States Leadership Role in Chemicals Policy Reform Efforts

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The Lowell Center for Sustainable Production

• Established at the University of Massachusetts Lowell in 1995
• Develops practical solutions to environmental and health problems, helping to advance changes that lead to a safer, more secure, and sustainable planet
• Team of six faculty and 25 professional staff with expertise in:
  – toxics use reduction (TURI)
  – industrial hygiene
  – environmental policy
  – environmental health
  – environmental management systems, and more...
  – chemicals policy and science
  – clean production
  – sustainable hospitals
  – epidemiology
Chemicals Policy and Science Initiative

- Seek to significantly advance the dialog around chemicals policy reform in the US
- Encourage the development and use of safer alternatives
- Identify tools and appropriate ways of assisting green chemistry and design for environment innovation and safer supply chain management of chemicals

Our research includes:
- Tools and approaches for advancing safer chemistry and products
- Policy reform
- Barriers and opportunities for a sustainable chemicals industry

In our strategic engagement to help shape policy reform we work with:
- Proactive businesses
- State and federal government agencies
- Advocates (environmental and labor)
Our work

The report outlines a range of options to help reshape and reorient chemicals management policy at the state level so that it more effectively protects health and environment while stimulating innovation, and safer chemistry and products.
The goal of the report is to create an open source framework for the relatively quick assessment of safer and more socially just alternatives to chemicals, materials, and products of concern.
Green chemistry

- Michigan Green Chemistry Action Plan
- California Green Chemistry Initiative
- Options for states to promote, research, develop and use green chemistry and design for environment to eliminate or reduce the use or generation of hazardous chemicals in manufacturing and promote the development of the green economy
### US State Level Chemicals Policy Database

The database can be searched by state, region, status (e.g., enacted, proposed, and failed), policy category (e.g., pollution prevention, single chemical restriction, etc.), chemical, and product type (e.g., children's products, cleaning products, etc.).

To search the database, use the six pull-down menus below to make selections in one or more of the pull-down menus. When making selections in multiple pull-down menus, the results will include only entries that contain all of the selections highlighted. The database can also be searched by making multiple selections from one pull-down menu. In order to select more than one item in each menu, hold down the command key (Mac) or control key (PC) while making the selections. When making multiple selections in one pull-down menu, the results will include entries that contain any of the selections highlighted.

Additionally, the entire database can be searched by entering a bill number, word, or phrase into the box located below the pull-down menus. This will search the full database entries of each policy for the entered word or phrase, although it will not return results where the entered word or phrase is found solely in the full-text document (word or pdf) of the policy.

To print the results of the search, click on the print icon located at the top of the returned results. To search again, click on "new search" located below each entry to reset the menus.

To let us know about legislation or policies that are not represented in the database, any mistakes in the entries, or if you have any other comments, please click here.

### Passed and Pending State Level Chemicals Legislation

To select more than one item in each list, hold down the command key (Mac) or control key (PC) while making your selections.

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The report examines states’ efforts in reforming the way chemicals in commerce are managed and analyzes chemicals policies that have been proposed or implemented at the state level.
States chemicals policy efforts in context

- In absence of federal leadership to reform 30 year old TSCA, states have historically been leaders in innovations in health and environmental policies – chemicals policy is no exception
  - Maine, Washington, Massachusetts, California, New York, Oregon, Connecticut, Minnesota and Michigan
  - New players, including Alabama, Louisiana, Mississippi, and Montana
- In the past 20 years a broad range of chemicals policy have been enacted and proposed
Policy categories

- Pollution prevention and toxics use reduction
- Single chemical restrictions
- Multiple chemical policies
- Regulation of product categories
- Biomonitoring and environmental health tracking and surveillance systems
- Data collection
- Right-to-know
- Chemical prioritization
- Alternatives assessment
- Green chemistry and design for environment
- Product stewardship
- Environmentally preferable purchasing
- Precautionary principle
FINDINGS: Shifting focus of state chemicals policies

