Written Testimony of
Timothy F. Malloy

UCLA School of Law
UCLA Sustainable Technology and Policy Program

before the

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Committee on Environmental Safety and Toxic Materials
Honorable Bob Wieckowski, Chair

Oversight Hearing on the
Safer Consumer Products ("Green Chemistry") Informal Draft Regulations

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Good morning Chairman Wieckowski, Vice Chairman Miller, and members of the Committee. Thank you very much for inviting me to participate in this oversight hearing regarding the Safer Consumer Products informal draft regulations issued under Assembly Bill 1879 (AB 1879).

My name is Timothy Malloy. I am a Professor of Law at the UCLA School of Law, where I teach and research in the area of environmental policy and regulation, with particular emphasis on regulatory design and business responses to regulation. I am also one of two Faculty Directors of the UCLA Sustainable Technology and Policy Program (STTP), an interdisciplinary program engaged in research, teaching and outreach in the area of emerging technologies. Its mission is supporting the development of effective, balanced chemical policies, and the spread of safer chemicals and alternative manufacturing processes in the marketplace. STPP brings together researchers from across the UCLA campus and other leading schools with non-governmental organizations, policymakers and businesses in a unique, action-oriented initiative. I am also a member of the California Green Ribbon Science Panel formed under AB 1879.

I want to point at that I am speaking in an individual capacity, and that my views do not necessarily reflect those of the University, the School of Law, STPP or the Green Ribbon Science Panel.

AB 1879 is rightly viewed in California and nationally as a groundbreaking advance in chemicals policy, adopting a prevention-based approach with an emphasis on identifying and adopting safer, viable alternatives to hazardous chemicals. It is intended to do so through a systematic, scientifically rigorous, transparent process. While other programs, most notably the Toxics Use Reduction Act in Massachusetts, require businesses to engage in one form or another of alternatives analysis, California is unique in the United States in its linkage of such alternatives analyses to mandatory regulatory responses. In other words, the statute is more

than simply a "planning" statute; it calls for action on the basis of the alternatives analysis. My remarks today are directed at whether the program envisioned under the informal draft regulations is likely to achieve the remarkable vision reflected in AB 1879.

Let me begin by observing that as a general matter, the informal draft regulations are a substantial improvement over the prior informal and formal draft regulations and strawman proposals. They set out a fairly straightforward process that is responsive to many of the concerns raised by many stakeholders, and by various members of the Green Ribbon Science Panel. While one may not agree with all the positions adopted by the agency in the regulations—myself included as you will soon see—it is clear that the informal draft regulations reflect considerable thought, careful drafting and sustained commitment. Moreover, for myself as a member of the Green Ribbon Science Panel, I believe that the agency management and staff have made extraordinary efforts to ensure effective and efficient use of the Panel.

That said, and despite the agency's significant efforts, there are several aspects of the draft regulations and the nascent program more generally that I greatly fear could undermine the successful implementation of AB 1879. Two of these concerns are rooted in the limitations of the statute itself, while the third lies more with choices made by the agency in drafting the regulatory language. I aim to do more than point out problems, however, and for each concern I will identify one or more recommendations.

Data Generation/Collection Authorities. My first concern is that the Department of Toxic Substances Control (DTSC) lacks the testing and information collection authorities needed to implement the statute effectively. Without doubt, reliable information regarding a chemical's identity and uses, hazards, and likely exposure routes is central to effective policy formulation and implementation. Production of such information entails two essential, related functions. First, the relevant information must be generated, by the regulated entity, the implementing agency or some third party. Second, the information must be collected and made available to the decision-maker—in this case DTSC.

Exhibit A illustrates the points along the AB 1879 process at which DTSC will require significant amounts of information. After DTSC identifies the 3000 or so Chemicals of Concern (CoC), it will have to identify all consumer products in California in which those chemicals are found. Such an undertaking will require the collection of a tremendous amount of data from a large number of manufacturers, importers, retailers and other parties, yet the statute provides no explicit authority for DTSC for this. I want to emphasize the very significant challenges presented here. For many consumer products, the manufacturer may not know the identity of the chemicals within their products, and may have limited ability to obtain that information. In many cases, that information rests with suppliers of components and ingredients used in the final consumer products—suppliers who may be located one or more levels up the supply chain.

