or equivalent will be used by CINT personnel to identify hazards and work controls.
- The Environmental Management System (EMS) is implemented through ISMS at SNL and IWM at LANL, and is used to identify and manage environmental risk and strive for improvement.

Policy: DOE organizations working with nanomaterials will stay abreast of current research and guidance relating to the potential hazards and impacts of nanomaterials, and will ensure that this best current knowledge is reflected in the identification and control of these potential hazards and impacts at their facilities.

The following sources (not inclusive) will keep NSRCs informed of current literature on nanomaterials:

- The American Society of Safety Engineers (ASSE) - professional safety organization.
- The American Industrial Hygiene Association (AIHA) – professional industrial hygiene organization.
- Nanotechnology Journal
- Environmental Protection Agency (EPA)
- Institute of Electrical and Electronics Engineers (IEEE)
- National Institute for Occupational Safety and Health (NIOSH)
- Internal symposiums and seminars on nanotechnology topics – information distributed to other NSRCs
- NSRCs share nanotechnology information given at each site – what works, what doesn't work from a safety and health perspective.

Policy: DOE will continue to both support research on the environmental and safety and health impacts of nanomaterials, and participate in government-wide activities aimed at identifying and resolving potential environmental, safety, and health issues.

- CINT supports the commitment of the DOE Office of Basic Energy Sciences (BES) to conducting research in a manner that ensures protection of the workers, the public, and the environment.

- The CINT management takes responsibility and is accountable for ES&H performance at the CINT Core and Gateway Facilities, protecting the workers, the public, and the environment.

CINT safety and health professionals will continue to participate in the NSRC ES&H working group

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