

March 15, 2010

To: Members: Assembly Committee on Environmental Safety & Toxic
Materials

From: Assemblyman Wesley Chesbro, Chair
Assembly Committee on Environmental Safety & Toxic Materials

Subject: Green Chemistry Regulations Oversight Hearing, March 17, 2010

On March 17, 2010, the Assembly Committee on Environmental Safety and Toxic Materials will hold the second oversight hearing on the State's implementation of Green Chemistry statutes, as provided in AB 1879 and SB 509 from the 2007 - 2008 legislative session.

Background

Green Chemistry.

Green Chemistry, as defined in *Green Chemistry: Theory and Practice*, is "the utilization of a set of principles that reduces or eliminates the use or generation of hazardous substances in the design, manufacture and application of chemical products."¹ For the last century, environmental protection has concentrated on capturing and storing hazardous waste. Green Chemistry is a fundamentally new approach to environmental protection, transitioning away from managing hazardous chemicals at the end of the lifecycle to reducing or eliminating their use altogether. Green Chemistry encourages cleaner and less-polluting industrial processes, while creating new economic opportunities in the design and use of chemicals, materials, products and processes.

Legislative Oversight of Green Chemistry Regulations.

The legislature recognized the principle of Green Chemistry in California by passing two landmark pieces of legislation, AB 1879 (Feuer, Chapter 559, Statutes of 2008) and SB 509 (Simitian, Chapter 560, Statutes of 2008). These bills establish a comprehensive,

¹ Paul Anastas and John Warner in Green Chemistry: Theory and Practice (Oxford University Press: New York, 1998).

life-cycle approach to chemicals policy and are often referred to as Green Chemistry laws or statutes or the Green Chemistry program.

The structure for regulatory action required by AB 1879 is broad and general. Rather than specify particular chemicals or explicit regulatory action on those chemicals, the statute relies on State agencies, primarily the Department of Toxic Substances Control (DTSC), to set up a robust process to identify and evaluate chemicals of concern and the products in which they are found, and to assign appropriate regulatory action for those chemicals and products. This unique statutory approach anticipates State agencies playing a greater role in developing strategies and policies designed to meet the general objectives of the statute. Faced with significant agency discretion, the legislature has an important oversight obligation to assure that both the letter of the law, as well as the spirit of the law, is complied with. This oversight hearing is part of the California State Assembly's responsibility to ensure that broad agency authority is utilized in the most effective and efficient manner.

The key oversight issues to be addressed in this hearing include:

- What: What is the scope and depth of the proposed regulations?
- How: How will the regulatory process and the regulations themselves meet the legal requirements of public access to information and of transparency? How will the proposed regulations and policies meet the legal requirements to "best limit exposure or reduce the level of hazard" posed by dangerous chemicals?
- When: What is the implementation schedule for the release of the Green Chemistry regulations? What is the anticipated schedule for actual regulatory action on chemicals of concern and consumer products once the regulations have been adopted?

Statutory Requirements for the California Green Chemistry Regulations.

The bulk of the statutory requirements for establishing regulations governing the Green Chemistry program was included in AB 1879 in Health and Safety Code (HSC) Section 25252 *et seq.* Its companion bill, SB 509, in HSC Section 25251 and 25256 *et seq.*, also includes provisions related to the regulations. AB 1897 requires DTSC to adopt regulations that fulfill two major requirements: 1) establish a process to *identify and prioritize* chemicals or chemical ingredients in consumer products that may be considered a chemical of concern; and 2) establish a process for *evaluating* chemicals of concern in consumer products, and their potential alternatives, to determine how best to limit exposure or to reduce the level of hazard posed by the chemical.

