



## WISCONSIN LEGISLATIVE COUNCIL STAFF MEMORANDUM

Memo No. 2

TO: MEMBERS OF THE SPECIAL COMMITTEE ON NANOTECHNOLOGY

FROM: Mary Matthias, Senior Staff Attorney, and Larry Konopacki, Staff Attorney

RE: Recommendations for Legislation

DATE: October 19, 2010

This Memo provides a list of recommendations for legislation that have been made to the Special Committee by invited speakers at its first two meetings, as well as ideas generated during committee discussion. The Memo is intended to organize the committee's discussion and help the committee identify the recommendations for which it would like either further information, a more detailed analysis, or draft legislation.

This list of options is not exhaustive; committee members and others are likely to have further suggestions for the Special Committee to consider. Also, some options are more developed than others based on available information. Committee staff attempted to note some of the key policy choices that would likely have to be addressed if particular options are chosen.

### *I. Nanotechnology Clearinghouse*

- A. Establish a "Nanotechnology Clearinghouse" to perform some or all of the following functions:
1. Connect researchers with nanotechnology companies.
  2. Facilitate sharing of equipment and specialized skills between the public and private sectors.
  3. Provide information on best practices for handling nanomaterials to protect worker safety.
  4. Monitor, compile, and disseminate emerging scientific research on nanomaterial risks.

5. Monitor and provide information on new or developing federal regulations and regulations in other jurisdictions.
  6. Help businesses comply with regulations and implement best practices.
  7. Help state agencies craft effective regulations.
  8. Make recommendations or provide reports to the State Legislature based on emerging nanotechnology health and safety information.
  9. Provide information on business development assistance programs.
  10. Provide information on post-secondary education programs that prepare workers to work with nanotechnology.
  11. Develop and implement a state educational program about the benefits and risks of specific types of nanomaterials and products.
  12. Serve as a resource for emergency response personnel.
- B. The clearinghouse could potentially be located within the University of Wisconsin (UW) System or the WiSys Technology Foundation, attached to a state agency or other entity, or created as a stand-alone entity.
- C. The clearinghouse could incorporate information-sharing models such as the existing inter-agency working group and projects at various university campuses.

## ***II. Other State Policies to Promote Nanotechnology in Wisconsin***

- A. Establish a “Voluntary Worker Safety Recognition Program” under which recognition would be granted to an employer if National Institute for Occupational Safety and Health (NIOSH) standards are met, similar to or in conjunction with the Onsite Safety and Health Consultation in Wisconsin (SHARP) program. Regulatory concessions and marketing tools could be included.
- B. Increase access to capital for Wisconsin entrepreneurs by doing some or all of the following:
1. Champion creation of a “fund-of-funds” by:
    - a. Creating a state-focused “fund-of-funds” within the state pension fund.
    - b. Championing a public-private sector partnership by which the state uses its existing investor tax credits to encourage investments in high-growth businesses, and then selects a provider (manager) to come in and raise the fund.
    - c. Creating a public-private partnership with a fund-of-funds manager, with investments backed by taxpayer guarantees.

2. Encourage state-led direct investments in high-growth businesses by using the state's bonding authority or other state revenue source to create a fund that makes investments in other funds.
3. Encourage or require pension funds to become more active investors by making higher-risk investments in high-growth, in-state businesses.

### ***III. Research on Risks***

Require and provide funding for an entity such as the Department of Health Services (DHS), the State Lab of Hygiene, or the UW to study the risks of nanotechnology, possibly focusing on nanomaterials with the most expected potential for harm to human health or the environment.

### ***IV. Worker Safety***

- A. Require safety protocols to be developed and used at all public laboratories, including university laboratories, that use or create nanoparticles. Include protocols for workers, such as maintenance staff, who are not directly involved in the research but may be exposed. Possibly require specific standards, such as those compiled by the Occupational Safety and Health Administration (OSHA).
- B. Establish a program to conduct medical surveillance of workers who handle certain nanomaterials. Use results to create a "potential for exposure registry."
- C. Request a change to federal law on material data safety sheets that would require them to be provided to workers for nanomaterials even if the nanomaterial comprises less than 1% of a product.