Next, having identified all the chemical/product combinations containing CoCs, DTSC will engage in a prioritization process that requires data regarding the products, including the hazards, the nature, quantity and duration of exposures during each product's entire

life cycle, and the availability of alternatives. Here again, DTSC is provided no explicit authority to require regulated parties to generate, collect or submit such information. Lastly, to meaningfully review the alternatives analyses submitted to it, DTSC will likewise need additional information.

To be fair, DTSC does have some limited data generation and collection authority within AB 1879 and under other legislation, most notably AB 289. Under AB 1879, one of the specifically identified regulatory responses is the imposition of "requirements to provide additional information needed to assess a chemical of concern and its potential alternatives."[1] However, this authority does not appear to be available until *after* the alternatives analysis for that chemical/product combination is complete, and is thus of little use to DTSC as it seeks to identify, prioritize and evaluate chemical/product combinations.

The second source of information authority lies outside of AB 1879, in Section 57018 of the Health and Safety Code (generally referred to as AB 289). That section establishes an elaborate administrative process by which regulators can obtain information regarding a chemical from its manufacturer. The scope of data covered is also limited; despite references to "information" generally, the law essentially focuses upon development of analytical detection methods and "fate and transport" data.[2] It does not appear to cover the generation and submission of toxicity testing data or other health and safety information. This conclusion is supported by the scant legislative history of the law; staff analysis repeatedly emphasized the need to secure reliable methods for detecting chemicals in environmental media and humans rather than health and safety testing[3] Indeed, proponents of the law specifically noted the difference between the federal high production volume program (which included toxicity testing) and AB 289 (which did not).[4]

In the informal draft regulations, DTSC incorporates a creative, elegant approach to encourage *voluntary* submission of information by consumer product and chemical manufacturers, importers and retailers. Section 69501.5 of the draft regulations provides that DTSC shall seek necessary information by requesting it from those entities. Should a company refuse DTSC's request, the agency is required to identify the recalcitrant party in a "Failure to Respond List" on the agency's website. This "shaming" approach is clearly designed to pressure companies to provide information voluntarily, or face the potential negative reputational impact of being branded uncooperative. While protection

[1] Section 25253(b)(2).
[2] AB 289 identifies the following as the type of information targeted: The information that the state agency requests may include, but is not limited to, any of the following: (A) An analytical test method for that chemical, or for metabolites and degradation products for that chemical that are biologically relevant in the matrix specified by the state agency. (B) The octanol-water partition coefficient and bioconcentration factor for humans for that chemical. (C) Other relevant information on the fate and transport of that chemical in the environment.
[3] Assembly Committee on Environmental Safety and Toxic Materials, Bill Analysis of AB 289 (April 14, 2006).
[4] Assembly Third Reading, Bill Analysis of AB 289 (May 31, 2006).

of reputation clearly plays some role in business behavior, the strength of the influence is uncertain and very contextual.[5]

Recommendations regarding Data Generation and Collection. With respect to information collection authority, DTSC should adopt a broad interpretation of the language in AB 289. In particular, because the statute explicitly covers information regarding "fate and transport," it appears that data regarding the commercial distribution, uses and management practices is ostensibly within AB 289's reach. Such information is essential to understanding the manner in which the relevant chemicals may enter the environment. Moreover, the statute by its own terms is not limited to "fate and transport" data only, but instead covers "information" generally. DTSC has exercised such authority to some extent already in its call-in regarding carbon nanotubes.[6] Assertion of that authority over health and safety testing is substantially more problematic, for the reasons discussed above.

At the legislative level, revisions to AB 1879, AB 289, or both will be needed to provide DTSC with clear adequate authority to call in the relevant information, including data regarding distribution and use and existing health and safety data. The revision should address the issue of data that is not in the possession or control of the chemical manufacturer by extending to all entities and individuals having relevant information (i.e., use and exposure information held by distributors or commercial end users). Legislation should also provide DTSC with express authority to require health and safety testing. Alternatively or as a supplement, the statute could provide for a government testing program, perhaps akin to the activities of the National Toxicology Program at the federal level.[7] Such a program would require significant funding, whether implemented in-house or through a grant program.