• Toxics policy (single chemical restrictions) to chemicals policy (multiple chemicals and their intrinsic hazards)
  – Critical element is focus on rapid prioritization based on hazards and use or exposure and not risk assessments
  – Efforts in several states that create frameworks for the rapid identification, prioritization, and substitution of chemicals of concern. These comprehensive efforts have risen from zero bills in 2006 to 42 bills introduced in seventeen states from 2007-2009. To date, six states have enacted this type of legislation.
• Phase-out to phase-in approach to chemicals. Phase-out approach reacts to problems of the day; phase-in approach focuses on developing safer alternatives and substitution.
Maine takes first step in protecting children from toxic chemicals: Identifies dangerous chemicals
July 17, 2009

- An Act to Protect Children's Health and the Environment from Toxic Chemicals in Toys and Children's Products 2008
- DEP to publish a list of chemicals of high concern (CHC)
- List sets up process to, prioritize, access chemical information, and replace some of the harmful chemicals in children’s products
- State has authority to phase out use of dangerous chemicals in children’s products when safer alternatives are effective and available at a comparable cost
- Next year DEP to move at least two “priority chemicals” forward for further scrutiny and possible regulatory action.
- Maine is the first state to publish a List of Chemicals of High Concern.
- CHC list: www.maine.gov/dep/oc/safechem/
FINDINGS: Current trends

Past and present focus:
• Bans of single chemicals or uses – although there’s a trend towards more comprehensive chemical reforms, chemical bans are still prominent
  – E.g. bisphenol A, a chemical widely used in consumer and baby plastic products that is linked to fertility defects in laboratory studies, from one bill introduced in 2006 to 90 bills introduced within the last three years.
  – Single Chemical Restrictions – Mercury (32), polybrominated diphenyl ethers PBDEs (25), Lead (32), phthalates (22), bisphenol-a (20)
• Environmentally preferable purchasing – encouraging the use of safer products in 18 states. Increasingly relying on 3rd party certification

Present and future focus:
• Identifying safer alternatives to toxic chemicals – requiring substitution where feasible alternatives exist
• Green Chemistry - critical for the supply of safer chemicals and products
Beginning July 1, 2009, manufacturers, wholesalers, and retailers are prohibited from manufacturing, selling, offering for sale, distributing for sale, or distributing for use a children's product or product component that contains:

- Lead at more than .009 percent by weight (90 ppm);
- Cadmium at more than .004 percent by weight (40 ppm); or
- Phthalates at more than 0.1 percent by weight (100 ppm).
In the Year Two Thousand and Seven.

AN ACT FOR A HEALTHY MASSACHUSETTS SAFER ALTERNATIVES TO TOXIC CHEMICALS.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. Title. This Act shall be known and may be cited as “An Act for a Healthy Massachusetts: Safer Alternatives to Toxic Chemicals.”

2 SECTION 2. Legislative findings.
3 Whereas, Article 97 of the Constitution of Massachusetts provides that the people shall have the right to clean air and water; and
4 Whereas, scientific evidence increasingly links many chronic diseases with repeated and increased exposure to toxic substances. These diseases and disorders include: asthma, autism, birth defects, cancers, developmental disabilities, diabetes, and...
EXECUTIVE DIRECTIVE No. 2006-6

PROMOTION OF GREEN CHEMISTRY FOR SUSTAINABLE ECONOMIC DEVELOPMENT AND PROTECTION OF PUBLIC HEALTH

WHEREAS, Section 1 of Article V of the Michigan Constitution of 1963 vests the executive power of the State of Michigan in the Governor;

WHEREAS, under Section 8 of Article V of the Michigan Constitution of 1963 each principal department of state government is under the supervision of the Governor unless otherwise provided by the Constitution;

WHEREAS, Section 52 of Article IV of the Michigan Constitution of 1963 declares that the public health and general welfare of the People of the State of Michigan are matters of primary concern;