### ***V. Nanomaterial Registry***

#### **A. Administration.**

A nanomaterials registry could be housed in a state agency such as the DHS, the Department of Agriculture, Trade, and Consumer Protection (DATCP), or the Department of Natural Resources (DNR). If a registry is only applied to public research facilities, housing the registry within the UW System might be prudent.

#### **B. Definitions.**

The committee, or alternatively the administering entity, would have to create a clear definition of the types of materials to be subject to the registry.

#### **C. Thresholds.**

1. The registry requirements could apply only to amounts of nanomaterials over a certain weight or volume threshold.

2. The requirements could apply only to nanomaterials that could be expected to reach some prescribed level of human or environmental exposure risk.

D. Applicability.

1. The requirements could apply only to nanomaterials being commercialized.
2. The requirements could apply only to nanomaterials of particular human health or environmental concern or nanomaterials that pose an identified risk for emergency response personnel, production workers, or consumers.
3. The registry requirements could apply only to the public sector, the private sector, or both.
4. Submission of information for the registry could be voluntary or mandatory.
5. Submission of information for the registry could be linked to eligibility for tax credits, or other incentives.

E. Information Management.

1. Information on nanomaterials collected by the registry could be required to be disclosed to specific people or agencies, such as production workers with exposure risk, emergency response personnel, or the DNR.
2. Exceptions could be created in open records laws to protect sensitive proprietary information.

**VI. *Emergency Response***

- A. Amend s. 323.60, Stats., to reduce the threshold amounts of certain nanomaterials that must be present to trigger the reporting requirement.
- B. Require education and training on safe handling of nanomaterials for emergency responders.

**VII. *Labeling/Notification***

- A. Require labeling of consumer products that contain nanoparticles that are sold in Wisconsin. Considerations on the implementation of this requirement could include:
  1. Whether to apply the requirement to all products containing nanoparticles or to a specific subset based on risk, prevalence, or other factor.
  2. Whether to exempt nanomaterials effectively incorporated into products in ways that make exposure to them as nanoparticles impossible or unlikely.
- B. Require any entity that supplies products containing nanomaterials to another entity for further processing to notify that entity.

**VIII. Education**

- A. Create a public awareness campaign to share information about nanotechnology, including both the benefits and the risks.
- B. Have the state maintain a website for consumers with an inventory of products sold in the state that contain nanomaterials.
- C. Have the state maintain a website for consumers with information about the known risks associated with particular types of nanomaterials.

**IX. Other Regulation; Federal Laws**

- A. Prohibit the sale of products containing nanosilver that are designed as eating or drinking implements for infants and young children.
- B. Authorize and require DATCP and DHS to evaluate nanomaterials found in products and promulgate administrative rules to protect public health and environmental health such as prohibitions on sale, labeling requirements, disposal requirements, or other methods. Heightened authority could be provided for controls on products that will be used by higher-risk groups, such as children.
- C. Require the DNR and DHS to create a program for nanotechnology companies modeled after the DNR's Green Tier program, which would incentivize information sharing between the company and the public, provide regulatory flexibility for companies, and allow greater company involvement in the creation of any regulations related to nanotechnology.
- D. Request a change to the federal Toxic Substances Control Act to fully authorize the Environmental Protection Agency (EPA) to regulate chemicals based on characteristics that are present in specific sizes or shapes.
- E. Request a change to the federal Emergency Planning and Community Right-to-Know Act (EPCRA) to reduce reporting thresholds for nanomaterials.
- F. Request a change to federal law to require NIOSH-recommended safety protocols for nanomaterials handling to be implemented in workplaces.
- G. Request that a greater percentage of federal funding related to nanotechnology be devoted to research on risks of nanotechnology to human health and the environment.

MM:jal