Identifying and prioritizing chemicals. Pursuant to AB 1897, HSC Section 25252 requires DTSC, on or before January 1, 2011, to adopt regulations to establish a process to *identify and prioritize* chemicals or chemical ingredients in consumer products that

may be considered chemicals of concern. When identifying and prioritizing chemicals, DTSC must reference and use available information; establish evaluation criteria that include the traits, characteristics and endpoints of chemicals and their alternatives that are included in the clearinghouse data required pursuant to SB 509; and consider, at a minimum, the following:

1. The volume of the chemical in commerce;
2. The potential for exposure to the chemical in a consumer product; and
3. Potential effects on sensitive subpopulations, including infants and children.

Evaluating chemicals of concern and their potential alternatives. Pursuant to AB 1897, HSC Section 25253 requires DTSC, on or before January 1, 2011, to adopt regulations to establish a process for *evaluating* chemicals of concern in consumer products, and their potential alternatives. The statutory goal of the regulations is to determine how best to limit exposure or to reduce the level of hazard posed by chemicals of concern.

Potential alternatives and life cycle analysis. The regulations adopted pursuant to this Section must establish a process that includes an evaluation of the availability of potential alternatives and potential hazards posed by those alternatives, as well as an evaluation of critical exposure pathways. This process must include a life cycle assessment that considers issues such as product function or performance; materials and resource consumption; water and air quality impacts; production, in-use, and transportation energy inputs; greenhouse gas emissions; waste and end-of-life disposal; and public health, economic and environmental impacts.

Regulatory responses. HSC Section 25253 also requires that the regulations specify the range of regulatory responses that DTSC may take following the completion of the alternatives analysis. The regulatory responses include, but are not limited to, the following actions:

1. Not requiring any action;
2. Imposing requirements to provide additional information needed to assess a chemical of concern and its potential alternatives;
3. Imposing requirements on the labeling or other type of consumer product information;
4. Imposing a restriction on the use of the chemical of concern in the consumer product;
5. Prohibiting the use of the chemical of concern in the consumer product;
6. Imposing requirements that control access to or limit exposure to the chemical of concern in the consumer product; or
7. Imposing requirements for the manufacturer to manage the product at the end of its useful life, including recycling or responsible disposal of the consumer product.
8. Imposing a requirement to fund green chemistry challenge grants where no feasible safer alternative exists.
9. Any other outcome the department determines accomplishes the requirements of this article.

Additional regulatory requirements. In developing the Green Chemistry regulations, DTSC must consult with all appropriate state agencies and conduct public workshops to provide opportunities for interested parties to comment. Additionally, DTSC must, under most circumstances, subject the proposed regulations to a multimedia life cycle evaluation and then submit the evaluation and the regulations to the California Environmental Policy Council (Council) for review. If the Council determines that the proposed regulations will adversely impact public health or the environment, or that alternatives exist that would be less adverse, the Council must recommend alternative measures that DTSC or other state agencies may take to minimize the adverse impact. DTSC is then required to revise the proposed regulations accordingly.

The Green Chemistry Regulation Development Process.

DTSC's "Straw Proposal for Safer Alternatives Regulations" (released 10/ 2009). Statute requires DTSC to adopt regulations for identifying, prioritizing and evaluating chemicals of concern by January 1, 2011. In October 2009, DTSC released a document that resembled a preliminary draft of the regulations, known as the "Straw Proposal for Safer Alternative Regulations," or the "straw proposal." Among other components, the straw proposal included a broad process for the identification of chemicals of concern in consumer products, including the designation of specific chemicals; requirements for manufactures to prioritize chemicals, gather data, evaluate chemicals, and prepare alternative analyses; an option for manufacturers to petition for exemption from the process; and the potential regulatory response actions for products that contain chemicals of concern.

The straw proposal resulted in public comments and recommendations, including from Assemblymembers Chesbro, Feuer and Jones, and from the Assembly Republican Caucus. Additionally, members of the Green Ribbon Science Panel (GRSP), the panel of experts established by AB 1879 to advise DTSC on the development of the Green Chemistry program, provided feedback. While the comments were detailed and varied, concern was expressed across the board about the selection and prioritization process for chemicals and products and about DTSC's role in the process.