Resource Constraints. A regulatory program is only as robust as its funding source. Thus, even carefully crafted, protective statutes can be undercut by under-funding. In programs facing expensive procedural hurdles, the effect of under-funding is exacerbated. The story of federal Toxic Substances Control Act (TSCA) is illustrative. Even as dollars and personnel flooded the federal Superfund program and Clean Air Act program in the 1990's, TSCA faced a resource drought. The program was under-funded and under-staffed, unable to keep pace with the challenges that faced it, particularly after the *Corrosion Proof Fittings* court further defined the tasks involved in regulating under Section 6.[8] The lesson from TSCA is that you get what you pay for. Congress handed

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[5] *See* David Vogel, The Market for Virtue: The Potential and Limits of Corporate Social Responsibility (2005); Andrew A. King and Michael J. Lenox, *Industry Self-Regulation without Sanctions: The Chemical Industry's Responsible Care Program*, 43 Academy of Management Journal 698 (2000).

[6] Letter from Jeffrey Wong, DTSC regarding Chemical Information Call-In Carbon Nanotubes (January 22, 2008) (http://www.dtsc.ca.gov/TechnologyDevelopment/Nanotechnology/upload/Formal_AB289_Call_In_Letter_CNTs.pdf (accessed September 24, 2009))

[7] *See* Victoria McGovern, *National Toxicology Program: Landmarks and the Road Ahead*, 112 Environmental Health Perspectives A874 (November 2004)

[8] TOXIC SUBSTANCES CONTROL ACT: LEGISLATIVE CHANGES COULD MAKE THE ACT MORE EFFECTIVE, 19-21 (GAO/RCED-94-103, September 26, 1994).

EPA the massive job of prioritizing, testing, evaluating and regulating thousands and thousands of chemicals. Yet neither the TSCA legislation nor the administrations that implemented it ever established adequate, stable funding for this enormous undertaking. Not surprisingly, the federal program has languished.

AB 1879 faces the same fate. Like TSCA, AB 1879 presents the implementing agency with a challenge of heroic proportions but no additional resources. The agency has made an admirable attempt to craft the best program it can given those constraints, but—as I discuss in more detail below—the result is a program that leaves excessive discretion to the regulated companies. In other words, the limited resources available to the agency could functionally transform AB 1879 into a voluntary program. The Senate Environment Committee analysis of the bill recognized the resource issue in 2008, observing, "if the state is to provide the necessary wherewithal to provide a genuinely comprehensive program, it is probably inescapable that future legislation needs to more fully consider a fee-based program." [9] That time has come.

Recommendations Regarding Resource Constraints. There are two primary options available to address the issue of resource constraints. The first directly increases the revenue available to DTSC through new fees. The second relies upon the market to provide third party oversight of the regulated companies, oversight that DTSC would have provided had adequate resources been available.

Permitting Fees. The legislature could establish stable funding for the AB 1879 program by mandating the collection of fees from businesses regulated under the program sufficient to recover the reasonable costs of administering the program.[10] Many examples of such fees are already on the books, including air quality permitting programs and water rights permitting.[11] The difficulty of enacting such a funding mechanism depends upon its characterization under Article XIII.A of the California Constitution (incorporating Propositions 13 and 26). Section 3 of that Article requires that taxes and fees be approved by a supermajority in the legislature, with the exception of, among other things, "[a] charge imposed for the reasonable regulatory costs to the State incident to issuing licenses and permits, performing investigations, inspections, and audits,…and the administrative enforcement and adjudication thereof." Fees designed to recover the costs of permitting programs may be approved by a simple majority of the legislature.

