



**WISCONSIN LEGISLATIVE COUNCIL
STAFF MEMORANDUM**

Memo No. 1

TO: MEMBERS OF THE SPECIAL COMMITTEE ON NANOTECHNOLOGY

FROM: Mary Matthias, Senior Staff Attorney

RE: Regulation of Nanotechnology in California and Cambridge, Massachusetts

DATE: September 9, 2010

This Memo provides additional information about state and local governmental responses to potential risks of nanotechnology that are discussed in the May 2010, Government Accounting Office (GAO) Nanotechnology Report provided to the Special Committee. This Memo is intended to provide only a brief description of this material; additional information or a more detailed analysis can be provided to the Special Committee upon request.

California Department of Toxic Substances Control Carbon Nanotube “Call-In”

In January 2009, the California Department of Toxic Substances Control (DTSC) announced that companies that produce carbon nanotubes in California or import them into California would be required to report certain information relevant to these activities to the department within one year. The DTSC refers to the requirement to provide this type of information as a “chemical information call-in.”

The letter sent by the DTSC to manufacturers and importers of carbon nanotubes notifying them of the “call-in” is included as Enclosure 1 to this Memo. In that letter, the DTSC directed manufacturers and importers to answer the following questions:

- What is the value chain for your company? For example, in what products are your carbon nanotubes used by others? In what quantities? Who are your major customers?
- What sampling, detection and measurement methods are you using to monitor (detect and measure) the presence of your chemical in the workplace and the environment? Provide a full description of all required sampling, detection, measurement and verification methodologies.

- What is your knowledge about the current and projected presence of your chemical in the environment that results from manufacturing, distribution, use, and end-of-life disposal?
- What is your knowledge about the safety of your chemical in terms of occupational safety, public health and the environment?
- What methods are you using to protect workers in the research, development and manufacturing environment?
- When released, does your material constitute a hazardous waste under California Health & Safety Code provisions? Are discarded off-spec materials a hazardous waste? Once discarded are the carbon nanotubes you produce a hazardous waste? What are your waste handling practices for carbon nanotubes?

The letter informs recipients that the DTSC will exercise the “trade secret” provisions of the relevant California law at the request of the recipient.

The DTSC cited secs. 57000-57020 of the California Health and Safety Code, included as Enclosure 2 to this Memo, as its source of authority for the carbon nanotube call-in. These provisions do not specifically refer to carbon nanotubes or nanomaterials. Rather, they authorize any state agency to request a manufacturer or importer of any “chemical” to provide information about the chemical to assist the state agency in evaluation of the fate and transport of the chemical in “relevant matrices.” The statute defines “chemical” to mean, with specific exceptions, any organic or inorganic substance of a particular molecular identity, including any combination of such substances occurring in whole or in part as a result of a chemical reaction or occurring in nature and any element or uncombined radical. The “relevant matrices” include water, air, soil, sediment, fish, and blood, among others.

Berkeley, California City Ordinance

The Berkeley, California Municipal Code requires facilities that handle hazardous material or waste to provide certain information to the city.

The Code states that all facilities that manufacture or use manufactured nanoparticles must submit a separate written disclosure of the current toxicology of the materials reported, to the extent known, and how the facility will safely handle, monitor, contain, dispose, track inventory, prevent releases, and mitigate such materials.

The Berkeley Municipal Code defines “manufactured nanoparticle” as a particle with one axis less than 100 nanometers in length.

The relevant provisions of the Berkeley Municipal Code are included as Enclosure 3 to this Memo.

Cambridge, Massachusetts: Recommendations for a Municipal Health and Safety Policy for Nanomaterials

In January 2007, the City Council of Cambridge, Massachusetts ordered the city manager to examine the Berkeley, California ordinance, described above, and recommend an appropriate ordinance for Cambridge.

In response, the city manager convened the Cambridge Nanomaterials Advisory Committee and directed it to develop recommendations for oversight of local nanotechnology activities to protect human health. The advisory committee submitted a report to the city manager in July 2008, titled *Recommendations for a Municipal Health and Safety Policy for Nanomaterials*. A copy of the report is included as Enclosure 4 to this Memo.

In the report, the committee recommended that the city not enact an ordinance to regulate nanomaterials, due to the scarcity of data on the health effects of nanomaterials and the absence of a clear consensus on best practices and standards for engineered nanomaterials. However, the committee did advise the city to take the following steps:

- Establish an inventory of facilities that manufacture, handle, process, or store engineered nanoscale materials in the city, in cooperation with the Cambridge Fire Department and the Local Emergency Planning Committee.
- Offer technical assistance, in collaboration with academic and nanotechnology sector partners, to help firms and institutions evaluate their existing health and safety plans for limiting risk to workers involved in nanomaterials research and manufacturing.
- Offer up-to-date health information to residents on products containing nanomaterials and sponsor public outreach events.
- Track rapidly changing developments in research concerning possible health risks from various engineered nanoscale materials.
- Track the evolving status of regulations and best practices concerning engineered nanoscale materials among state and federal agencies, and international health and industry groups.
- Report back to City Council every other year on the changing regulatory and safety landscape [as] it relates to the manufacture, use, and investigation of nanomaterials.

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Enclosures