DTSC contends that the straw proposal was meant to advance the discussion on the development of the regulations and was not meant to be a formal step in the rulemaking process.

DTSC's "Framework for Regulations for Safer Products" (released 03/ 2010). In March 2010, DTSC released a conceptual "framework," or "flow-chart," for Green Chemistry regulatory decision-making. This framework includes processes to prioritize chemicals of concern in consumer products and a means of comparing alternatives for chemicals of concern. DTSC contends that the framework positions DTSC to collaborate with all stakeholders, governmental agencies and the public to transform the conceptual framework into the Green Chemistry Regulations for Safer Products.

For the next step of the regulatory process, DTSC plans to prepare an outline of the proposed regulation followed by a draft of the regulation. The draft regulation will be submitted later in 2010, opening a formal rulemaking procedure. DTSC has committed to implementing an effective and transparent Green Chemistry process that promises a safer and more sustainable use of chemicals.

DTSC's compliance with statutory timelines. AB 1897 provided a statutory requirement for the completion of the Green Chemistry regulation no later than January 1, 2011 (HSC 25252). In order to meet this deadline, DTSC must complete consultative requirements including review of the regulations by the Green Chemistry Leadership Council, External Scientific Peer Review and a Multimedia Life Cycle Evaluation by the Council. Additionally the DTSC must also meet the public notice, public comment and reporting requirements of the California Administrative Procedures Act.

In June of 2009, DTSC submitted a proposed regulatory work plan to the legislature. That work plan called for the completion of the proposed regulations by August 31, 2009, and the completion of the public comment on the final regulations by December 14, 2009. Based on this schedule, the anticipated effective date for Green Chemistry regulations was to be May 30, 2010. At this time, DTSC appears to be at least nine months behind their schedule. Given the delays and the time requirement of the APA, as well as the need for multiple external and multi-agency reviews of the regulation, it may not be possible for the DTSC to meet their legal requirements to complete the Green Chemistry regulations by January 1, 2011.

Committee Concerns and Questions.

- 1) Health and Safety Code Sections 25252 and 25253 require DTSC to adopt regulations in consultation with the Office of Environmental Health Hazard Assessment (OEHHA) and all appropriate state agencies.

Has there been a multi department, office or board process in developing the regulations to implement the provisions of the Green Chemistry statutes?

- 2) Health and Safety Code Sections 25252 and 25253 require DTSC to adopt regulations to establish a process to identify, prioritize and evaluate chemicals or chemical ingredients (and their alternatives) in consumer products that may be considered a chemical of concern. Section 25253 also requires the department to determine how best to limit exposure or to reduce the level of hazard posed by chemicals of concern.

Will the regulations take an approach that examines products, product categories, chemicals within products, a combination of these approaches or another approach?

- 3) How will the regulations ensure that a sufficiently large net is being cast to include in the program all potential chemicals of concern, including those with limited or no data, while still ensuring that swift regulatory action is taken on priority chemicals?

- 4) It is imperative to the legislature that a thorough, comprehensive toxics reduction program is instituted in a timely manner. Given the delay in developing the necessary regulations, what steps are being taken to assure that the timeframe for adopting the regulations meet the statutory January 2011, requirements of Health and Safety Code Sections 25252 and 25253?
- 5) Once the regulations are approved, when will the regulations produce regulatory actions on specific chemicals or products?
- 6) Health and Safety Code Section 25253 requires DTSC, in developing the Green Chemistry regulations, to ensure that the tools available are in a form that allows for ease of use and transparency of application.

How will the regulations required by AB 1879 ensure information transparency and strong and reliable data requirements?

How will the regulations require meaningful ingredient disclosure in order to best protect the public and the environment?

- 7) How will DTSC provide for the budgetary resources necessary to carry out the requirements envisioned in the DTSC "Framework for Regulations for Safer Products"?