Permitting is one form of regulation in which an individual business receives governmental approval to engage in a specific activity subject to particular legally binding terms in the approval.[12] Examples include the issuance of permits to construct

[9] Senate Committee on Environmental Quality, A.B. 1879 Analysis at 11.
[10] It will not be enough to simply *authorize* the Department to establish a fee system in support of the program, as AB 32 did; the legislation should *mandate* it. In reviewing AB 32 implementation, the Legislative Analyst's Office has twice admonished the administration's failure to actually implement the authorized fee program. California Legislative Analyst's Office, *Resources 2008-09 Analysis* B-91 through B-95.
[11] Ca. Health & Safety Code Section 40510(b); *CA Farm Bureau Federation v. State Water Resources Control Board*, 51 Cal. 4th 412 (2011).
[12] Terry Davies, REFORMING PERMITTING 11(2001).

for new air emission sources, or the registration of new pesticides. Permitting can be contrasted to generally applicable rules that are imposed *en masse* upon an entire population of businesses engaged in similar activities. Although AB 1879 is not explicitly characterized in its text as a permitting program, the statute and the informal draft regulations essentially describe a permitting process. Individual manufacturers, importers or retailers of specific consumer products must submit an alternatives analysis and recommended regulatory response. DTSC will review those materials, and issue an individualized regulatory response either banning the sale of the product or establishing conditions for its continued sale. This permitting program, which includes identification and prioritization of CoCs and products, review of alternatives analyses, oversight, auditing and enforcement, will impose substantial regulatory costs on DTSC.

Market-Based Oversight. In the event that stable funding of DTSC is not achievable, significant portions of the resource-intensive oversight function could be shifted to the market; that is, to private oversight providers. As in the informal draft regulations, the manufacturer would be legally responsible for submitting a proposed alternatives analysis prepared by a qualified assessor. However, the regulation should also mandate that prior to submission, the manufacturer must obtain certification from an independent third party consultant that the alternatives analysis meets the substantive and procedure requirements of the regulations.[13]

The independent third party would be licensed for such work by DTSC. The certification requirement will enhance the quality of the submission, and reduce the time and resources required for DTSC review. The requirement that the consultant be independent acknowledges the fact that the manufacturer will have a material stake in the outcome of the analysis, particularly where the potential alternatives could supplant the manufacturer's product. Indeed, studies of innovation of safer alternatives demonstrate that significant innovation in chemicals/products/processes most often come from outside the existing manufacturer.[14] To protect both the substantive evaluation and the legitimacy of the process, the alternatives analysis review must be conducted by a neutral party without a financial interest in its outcome.[15] Moreover, by requiring use of independent third party alternatives analysis, the program will encourage innovation. Outside firms are more likely to invest in the development safer alternatives knowing

[13] Manufacturers may raise concerns regarding the sharing of trade secrets with third parties. As a practical matter, businesses often use outside consultants on matters relating to or involving trade secrets. There are well developed, widely used mechanisms for protecting trade secrets from disclosure in such circumstances, including legally enforceable non-disclosure agreements. Moreover, rules of conduct for professional engineers prohibit the disclosure of trade secrets. *See* Steven D. Maurer and Michael T. Zugelder, *Trade Secret Management in High Technology: A Legal Review and Research Agenda*, 11 Journal of High Technology Management Research 155, 161-165 (2000).

[14] Richard Stewart, Regulation, Innovation, and Administrative Law: A Conceptual Framework, 69 California Law Review 1256 (1981); Kurt Strasser, Cleaner Technology, Pollution Prevention and Environmental Regulation, 9 Fordham Environmental Law Journal (1997).

[15] Of course experience in the accounting sector has shown that third parties are not consistently able to maintain their independence and may be "captured" by their clients. John C. Coffee, Jr., *Gatekeeper Failure And Reform: The Challenge Of Fashioning Relevant Reforms*, 84 B.U.L. Rev. 301 (2004). Nonetheless, the likelihood of such capture is substantially increased where the persons performing the analysis are employees of the firm.

their innovation will be evaluated in a fair and object matter. This, in turn will motivate the regulated manufacturer to develop safer substitutes in-house or risk losing market share.