WHEREAS, the use by persons and entities in Michigan of hazardous substances that can threaten human health and our environment should be reduced;

WHEREAS, “green chemistry” is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances;

WHEREAS, “green chemistry” can be an effective approach to pollution prevention because it applies innovative scientific solutions to real-world environmental situations;

WHEREAS, the field of “green chemistry” holds promise as a way to both reduce the use of hazardous substances and to promote sustainable economic development in Michigan;

NOW, THEREFORE, I, JENNIFER M. GRANHOLM, Governor of the State of Michigan, by virtue of the power and authority vested in the Governor by the Michigan Constitution of 1963 and by Michigan law, direct the following:

DEFINITIONS

As used in this Directive:


2. “Green chemistry” means chemistry and chemical engineering to design chemical products and processes that reduce or eliminate the use or generation of hazardous substances and producing high quality products through safe and efficient manufacturing processes. Green chemistry is based upon the following 12 principles:

   a. Prevent waste: Design chemical syntheses to prevent waste, leaving no waste to treat or clean up.

   b. Design safer chemicals and products: Design chemical products to be fully effective, yet have little or no toxicity.
California Green Chemistry Initiative

• Expand Pollution Prevention
• Develop Education and Training, Research and Development and Technology Transfer
• Create an On-Line Product Ingredient Network
• Create an On-Line Toxics Clearinghouse
• Accelerate the Quest for Safer Products
• Move Towards a Cradle to Cradle Economy
CA Legislation - AB 1879 and SB 509, building off recommendations

• DTSC to adopt regulations by January 2011 which establish a process to identify and prioritize chemicals which are “chemicals of concern”
• January 2011 rulemaking to establish process for: Evaluating chemicals of concern in consumer products; Identifying potential alternative; Determine how to limit exposure or reduce hazards
• Web-based Clearinghouse for collection, maintenance and distribution of chemical hazard trait and environmental/toxicological end-point data
• http://www.dhs.ca.gov/ohb/Cosmetics
FINDINGS: Chemicals policy reform drivers

- Longer term
  - Lack of federal oversight of chemicals in products and absence of TSCA reform
  - Development of new science on health and ecosystem impacts of chemicals
  - Rise in economic costs of not taking action

- New drivers
  - An increase in public attention to chemicals in consumer products creating increased awareness
  - Growing concern in business about health effect of chemicals leading to the development of safer chemicals and products
  - Rise in standards in chemicals policy in EU, Canada and other state efforts
FINDINGS: Barriers to state chemicals policy reform efforts

- Lack of data on chemical toxicity, use in products and safety of alternatives
- Lack of agency resources and capacity
- Lack of intra-and inter-state coordination
- Difficulty in defining safer chemicals
- Pressure from regulated community
FINDINGS: Overcoming barriers - new collaborations

- Opportunities within and between states
- Public and private engagement increasing
- Chemicals policy efforts increasingly based on positive vision of safer alternatives
Conclusion

- States will continue to be leaders – serve as laboratories and drive federal change e.g. recent CPSIA changes driven by state level policies; talks of TSCA reform
- State chemicals policy focus is changing:
  - From chemical waste from manufacturing to chemicals in products and their impacts throughout lifecycle
  - From a reactive approach of restricting a few chemicals of concern without alternatives to stimulating safer alternatives
  - From toxics policy to comprehensive chemicals policy
- Infrastructure is needed for this change in focus – new skills, infrastructure and institutional structure e.g. NY Pollution Prevention Institute / TURI
  - Collecting information on chemicals in products
  - Conducting safer alternatives assessments
  - Assisting in the transition to these alternatives
- Some elements of chemicals policy reform may be relevant at different levels:
  - Federal level: toxicity testing and development of tools and approaches for alternatives assessment and green chemistry
  - State level: data on chemical uses or alternatives implementation better at state level