Clearly the third party oversight model raises serious concerns regarding the independence of the third party, as well as implementation issues regarding certification and development of sufficiently clear and objective standards, methods and protocols. While it is therefore not the optimal solution to the resource issue, and raises political acceptability issues of its own, it does provide significantly more transparency and accountability than a self-executing model in which individual businesses perform analysis and evaluation without any substantial agency oversight.

Substantive Standards for Identifying Safer Alternatives. As noted previously, the informal draft regulations set out a detailed process, including provisions for the submission and review of an alternatives analysis workplan, final alternatives analysis report, and recommended regulatory responses. As part of those provisions, the draft regulations identify the factors to be considered by the regulated business in assessing and comparing the alternatives. Most of these factors—focusing on health impacts, environmental and ecological impacts, technical feasibility, and economic impacts—are rooted in the statute. Yet, despite the thoughtful attention to process, the regulations lack substantive standards to guide two central decisions; first, whether a safer, viable alternative exists, and second, what the appropriate regulatory response is.

This lack of substantive standards is particularly troublesome here because the draft regulations provide the regulated business with extraordinary discretion. For example, Section 69505.4(b) directs businesses to "use available quantitative information, supplemented by available qualitative information and analysis, to evaluate and compare the Priority Product and each of the alternatives. . . ." The next subsection simply states that business shall select the alternative based upon that comparative analysis. While DTSC retains the authority to review the alternatives analysis report, that review appears to be limited to determining whether the report is "in compliance" with the regulations. Because the regulations are primarily process-based and lack significant substantive standards, the DTSC compliance review may not reach the underlying substance.

Recommendations Regarding Substantive Standards. Clear substantive decision rules are essential in this context. The choices made among alternatives will likely require trade-offs within criteria (for example, within the human health criteria comparing carcinogenicity with endocrine disruption) or between them (such as balancing an adverse health impact against an environmental impact.) The balancing of such incommensurables is by nature a subjective process driven by the values under which a decision maker is operating. Essentially, it requires the decision-maker to weigh the relative importance of various attributes or combinations of attributes, forcing the decision-maker to confront difficult issues such as the extent to which concerns about risks of cancer or reproductive toxicity trump global warming concerns.

Because the alternatives evaluation is so value-laden, the decision-making process should be directed by clearly articulated program expectations and still more specific decision rules. Examples of such decision frameworks can be found in federal environmental law including the Significant New Alternatives Program (SNAP) – designed to verify the safety of substitutes for ozone-depleting compounds and the Superfund program—regarding the selection of remedial alternatives for contaminated hazardous waste sites.[16] SNAP identifies a series of guiding principles for that program, including reliance upon a qualitative comparative risk approach.[17] The Superfund statute and implementing regulations establish a more explicit array of program expectations coupled with set of nine narrative decision criteria.[18]

Clearly, both the SNAP and the Superfund programs have deficiencies; reference to those programs is not a general endorsement of their outcomes. However, they do represent well developed examples of decision frameworks involving complex, multi-criteria evaluations. The approaches adopted in those programs—the balancing of narrative, weighted criteria—can be adopted in the alternatives analysis process as well. The nature and scope of specific decision rules should be a direct extension of the social values underlying the guiding principles and program expectations. The regulation could specifically identify, as a general matter, which alternatives analysis variables carry more weight (e.g., reduction of toxics is generally more weighty than energy impacts); identify relative rankings of specific concerns within variables (e.g., skin irritation less weighty than reproductive toxicity); or express a specific trade-off (e.g., a cost-effective alternative is defined as an alternative where the material cost is no more than 25% greater than the baseline CoC product). The more specific the program goals, expectations, and decision rules, the more guided DTSC will be in determining the overall viability of alternatives relative to the baseline.

Again, thank you for the opportunity to provide my thoughts on these issues.

[16] *See* 40 C.F.R Sections 300.430.
[17] *See* 59 Fed. Reg. 13044, 13046 (March 18, 1994).
[18] For example, Superfund program expectations include use of treatment rather than containment where practical; return groundwater to beneficial uses; use innovative technology where comparable to conventional technology. 40 CFR Section 300.430(a)(1)((iii) (2009).